The Institute of Chartered Accountants of Bangladesh (ICAB)

STRATEGIC BUSINESS MANAGEMENT AND LEADERSHIP

Volume I

Workbook
For CA Advanced Level Exams

CA BANGLADESH

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF BANGLADESH

www.icab.org.bd

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The Institute of Chartered Accountants of Bangladesh

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Questions within the Workbook should be treated as preparation questions, providing you with a firm foundation before you attempt the exam-standard questions. The exam-standard questions are found in the Question Bank.

CA OVERVIEW

The ICAB chartered accountancy qualification, the CA, is one of the most advanced learning and professional development programmes available. Its integrated components provide an in-depth understanding across accountancy, finance and business. Combined, they help build the technical knowledge, professional skills and practical experience needed to become an ICAB Chartered Accountant.

Each component is designed to complement each other, which means that students can put theory into practice and can understand and apply what they learn to their day-to-day work. The four components are:

ICAB constantly reviews the content of the CA qualification to reflect real life business challenges. Today's most urgent business challenges range from sustainability, to rapid changes in technology and the role of ethics in the profession. We work closely with employers, tuition providers, academics and examiners to ensure that the CA equips the chartered accountants of the future with the skills and knowledge they need to meet these challenges and to be successful.

THE CA QUALIFICATION AND SUSTAINABILITY

Finance and accounting professionals need to move beyond simply measuring and reporting the impact of climate change, environmental regulation, supply chain pressure and rising energy costs. They must focus on understanding those implications and integrating them into financial management and business planning. ICAB has been at the forefront of this movement over the past decade and has adapted the CA qualification to reflect that. We see its role as not simply integrating knowledge and understanding the broader implications of environmental, social and governance issues into organisations, but also seeding this thinking into the mindset of our members.

Our syllabus and ethical and professional development framework contribute towards creating ICAB Chartered Accountants who recognise that sustainability is at the core of what they do and are capable of actively using their business skills to analyse how to make the new sustainable economy work for their business.

THE CA QUALIFICATION AND TECHNOLOGY

Rapid growth in technology has automated many compliance elements of accountancy. But, with technology also comes complexity and risk. Accountants need to adapt and develop new skills to manage these technological changes such as data analytics, automation and cyber security.

While there are many new technology capabilities that have broad application across the business and consumer environment, four trends have the greatest potential to transform the accountancy profession: **A**rtificial intelligence, **B**lockchain, **C**yber security and **D**ata (ABCD of technology).

These and other innovations are likely to have a significant impact on the way that accountants access, move and manage business finances.

Technology can provide information more quickly and often more accurately than humans, but it cannot replicate human intelligence and quality decision making. Therefore, chartered accountants hold a key role in data analytics, in validating the source of the data, interpreting and analysing the outputs. Technology provides opportunities for chartered accountants to use their professional skills to add value to their clients and/or the businesses in which they work.

As routine and compliance work reduces, there is greater focus on the development of skills which equip professionals to work with the outputs of automated processes, with other specialists, and in a changing world.

We believe that skills such as analysis, interpretation, professional scepticism, communication, collaboration, adaptability, resilience, and commerciality are essential for tomorrow's business leaders; these are imbedded throughout the CA exams and professional development framework.

THE CA QUALIFICATION AND ETHICS

Culture and values are central to long-term success. How a business adopts an ethical approach towards its staff, shareholders, customers and regulators, as well as within its own operations, has a bigger impact than any performance measure or operational improvement.

Demonstrating a clear commitment to ethical behaviour is one of the main drivers of better performance; it delivers an advantage when recruiting, it adds value to a brand, and it instils trust and confidence in partners, suppliers and others that the organisation is well run and resilient.

Achieving that is not a matter of simple knowledge. Few ethical challenges will have simple right and wrong responses. They require technical understanding, rigorous appraisal and skillful handling. Accountants must have the necessary skills to apply professional judgement in a given situation, taking into account what has been learned as a CA student about their ethical responsibilities as a Chartered Accountant.

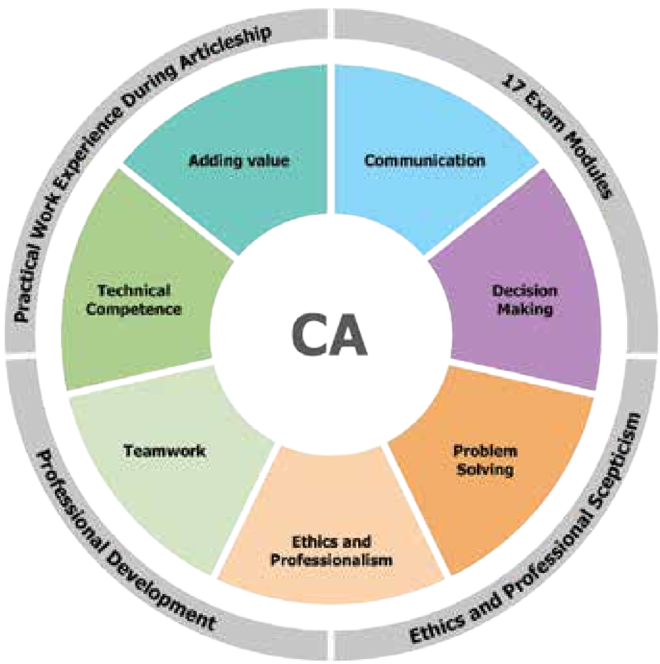
There will be unique ethical challenges throughout any Chartered Accountant's process of learning and career. They serve a variety of masters: senior management, external stakeholders, regulators; and above all the public interest responsibility of their profession.

Because of the rigorous and effective training (and continued professional development) chartered accountants can speak up and take a lead.

None of this can happen without one critical element: professionalism. That goes beyond merely knowing the Code of Ethics: it means embodying the right behaviours and having the ability and willingness to push back against those who might compromise the integrity of the business.

That confidence comes from a qualification that prioritises not only technical knowledge of the ethical framework but also challenges accountants with scenarios that accurately reflect the ethical dilemmas a Chartered Accountant may face in business.

PROFESSIONAL DEVELOPMENT



ICAB Chartered Accountants are known for their professionalism and expertise. Professional development prepares students to successfully handle a variety of different situations that they encounter throughout their career. The CA qualification improves students' ability and performance in seven key areas:

- Adding value – add value to the organisation, team or role in order to achieve objectives
- Communication – communicate effectively at all levels, using oral, written and presentational skills to achieve positive outcomes
- Decision making – gather, interpret and evaluate data to make effective decisions
- Ethics and professionalism – behave ethically and sustainably while respecting others to uphold the values of the organisation and the accountancy profession
- Problem solving – analyse a problem, generate options and make recommendations to arrive at appropriate solutions
- Teamwork – work collaboratively as a member or leader of a team to achieve shared goals
- Technical competence – seek, learn and use technology and technical information to support the achievement of organisation or team goals
- There are 17 exams over three levels – Certificate, Professional and Advanced.

CERTIFICATE LEVEL

There are seven exams at this level that introduce the fundamentals of accountancy, finance and business. Students may be eligible for credit for some exams if they have studied a qualification we recognise.

The Certificate Level exams are each 1.5 hours long except Business Laws and Information Technology which are 1 hour long and can be sat four times in the year.

PROFESSIONAL LEVEL

The next seven exams build on the fundamentals and test students' understanding and ability to use technical knowledge in real-life scenarios. The exams are taken in three times in the year.

The Professional Level exams are 3.5 hours long.

The Professional Level exams are flexible and can be taken in any order to fit with a student's day-to-day work. The Business Planning: Taxation & Compliance and Business Strategy and Technology exams in particular help students to progress to the Advanced Level.

The suite of Business Planning: Taxation & Compliance and Business exams is based on the same syllabus structure and skills frameworks, and will give students the opportunity to demonstrate their learning and use this in the context of taxation.

Financial Accounting and Reporting is in the contexts of IFRS Standards.

ADVANCED LEVEL

The Corporate Reporting and Strategic Business Management & Leadership exams test students' understanding and strategic decision-making at a senior level. They present real-life scenarios, with increased complexity and implications from the Professional Level exams.

The Case Study tests all the knowledge, skills and experience gained so far. It presents a complex business issue which challenges students' ability to problem solve, identify the ethical implications and provide an effective solution.

The Advanced Level exams are taken three times in the year.

The Corporate Reporting and Strategic Business Management & Leadership exams are 3.5 hours long. The Case Study exam is 4.5 hours long.

If a student is studying the CA independently, they should consider their future ambitions while selecting which exams to sit.

FLEXIBILITY

There are no regulations stipulating the order in which students must attempt the exams, allowing CA Firms to design Articleship programmes according to business needs. The exception to this rule is the Case Study. For attempting Case Study, students must be attempted the other subjects of Advanced Level.

Students have the unlimited attempts at all levels of exams.

CREDIT FOR PRIOR LEARNING (CPL)

Students with previous qualifications may be eligible to apply for CPL for modules which have been allowed by ICAB. For more information, visit **https://www.icab.org.bd/page/credit-for-prior-learning-cpl-exemption**.

DATA ANALYTICS

Chartered Accountants are increasingly using more advanced approaches to interrogate client data. To respond to this, ICAB has incorporated data analytics software within the Audit and Assurance and Corporate Reporting modules.

Embedding data analytic techniques within our exams ensures that we continue to reflect the current and future workplace and will also help to develop students' judgement professional scepticism and critical thinking skills.

Strategic Business Management & Leadership

Module aim

To enable you to demonstrate quantitative and qualitative skills, in order to make realistic business recommendations in complex scenarios. Business awareness will need to be demonstrated at strategic, operating and transactional levels.

On completion of this module, in a national or global context, and for a range of different business structures and industry scenarios, you will be able to:

- Analyse and identify the external environment and internal strategic capability of an entity; evaluate the consequences of strategic choices; recommend strategies to achieve stakeholder objectives, recommend appropriate methods of implementing strategies and monitoring strategic performance; manage business risks; and advise on corporate governance.
- Identify and advise upon appropriate finance requirements; evaluate financial risks facing a business and advise upon appropriate methods of measuring and managing those risks; provide valuations for businesses and securities; and advise upon investment and distribution decisions.
- Identify and explain ethical issues. Where ethical dilemmas arise, students will be able to recommend and justify and determine appropriate actions and ethical safeguards to mitigate threats.
- Interpret and apply corporate reporting information in evaluating business and financial performance; recognise and explain the corporate reporting consequences of business and financial decisions; apply corporate reporting information in appropriate models to determine asset, equity and entity valuations, demonstrating an understanding of the usefulness and limitations of accounting information in this context.
- Appraise and explain the role of assurance in raising new equity and debt funding and in the subsequent monitoring of such funding arrangements; understand, explain and evaluate the role of assurance in selecting and implementing key business decisions including acquisitions and strategic alliances; understand and explain the role of assurance in financial and business risk management.

Prior Knowledge

This module assumes and develops the knowledge and skills acquired in the Financial Accounting & Reporting module, the Business Strategy & Technology module and the Financial Management module.

Background knowledge based upon the strategic elements of the Business Planning: Taxation & Compliance and the Audit and Assurance module will also be required in evaluating the business and financial risks of reporting entities.

Ethics

Ethical codes will be those issued by IESBA and ICAB. The ethical implications will be at both the organisational level and for individuals, particularly with respect to the accountant in business.

Ethics and Professional Scepticism

Ethical thinking must be at the forefront of the strategic business awareness that students will be demonstrating. Students will be considering notions of stakeholder impact and scope as well as appropriate safeguards within a specific learning outcome. Over and above this, recommendations relating throughout the syllabus will only by definition be valid if they fulfil fundamental requirements of being fair and just. This is guided by specific focus across a range of considerations from social responsibility and sustainability to transparency. Professional scepticism will need to be evidenced in complex scenarios, recognising bias and gaps in evidence.

Method of assessment

The Strategic Business Management & Leadership exam is 3.5 hours long. The exam will contain questions requiring integration of knowledge and skills, including ethics. The exam will consist of two questions, and ethical issues and problems could appear in either question.

Specification grid

This grid shows the relative weightings of subjects within this module and should guide the relativestudy time spent on each. Over time the marks available in the assessment will equate to the weightings below, while slight variations may occur in individual assessments to enable suitably rigorous questions to be set.

	Weighting (%)
1 Business Strategy, Management and Leadership	30-40
2 Financial Strategy Financial Structure and Financial Reconstruction Financial Instruments and Financial Markets	25-35
3 Corporate Reporting	15-20
4 Assurance	10
5 Ethics	5-10

Key resources

Whether you're studying the CA qualification with an employer, at university, independently, or aspart of an articleship, we provide a wide range of resources and services to help you in your studies.

Syllabus, skills development and technical knowledge grids

The syllabus presents the learning outcomes for each exam and should be read in conjunction withthe relevant technical knowledge grids and, where applicable, the skills development grids.

Exam support

A variety of exam resources and support have been developed on each exam to help you on yourjourney to exam success. This includes expert guides, hints and tips, tuitions and more.

Skills within the CA

Professional skills are essential to accountancy and your development of them is embeddedthroughout the CA qualification.

The level of competency required in each of the professional skills areas to pass each module examincreases as CA trainees progress upwards through each Level of the CA qualification. The skills progression embedded throughout the CA qualification ensures CA trainees develop the knowledge and professional skills necessary to successfully operate in the modern workplace and which are expected by today's forward-thinking employers.

The following professional skills areas are present throughout the CA qualification.

Skill area	Overall objective
Assimilating and using information	Understand a business or accounting situation, prioritise by determining key drivers, issues and requirements and identify any relevant information.
Structuring problems and solutions	Structure information from various sources into suitable formats for analysis and provide creative and pragmatic solutions in a business environment.
Applying judgement	Apply professional scepticism and critical thinking to identify faults, gaps, inconsistencies and interactions from a range of relevant information sources and relate issues to a business environment.
Concluding, recommending and communicating	Apply technical knowledge, skills and experience to support reasoning and conclusion and formulate opinions, advice, plans, solutions, options and reservations based on valid evidence and communicate clearly in a manner suitable for the recipient.

The following provides further detail on the professional skills that you will develop in this particular module.

Assimilating and using information

Understand the situation and the requirements

- Demonstrate understanding of the business context
- Identify and understand the requirements
- Recognise and evaluate new and complex ideas within a scenario
- Identify and explain the needs of customers and clients
- Explain different stakeholder perspectives and interests
- Identify and evaluate risks within a scenario
- Identify and evaluate elements of uncertainty within a scenario
- Identify and explain ethical issues including public interest and sustainability issues within a scenario

Identify and use relevant information

- Interpret and assimilate information provided in various formats
- Evaluate the relevance of information provided
- Filter information provided to identify critical facts

Identify and prioritise key issues and stay on task

- Identify and explain business and financial issues from a scenario
- Prioritise key issues
- Work effectively within time constraints
- Operate to a brief in a given scenario

How skills are assessed: you may be required to:

- Draw conclusions in the following ways
  - From data, facts, calculations, judgments and own analysis;
  - On complex assurance engagements;
  - By identifying weaknesses in financial information systems and their potential consequences;
  - By distinguishing between the qualities of data provided or other evidence generated; and
  - By developing risk management solutions in an audit and corporate reporting environment.
- Present and communicate their recommendations in the following ways:
  - From using a report/memorandum in response to a specific technical issue and in accordance with client requirements;
  - By using reasoned, practicable advice that is clear and concise, supported by calculations or analysis of technical/business issues identified;
  - By using judgement to select the most appropriate audit procedures in the context of risks identified; and
  - By justifying a specific recommended action when a variety of options are available.
- Explain the limitations of their conclusions or recommendations.

Structuring problems and solutions Structure data

- Structure information from various sources into suitable formats for analysis
- Identify any information gaps
- Frame questions to clarify information
- Use a range of data types and sources to inform analysis and decision making
- Structure and analyse financial and non-financial data to enhance understanding of business issues and their underlying causes
- Present analysis in accordance with instructions and criteria

Develop solutions

- Identify and apply relevant technical knowledge and skills to analyse a specific problem
- Use structured information to identify evidence-based solutions
- Identify creative and pragmatic solutions in a business environment

- Identify opportunities to add value
- Identify and anticipate problems that may result from a decision
- Identify a range of possible solutions based on analysis
- Identify ethical dimensions of possible solutions
- Select appropriate courses of action using an ethical framework
- Identify the solution which is the best fit with acceptance criteria and objectives
- Define objectives and acceptance criteria for solutions

How skills are assessed: you may be required to:

- Business management
  - Undertake a critical assessment of key business issues
  - Structure market data and industry data from various sources
  - Explain and evaluating the strengths and weaknesses of an organisation or segments of anorganisation
  - Evaluate the impact of decisions on business strategy
  - Evaluate the impact of financial strategy on business strategy
- Finance
  - Undertake valuations, where the information is incomplete, suspect or unsuitable
  - Undertake financial risk analysis and considering the management of financial risks
  - Evaluate the impact of business strategy on financial strategy
- Corporate reporting
  - Consider relevance and reliability of unstructured information
  - Evaluate the impact and legitimacy of a range of financial reporting treatments
  - Deal with complex financial reporting information
  - Impact of future events on financial statements
  - Impact on financial statements of delaying or modifying business and financial decisions
  - Evaluate business position, prospects and risks
- Assurance
  - Understand business and inherent risks in complex scenarios
  - Evaluate the control environment
  - Undertake selective financial analysis
  - Evaluate risk and control evaluation in the context of IT
  - Undertake assurance to support specific transactions (eg, due diligence)
  - Apply professional scepticism
- Ethics
  - Identify ethical problems in complex scenarios and structuring appropriate actions

Applying judgement

Apply professional scepticism and critical thinking

- Recognise bias and varying quality in data and evidence
- Identify faults in arguments
- Identify gaps in evidence
- Identify inconsistences and contradictory information
- Assess interaction of information from different sources
- Exercise ethical judgement

Relate issues to the environment

- Recognise bias and varying quality in data and evidence
- Identify gaps in evidence
- Identify inconsistencies and contradictory information
- Assess interaction of information from different sources
- Exercise ethical judgement

How skills are assessed: you may be required to:

- Drawing of inferences and conclusions from prior qualitative and quantitative analysis, and other information, in order to solve problems and developing a solution, or alternative solutions;
- Select between technical choices;
- Filter data to identify critical elements;
- Prioritise information, issues or tasks;
- Identify omissions in the information provided;
- Evaluate inconsistencies in information;
- Distinguish between the various qualities of the data provided;
- Evaluate the impact of business, financial and economic factors;
- Evaluate the effects of future events;
- Evaluate the appropriateness of accounting policy and estimation selection;
- Compare the effects of a range of estimates, outcomes or financial treatments;
- Exercise ethical judgement;
- Identify key linkages; and
- Draw appropriate conclusions from data provided to satisfy specified objectives and assessing the materiality of errors and omissions.

Concluding, recommending and communicating Conclusions

- Apply technical knowledge to support reasoning and conclusions
- Apply professional experience and evidence to support reasoning
- Use valid and different technical skills to formulate opinions, advice, plans, solutions, options and reservations

Recommendations

- Present recommendations in accordance with instructions and defined criteria
- Make recommendations in situations where risks and uncertainty exist
- Formulate opinions, advice, recommendations, plans, solutions, options and reservations based on valid evidence
- Make evidence-based recommendations which can be justified by reference to supporting data and other information
- Develop recommendations which combine different technical skills in a practical situation Communication

- Present a basic or routine memorandum or briefing note in writing in a clear and concise style
- Present analysis and recommendations in accordance with instructions
- Communicate clearly to a specialist or non-specialist audience in a manner suitable for the recipient
- Prepare the advice, report, or notes required in a clear and concise style

How skills are assessed: you may be required to:

- Draw conclusions from data, facts, calculations, judgements and own analysis;
- Draw conclusions on complex assurance engagements;
- Draw conclusions by identify weaknesses in financial information systems and their potential consequences;
- Draw conclusions by distinguishing between the qualities of data provided or other evidence generated;
- Draw conclusions by developing risk management solutions;
- Draw conclusions by making strategic decisions; and
- Draw conclusions by valuing a company or a financial instrument.
- Present a report/memorandum in response to a specific technical or business issue and in accordance with client requirements.
- Present reasoned, practicable advice that is clear and concise, supported by calculations or analysis of technical or business issues identified.
- Justify a specific recommended action when a variety of options are available.

To help you develop your ability to demonstrate competency in each professional skills area, each chapter of this Workbook includes up to four Professional Skills Guidance points.

Each Professional Skills Guidance point focuses on one of the four CA Professional Skills areas and explains how to demonstrate a particular aspect of that professional skill relevant to the topic being studied. You are advised to refer back to the Professional Skills Guidance points while revisiting specific topics and during question practice.

Chapter 1

Strategic analysis

Introduction

Learning outcomes

Knowledge brought forward and syllabus links

Chapter study guidance

Learning topics

1 Strategic management

2 Organisational goals and objectives

3 The external business environment

4 nternal factors and strategic capability

5 Analysing strategic position and performance

6 Levels of strategy in an organisation

7 Current technology developments

8 ESG and sustainability

Summary

Further question practiceTechnical reference

Self-test questions

Answers to Interactive questions

Answers to Self-test questions

Introduction

Learning outcomes

- Describe and explain the strategic objectives of an entity considering the interests of stakeholders
- Analyse and evaluate, for a given scenario, the external economic, market and industry environment which may impact upon a business's performance and position
- Identify and evaluate the significance of the internal organisational and operational capabilities ina given scenario which may influence an entity's ability to achieve its chosen strategic objectives (including core competencies, existing processes, human capital and workforce flexibility)
- Analyse and evaluate an entity's current position and performance, from both a financial perspective and a non-financial perspective, using a variety of internal and external information sources
- Demonstrate how strategic analysis tools can be used in a complex scenario
- Demonstrate how business strategy and financial strategy can interrelate in a complex scenario
- Evaluate and advise upon the strategic capability of an entity
- Evaluate strategy at corporate, business unit and operational levels
- Analyse and evaluate current technology developments including those relating to big data, internet of things, digital assets, automation, intelligent systems, distributed ledger technology eg, blockchain and cryptocurrencies

Specific syllabus references for this chapter are: 1a-1i

Knowledge brought forward and syllabus links

This chapter reviews a number of analysis tools that were covered in Business Strategy & Technology at Professional Level. Detailed knowledge of these techniques will be critical at the Advanced Level where you will need to demonstrate not only your knowledge of them, but also your ability to apply them to complex scenarios.

Although the technical content in this chapter should largely be revision, its application at Advanced Level will be more complex than at previous levels. For example, based on the issues highlighted in the scenario, you will need to identify which tools or models are appropriate to use, and then apply them to the scenario to help evaluate an organisation's strategic position. However, the question requirement will not tell you which models you need to use.

You should refer to earlier materials for an in-depth analysis of any model or techniques you are not comfortable with.

At a high level, the first three chapters of this Workbook could be viewed as following the three broad stages of the rational planning model: strategic position; strategic choice; and strategic action (implementation). In this chapter, our focus is entities' objectives and analysing their strategic position, both in terms of their relationship with the external environment (opportunities and threats) and in terms of their internal resources and capabilities (strengths and weaknesses).

In the chapter Strategic choice we look at the different strategic options which entities can take to help them achieve their objectives and to achieve a sustainable competitive advantage.

Then in the chapters Strategic implementation and Strategic performance management we look at the issues entities face in implementing their strategies, and measuring how well they are performing against the objectives and targets they have set themselves. Strategy implementation is also underpinned by functional strategies, such as marketing, IS/IT and human resources strategies. We look at these strategies, respectively, in the chapters Strategic marketing and brand management, Information strategy and Human resource management. The way organisations use data and analytics to help them make decisions is also becoming an increasingly important capability, and we look at data and analytics in more detail in the chapter Data analysis.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Strategic management** Entities develop strategies to help them achieve their aims and objectives, and to fulfil stakeholders' expectations. Dealing with complex scenarios is a fact of business life. It is vital that you become familiar with how different strategic analysis tools can be used, and also that you understand the significance of financial strategy on business decisions.	**Approach** In this chapter the focus is on an entity's strategic objectives and analysing its strategic position; both in terms of its relationship with the external environment and in terms of its internal resources and capabilities. The chapter reviews a number of key strategic analysis tools which have already been covered at Professional Level. As such, much of the technical content in this chapter should largely be revision. However, it is important to appreciate that you will be required to apply the tools to more complex scenarios in the SBM&L exam than in the Business Strategy and Technology exam. Section 1 provides a brief overview of strategic management to remind you of content covered in Business Strategy and Technology syllabus. **Stop and think** Consider an organisation you are familiar with. Have they adopted a	In the examination, students may be required to advise an organisation on any of the four stages of strategic management: strategic analysis; strategic choice and evaluation; strategic implementation; or strategic control.	
		prescriptive or emergent approach to strategy?		

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Organisational goals and objectives** Organisations develop mission statements to help guide their overall activities. Goals and objectives are derived from the mission statement in order to provide an entity with more specific milestones and targets for the business strategy to follow and achieve. Ultimately, the goals and objectives should ensure that stakeholder needs are met, in both profit seeking and not-for-profit organisations.	**Approach** Section 2 discusses business goals and objectives. It is important to remember that business strategy decisions should be taken in conjunction with financial ones. An entity's objectives should also be aligned to stakeholder needs, requiring a business to regularly monitor changing stakeholder objectives. **Stop and think** How much are shareholders interested in a company's historic performance compared to its future prospects?	Exam questions may require you to assess an entity's strategic objectives in the light of key stakeholder interests. It is important to be able to conduct stakeholder analysis in the context of the exam scenario.	
3	**The external business environment** Strategies are shaped by the environmental context in which an entity operates. The external environment provides an ever changing source of opportunities and threats, requiring organisations to adapt their strategies accordingly. How far should the external environment, compared to an entity's own	**Approach** Section 3 deals with the external environment. This section includes a number of key strategic models, many of which are revision from Business Strategy and Technology. Work through the related Interactive Questions to practise applying the models to a scenario. **Stop and think**	An important part of strategic analysis is understanding the business environment in which an entity operates. Exam questions may require you to evaluate the impact of the external environment on an entity's strategic position and performance, using relevant models as a framework for your answer. **IQ2: Competitor analysis** This is a short question to recap your knowledge of	**IQ1: Opportunities and threats** This question requires you to assess opportunities and threats and to evaluate the company's ability to respond to them. As with all SBM&L & L questions, you are not required to use a particular theory to answer the requirement but may find that a model provides a better structure.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
		resources and competences, shape the entity's strategy?		the main stages in conducting a formal competitor analysis. You are also asked to apply your answer to the scenario to assess how competitor analysis would benefit the company.
4	**Internal factors and strategic capability** Internal competencies and strategic capability enable an entity to achieve competitive advantage. Organisations should review their resources, including financial, human, intangible and physical, to establish where gaps need to be filled in order to pursue their chosen business strategy.	**Approach** Section 4 looks at an entity's internal resources and capabilities. The section includes a number of key strategic models, some of which are revision from Business Strategy & Technology, so make sure you are familiar with them. **Stop and think** To what extent does the organisation you work for derive competitive advantage from their resources and competencies?	An organisation's ability to compete is partially determined by how it makes use of its resources and competences. Exam questions may therefore require you to evaluate the significance which these internal factors may have on an entity's ability to achieve its strategic objectives.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
5	**Analysing strategic position and performance** By combining internal resource analysis with external environment assessment we can understand the strategic position of a company. In turn this enables us to assess whether there is a strategic fit between the entity and the competitive environment.	**Approach** Section 5 contains a number of key models, culminating with 'SWOT analysis'. This helps to summarise an entity's strategic position by drawing together the results of internal and external analysis. Make sure you understand the models and how they can be applied to scenarios. Towards the end of section 5 ('Corporate reporting and	To formulate potential strategies for an organisation, internal and external elements can be combined into a SWOT analysis. In the exam you may therefore need to use information provided in the scenario to analyse an entity's current position and performance, from both a financial and non-financial perspective.	**IQ3: Product life cycle** This is a question tests your ability to apply the product life cycle model to a company. **IQ4: BCG matrix** This question combines application and technical knowledge, requiring you to apply the BCG matrix to a company. **IQ5: Value chain analysis**
		Management Commentary') we highlight the links between an entity's strategy and performance, and the financial information published in its financial statements. Remember, strategic decisions will ultimately have an impact on an entity's financial results as presented in its financial statements. Stop and think Is benchmarking a useful tool in a business environment that is constantly evolving due to technological change?		In this question you are required to apply the Value chain to a company in order to understand the company's current success. IQ6: Materiality of narrative information This short question covers the factors to consider when assessing the materiality of non- financial information.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
6	Levels of strategy in an organisation Successful business strategies depend largely on decisions that are taken at operational level. However, these decisions must be congruent with the overarching corporate strategy.	Approach Strategy exists at a number of levels in an organisation and it is important that the strategies at each level are aligned with each other. Section 6 acts a reminder of each of these strategy levels, which you have seen in the Business Strategy and Technology syllabus. Consider an organisation you are familiar with. Can you distinguish between corporate, business and operational strategy?	In the exam you may need to demonstrate the relationship between different levels of strategy in an organisation, for example business strategy and financial strategy.	
7		**Approach**		
	Current technology developments Although you are not expected to be an IT specialist, you are expected to be aware of the main technological developments in the business environment (eg, big data, AI, machine learning, automation). You should also appreciate the impact these could have on a business, or how a business might be able to make use of them.	Section 7 concludes the chapter by discussing a range of current technology developments. It is important to remember that SBM&L is a business exam, not an IT exam, so think about the potential impact or application of these developments in a business context, rather than focusing too much on the 'technology' for its own sake. **Stop and think** What devices do you have in your home that make use of the internet of things? What benefits or problems do they bring to you?	Technological progress is changing the way businesses compete and how customers behave. An exam question may require you to evaluate current technology developments and their potential impact on an entity or its strategy.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
8	**ESG and sustainability** Sustainability and the environment are seen as increasingly important by society and stakeholders expect organisations to consider sustainability issues.	**Approach** Note the meaning of sustainability and ESG. Appreciate the importance of these to organisations. Ensure you understand the roles that chartered accountants play in supporting sustainability solutions. Stop and think **Stop and think** Think about the businesses that you buy goods from, such as clothes or electrical gadgets. Do they have any sustainability or governance codes that are publicised in their adverts?	An exam question may require you to evaluate an entity's sustainability strategy or discuss other ESG issues.	

Once you have worked through this guidance you are ready to attempt further question practice included at the end of this chapter.

1 Strategic management

Section overview

This section reviews the 'process' of strategic management, which was covered in the Professional Level Business Strategy & Technology paper. Having a good understanding of the processes by which strategies are developed and implemented is critical at Advanced Level, and you should refer to earlier materials for a more detailed analysis of them.

1.1 What is strategy?

The question, 'What is strategy?' is a useful starting point for this Workbook, but it is a very big question indeed. There are probably also nearly as many definitions as there are companies. In their text, *Exploring Strategy*, Johnson *et al* define strategy as the '**long-term direction of an organisation**'.

There are three key elements to this definition:

The long term: strategies are typically measured over years, and for some organisations may extendto a decade or more. However, within this long-term perspective, organisations need to consider emerging activities and new developments, as well as their current, core activities.

Strategic direction: over the years, strategies follow some kind of long-term direction, based on an organisation's objectives.

Organisation: organisations involve many relationships, both internally and externally, and have many different stakeholder groups who could influence a strategy, or who may be influenced by it: employees, suppliers, customers, alliance partners, investors and regulators.

By keeping it simple, Johnson *et al* allow the definition of 'strategy' to include both deliberate, logical strategy, and more incremental or emergent patterns of strategy (which we will look at later in the chapter). Equally, the long-term direction of an organisation can include strategies based on difference and competition, but also strategies that recognise the importance of cooperation (for example, as in joint arrangements, or network structures). In this respect, strategy also includes questions about what to include within the organisation, and how to manage relationships with people, resources and activities which remain outside it.

1.2 Characteristics of strategic decisions

In addition to defining strategy, we can also identify some important **characteristics of strategic decisions**.

(a) Decisions about strategy are likely to be complex since there are likely to be a number of significant factors to take into consideration and a variety of possible outcomes to balance against one another.

(b) There is likely to be a high degree of uncertainty surrounding a strategic decision, both about the precise nature of current circumstances and about the likely consequences of any course ofaction.

(c) Strategic decisions have an extensive impact on operational decision-making; that is, decisions at lower levels in the organisation.

(d) Strategic decisions affect the organisation as a whole and require processes which cross operational and functional boundaries within it. An integrated approach is therefore required.

(e) Strategic decisions are likely to lead to change within the organisation as resource capacity is adjusted to permit new courses of action. Changes with implications for organisational culture are particularly complex and difficult to manage.

1.3 Elements of strategic management

Strategic management is concerned with taking and implementing strategic decisions. The 'strategic' perspective focuses on an organisation as a **whole**, rather than looking at individual business functions in isolation.

Strategic management involves three types of activity which are often described as phases in a sequence. The table at the end of this section (1.3) summarises some of the terminology and follows, broadly, the sequence of the three types of activity:

Analysis – analysis of current strategic position, including objective setting and the influences on an organization's strategy (external environment, internal capabilities, and the expectations of stakeholders).

Choice – formulation and evaluation of agreed strategies.

Implementation, monitoring and control – with control information feeding back into the system.

The three elements of strategic analysis, strategic choice and strategic implementation respectively provide a framework for the first three chapters of this Manual. However, this linear sequence of analysis, choice and implementation is not necessarily an accurate description of **how** strategies are actually made and implemented in all organisations.

In particular, although strategic planning addresses the long-term direction of an organisation, a strategic plan should not be set in stone. It is likely to require frequent adjustments, since circumstances may change, the competitive environment will evolve and some events simply cannot be foreseen. Moreover, strategic planning is not a process which involves a one-off implementation, but rather one that goes hand in hand with continuous improvement – seeking to improve all the functions of a business in an ongoing manner.

It is also important that the overall sequence of strategic management activities does not obscure the reality that different aspects of strategic management are likely to be important in different contexts. For example, strategic management in public sector organisations is likely to be very different to that in a multinational listed company.

Nonetheless, the three types of activity (analysis, choice and implementation) provide a useful starting point from which to begin our study of strategic business management.

Element of strategic management	What it is	Where it fits in the strategic management process
		ANALYSIS
Mission	The organisation's fundamental purpose insociety, in terms of how it satisfies its stakeholders.	Part of the analysis phase. These elements set the direction of the organisationand what it does.
Vision	Desired future state for the industry or organisation.	
Strategic intent	Similar to vision, but focused on the organisation's future state and related to the consideration of resources needed to achieve it.	
Goals	Desired achievements, implying action is needed to reach them.	There may be gaps between desired corporate goals and objectives and the outcomes that are likely to be achieved.
Aim	A goal which is not quantified.	
Objective	A quantified goal.	
External environment	Everything outside the boundaries of the organisation. • Macro environment: general political, economic, social, ecological/environmental and technological factors affecting an industry. • Task environment: direct impact on the organisation.	A review of the external environment and internal capabilities is part of the analysis process. These might be combined in a corporate appraisal or SWOT analysis.
Competences	Resources, processes and skills; a core competence is fundamental to the success ofthe organisation.	
		CHOICE AND EVALUA-TION
Strategy	Long-term plan that integrates an organisa-tion's policies, goals and action sequences into an agreed whole.	Strategic options are generated.
Evalu-ation criteria	This suggests that organisations have to choose which strategies to adopt. Evaluation criteria are decision rules that enable organ-isations to make such a choice. Often based around suitability, feasibility and acceptabil-ity.	Strategies are eval-uated before they are implemented in practice (ie, before anybody really knows what the outcome will be). We willlook at the evaluation of strategic options in more detail in the chapter Strategic choice.
		IMPLEMENTATION

Element of strategic management	What it is	Where it fits in the strategic management process
Tactics	Deployment of resources in an agreed strategy.	Tactical and operational strategies need to be aligned to, and support, the overall corporate strategy. The strategy may result in the need to develop or change the organisation's structure.
Strategic architecture	Combination of resources, processes and competences to put the strategy into effect. This,in turn, will need to be translated into specific actions and tasks that link broad direction to specific operational issues.	
Strategic business	This is part of an organisation for which there is a distinct external market for goods and services.	
		CONTROL
Control	Obtaining feedback and monitoring actual performance in light of strategies and objectives. Strategic control has two parts: • Monitoring the effectiveness of strategies and actions; • Modifying either the strategy or the actions if adjustments are required.	This activity provides feedback information for the analysis activity. The nature of this feedback can be questioned.

1.4 Prescriptive vs emergent approaches to strategy

The structured 'process' of strategic management that we have illustrated in section 1.3 is characteristic of the formal, **rational model approach** to strategic planning.

However, there is a marked contrast between this prescriptive approach to strategic planning and the **emergent approach**, which views strategy as continuously and incrementally evolving from patterns of behaviour within an organisation. Managers have the power to develop and adapt strategies in response to changes in circumstances or as new opportunities and threats arise.

You should already be familiar with the rational model and the emergent approach to strategy from your studies of Business Strategy & Technology.

In addition to formal and emergent approaches to strategy, a third potential approach to business planning is **freewheeling opportunism**. This approach suggests that firms should not bother with formal plans at all but should simply exploit opportunities as they arise. Potential advantages of this approach are: firms can adapt to changes more quickly and easily; and it encourages a more flexible, creative attitude. However, the lack of formal planning means there is no coordinating framework for an organisation, so it ends up reacting to circumstances, rather than developing its own strategies proactively.

2 Organisational goals and objectives

Section overview

- Goals and objectives derive from an organisation's mission and support it.
- By definition, stakeholders have an interest in an organisation and its strategy. Therefore, an organisation needs to bear the interests of its stakeholders (and possible conflicts between them)in mind when it develops its mission and objectives.

2.1 Brought forward knowledge

One of the learning outcomes of the Business Strategy and Technology paper at Professional Level isthat candidates should be able to 'Evaluate a business's purpose in terms of its stated mission, objectives and critical success factors.' Therefore, candidates studying at Advanced Level are assumed to already have this ability.

Organisational goals

Profit-seeking organisations: The underlying organisational purpose is to deliver economic value to their owners, ie, to increase shareholder wealth. Goals such as satisfying customers, building marketshare, cutting costs and demonstrating corporate social responsibility are secondary objectives that enable economic value to be delivered.

Not-for-profit organisations: The primary goals of not-for-profit organisations vary enormously, and include meeting members' needs, contributing to social wellbeing, and pressing for political and social change. Secondary goals will include the economic goal of not going bankrupt and, in some cases, generating a financial surplus to invest in research or give to the needy. Often the goals of not-for-profit organisations will reflect the need to maximise the benefit derived from limited resources, such as funds. Their objectives may be more heavily influenced by external stakeholders such as the Government.

2.2 Mission and values

The mission statement of an organisation describes its basic purpose, and what it is trying to achieve.The following are the mission statements for some well-known companies:

Coca-Cola: "To refresh the world … To inspire moments of optimism and happiness … To create value and make a difference."

Google: "To organize the world's information and make it universally accessible and useful."

Amazon: "We strive to offer our customers the lowest possible prices, the best available selection,and the utmost convenience."

Starbucks: "Our mission: to inspire and nurture the human spirit – one person, one cup and one neighbourhood at a time."

2.3 Goals, objectives and targets

An understanding of an organisation's mission is invaluable for setting and controlling the overall **functioning and progress** of that organisation.

However, mission statements themselves are open-ended and are not stated in quantifiable terms, such as profits and revenues. Equally, they are not time bound.

Therefore, mission statements can only be seen as a general indicator of organisational strategy. In order to start implementing the strategy and managing performance, an organisation needs to develop some more **specific** and **measurable objectives** and **targets**.

Most people's work is defined in terms of specific and immediate **things to be achieved**. If these things are related in some way to the wider purpose of the organisation, it will help the organisation to function more effectively.

Loosely speaking, these 'things to be achieved' are the goals, objectives and targets of the various departments, functions and individuals that make up the organisation. In effective organisations, **goal congruence** will be achieved, such that these disparate goals, objectives and targets will be **consistent** with one another and will **operate together** to support progress with the overall mission.

However, while mission statements are high-level, open-ended statements about a firm's purpose or strategy, **strategic objectives** translate the mission into more **specific milestones and targets** for the business strategy to follow and achieve.

2.3.1 A hierarchy of objectives

A simple model of the relationship between the various goals, objectives and targets is a **pyramid** analogous to the traditional organisational hierarchy. At the top is the **overall mission**; this is supported by a **small number of wide-ranging goals**, which may correspond to overall departmental or functional responsibilities. Each of these goals is supported, in turn, by **more detailed**, **subordinate goals** that correspond, perhaps, to the responsibilities of the senior managers in the function concerned. This pattern is cascaded downwards until we reach the work targets of individualmembers of the organisation.

As we work our way down this pyramid of goals, we will find that they typically become **more detailed** and relate to **shorter timeframes**. So, the mission might be very general and specify no timescale at all, but an individual worker is likely to have very specific things to achieve every day, oreven every few minutes.

Note that this description is very basic and that the structure of objectives in a modern organisationmay be much more complex than this, with the pursuit of some goals involving input from several functions. Also, some goals may be defined in very general terms, so as not to stifle innovation, cooperation and informal ways of doing things.

An important feature of any structure of goals is that there should be **goal congruence**; that is to say,goals that are related to one another should be **mutually supportive**. This is because goals and objectives drive actions, so if goals are not congruent, then the actions of one area of the business will end up conflicting with those of another area of the business.

Goals can be related in several ways:

- hierarchically, as in the pyramid structure outlined above
- functionally, as when colleagues collaborate on a project
- logistically, as when resources must be shared or used in sequence
- in wider organisational senses, as when senior executives make decisions about their operational priorities

A good example of the last category is the tension between short- and long-term priorities in such matters as the need to contain costs while at the same time increasing productivity by investing in new machinery, or trying to increase market share through marketing activity.

1.3.2 Management by objectives

The contrast between objectives and mission statements can be highlighted by the fact that objectives should be 'SMART'.

Specific **M**easurable **A**chievable **R**elevant **T**ime-related

Relevant is sometimes replaced with **realistic**; but 'realistic' and 'achievable' could be seen as meaning similar things. An objective is relevant if it is appropriate to an organisation's mission.

There are other variants: **achievable** may be replaced with **attainable**, which has an almost identical meaning. Achievable is also sometimes replaced with **agreed**, denoting that objectives should be agreed with those responsible for achieving them. However, note that whichever version you prefer,

a SMART objective corresponds very closely with our description of the way the word **target** is commonly used.

(a) **Specific:** An objective must be a clear statement, and must be easy to understand. Whereas mission statements tend to be vague, objectives must be specific.

(b) **Measurable**: Again, in contrast to mission statements, objectives must be measurable so that performance against the objectives can be assessed. Measuring performance against objectivesis a key element of control in organisations.

(c) **Achievable:** If the objectives set are not achievable, people will not bother trying to achieve them, so there is little point setting them.

(d) **Relevant:** An objective is relevant if it is appropriate to an organisation's mission, and will help itfulfil that mission. (This reiterates the link between an organisation's mission and its objectives.)

(e) **Time-related:** Whereas mission statements tend to be open-ended, an organisation needs to define a specific time period in which objectives should be achieved. Again, this is very important for enabling management to judge whether or not the objective has been achieved.For example, if an organisation has an objective such as 'To increase sales revenue by 5%', howwill managers know the time period over which this sales increase is expected to be achieved?However, if the objective is 'To increase sales revenue by 5% per year', the time frame is clearly identified.

2.3.3 Primary and secondary objectives

Some objectives are more important than others. In the hierarchy of objectives, there is a **primarycorporate objective** and other **secondary objectives** which should combine to ensure the achievement of the overall corporate objective.

For example, if a company sets itself an objective of growth in profits, as its primary aim, it will then have to develop strategies by which this primary objective can be achieved. An objective must then be set for each individual strategy. Secondary objectives might then be concerned with sales growth, continual technological innovation, customer service, product quality, efficient resource managementor reducing the company's reliance on debt capital.

Corporate objectives should relate to the business as a whole and can be both financial and **non-**financial:

• profitability	• customer satisfaction
• market share	• the quality of the firm's products
• growth	• human resources
• cash flow	• new product development
• asset base	• social responsibility

Equally, when setting corporate objectives, it is important that an organisation considers the needs ofall its **stakeholders**, to try to ensure that these are met wherever possible.

Professional skills focus: Applying judgement

In the exam you are expected to be able to assess different stakeholder perspectives when evaluating options. It is therefore important to remember that maximising shareholder wealth is not the only key objective of profit seeking organisations. Whilst meeting shareholders needs will always be one of the main objectives, managers will also seek to balance profits against other stakeholder needs.

Long-term and short-term objectives

It is also important to remember that objectives may be long term or short term. A company that is suffering from a recession in its core industries and making losses in the short term might continue to have a long-term primary objective of achieving a growth in profits but, in the short term, its primary objective might be survival.

Trade-offs between long-term and short-term objectives

Just as there may have to be a trade-off between different objectives, so too might there be a needto make trade-offs between short-term objectives and long-term objectives. This is referred to as short/long (S/L) trade-off.

Decisions that involve the **sacrifice of longer-term objectives** include the following:

(a) Postponing or abandoning capital expenditure projects (or marketing expenditure) that would eventually contribute to growth and profits, in order to protect short-term cash flow and profits.

(b) Cutting research and development (R&D) expenditure to save operating costs, thereby reducing the prospects for future product development. In this respect, cost leadership could be seen as ashort-term strategy, because it is looking to minimise operating costs rather than develop new products or capabilities as a basis for competitive advantage in the future.

(c) Reducing quality control to save operating costs (but also adversely affecting reputation and goodwill).

(d) Reducing the level of customer service to save operating costs (but sacrificing goodwill).

(e) Cutting training costs or recruitment (so the company might be faced with skills shortages).

This relationship between short-term and longer-term objectives also has significant implications for the way organisations measure performance and the performance measures they use to do so.

The phrase '**What gets measured, gets done**' is an important one in relation to performance measurement, and its implications are key here as well. For example, if return on investment (ROI) is one of a company's key financial performance measures, then its managers will have a keen interest in maximising the company's ROI. As a result, however, this choice of performance measure may also encourage the managers to focus on short-term, rather than longer-term, performance. For example, they may decide to dispose of some machinery that is not currently in use, thereby reducing depreciation charges and asset values, and in doing so, immediately increasing ROI. However, the potential flaw in such a short-term plan could be exposed if the managers later realise they need to use the machinery again and so have to buy some new equipment (at a higher cost than the equipment they had previously disposed of).

2.3.4 Financial objectives

For commercial businesses, the primary objective is making a **return**; maximising the wealth of their ordinary shareholders.

(a) A satisfactory return for a company must be sufficient to reward shareholders adequately in the long run for the risks they take. The reward will take the form of profits, which can lead to dividends or to increases in the market value of the shares.

(b) The size of return considered adequate for ordinary shareholders will vary according to the risk involved.

There are different ways of expressing a financial objective in quantitative terms. Financial objectives would usually include the following:

- profitability
- ROI or return on capital employed (ROCE)
- share price, earnings per share, dividends
- growth

We will look in more detail at how organisations measure their performance later in this manual.

However, as with business objectives, it is important to recognise that financial objectives may be short term as well as long term. Maximising shareholder value is a long-term objective. However, short-term objectives, such as working capital management to ensure a business has sufficient cash to satisfy its day-to-day requirements, are equally important for the ongoing success of the business.

2.3.5 Business strategy and financial strategy

Highlighting the importance of financial and non-financial objectives also reminds us of the importance of considering how business and financial strategy interrelate.

Although the primary focus of the early chapters of this Workbook is on business strategy, it is important to remember that business strategy decisions must be taken in conjunction with financialones. For example, does a company have sufficient funds to support a proposed business strategy, or how can it raise the additional funds needed to support that business strategy?

Competitive strategy, financial strategy and investment strategy

In essence, there are actually three interrelated elements to a business strategy: competitive strategy, financial strategy and investment strategy.

These three elements must work together for the strategy of a firm to be successful. We can display these crucial elements in the following diagram.

Figure 1.1: Elements of business strategy

The three types of strategy are described in the following table.

Strategy	Comment
Competitive strategy	This determines how and where the firm competes in the market (customers, products) in order to achieve a sustainable position, and there by generate profits and cash flows. The results of competitive strategy determine the level of profits and cash flow available for financial and investment strategies.
Financial strategy	This is concerned with the way companies raise and deploy their funds. As such it looks at how companies build and maintain relationships with shareholders and other providers of finance. It is also concerned with how companies use the cash and earnings generated by their competitive strategy, and specifically how financial resources are invested for the future of the company. In her text *Corporate Financial Strategy*, Ruth Bender argues that financial strategy has two key components: (a) raising the funds needed by an organisation, in the most appropriate manner (b) managing the ways those funds are used within the organisation
Investment strategy	This aims to provide the resources (such as non-current assets, workingcapital, training, marketing, branding, R&D expenditure) for the competitive strategy to be carried out.

The life cycle model

The product (or industry) life cycle model highlights the importance of integrating business and financial strategies.

The life cycle model illustrates that during the introduction and growth phases, a company's cash flow is likely to be negative, due to the investment in assets and working capital required to support growth. However, early-stage businesses are also risky, because there are many unknowns about their performance.

It would be unwise then to attempt to finance the business with debt, because this would increase their financial risk (gearing) and would lead to outflows of cash (interest) from companies that are already cash negative. Thus, companies in the early stages of their life cycle should seek equity funding as far as possible.

However, companies in the early stages of their life cycle often pay no dividends to their investors. As has already been noted, these companies are likely to be cash negative but, perhaps more importantly, they are likely to have exciting growth prospects. Therefore, they are better able to earn value for the shareholders by reinvesting any profits back into the company rather than paying money out by way of dividend.

Delivering value for shareholders

We can also highlight the importance of the interrelationship between business and financial strategies by reference to the underlying financial objective of companies – which is delivering valuefor their shareholders.

As we will see in the chapter Business and securities valuation, one of the ways a company can be valued is by discounting its expected future cash flows at an appropriate cost of capital. As such, value arises from creating competitive advantage through successful business strategy, in combination with a successful financial strategy, to increase those cash flows and reduce the cost ofcapital.

Value drivers

Definitions

Value drivers: In general terms, value drivers are crucial organisational capabilities that provide acompetitive advantage to an organisation.

Rappaport's value drivers: In relation to the shareholder value approach (as set out by Rappaport) – the value of a company is dependent on seven drivers of value. In effect, the drivers enable management to estimate the value of an investment by discounting forecast cash flows by the cost ofcapital.

As we noted above, a company's overall aim is to create shareholder value. This is done by selecting a business strategy which it believes will be successful, with that strategy being derived from an analysis of external forces and of the company's internal resources and competences.

However, that strategy also needs to link to those factors that drive value in the business. Rappaport identified seven value drivers:

(a) increase sales growth rate
(b) increase operating profit margin
(c) reduce cash tax rate
(d) reduce incremental investment in capital expenditure
(e) reduce investment in working capital
(f) increase time period of competitive advantage
(g) reduce cost of capital

The first five drivers can be used to prepare cash flow forecasts for a suitable period. The length of this period should be defined according to the likely period of a company's competitive advantage (driver (f)). Discounting these cash flows at the cost of capital (driver (g)) leads to the value of the business's operations.

Identifying the value drivers in a company is also important when deciding what performance measures are the most meaningful to measure. One way to ensure that a company uses meaningful performance metrics is to link those metrics to value drivers. For example, a metric of 'new product sales' could be useful to measure how well a company is achieving sales growth.

In this respect, the drivers should not all be treated equally. Different drivers will be more important than others in different business. For example, for a hotel business, with a high fixed cost base, the most important driver is sales, meaning that occupancy rates are a key performance measure for hotels. By contrast, for a bank lending to corporate customers, profits are driven by the margin between the rate at which the bank borrows and that at which it lends. That margin is usually slim, so for the bank, more value will be created by improving interest margins and reducing operating costs than by increasing the volume of business.

(We will look at performance measures and performance management in more detail in the chapter Strategic performance management.)

Value creation does not occur and costs do not arise evenly across an organisation, so managers should have a firm grasp of the key cost and value drivers affecting their operations. Some of these may be located outside the organisation, elsewhere in the value network, so the ability to influence suppliers and distributors may be crucial to success.

More generally, the choice of **generic strategy** interacts with cost and value: strict control of cost is obviously fundamental to cost leadership, while differentiation will inevitably have cost implications associated with such matters as brand communications, product quality and customer service.

Moreover, the structure of costs and value creation is likely to **change over time** as, for example, illustrated by the cost and profit aspects of the **product life cycle**.

2.3.6 Financial management decisions

In seeking to achieve the financial objectives of an organisation, a finance manager has to make decisions on three interrelated topics:

(a) Investment

(b) Financing

(c) Dividends

Investment decisions

The financial manager will need to **identify** investment opportunities, **evaluate** them and decide on the **optimum allocation of scarce funds** available between investments.

Investment decisions may be focused on the undertaking of new **projects** within the existing business, the **takeover** of, or **merger** with, another company or the **selling off** of a part of the business.

Managers have to take decisions in the light of strategic considerations such as whether the business intends to **expand internally** (through investment in existing operations) or **externally** (through expansion).

Financing decisions

Financing decisions include those concerned with both the long term (**capital structure**) and the short term (**working capital management**).

The financial manager will need to determine the **source, cost** and effect on **risk** of the possible sources of long-term finance. A balance between **profitability** and **liquidity** (the ready availability offunds if required) must be taken into account when deciding on the optimal level of short-term finance.

Interaction of financing with investment and dividend decisions

When taking financial decisions, managers will have to fulfil the **requirements of the providers of** finance, otherwise finance may not be made available. This may be particularly difficult in the case of equity shareholders, since dividends are paid at the company's discretion. However, if equity shareholders do not receive the dividends they want, they are likely to sell their shares, in which case the share price will fall and the company will have more difficulty raising funds from share issues in future.

Although there may be risks in obtaining extra finance, the long-term risks to the business of **failing to invest** may be even greater and managers will have to balance these risks. Investment may have direct consequences for decisions involving the **management of** finance; extra working capital may be required if investments are made and sales expand as a consequence. Managers must be sensitive to this and ensure that a balance is maintained between receivables and inventory, and cash.

A further issue managers will need to consider is the **matching** of the **characteristics** of investment and finance. **Time** is a critical aspect; an investment which earns returns in the long term should be matched with finance that requires repayment in the long term.

Another aspect is the financing **of international investments**. A company which expects to receive a substantial amount of income in a foreign currency will be concerned that this currency may weaken. It can hedge against this possibility by borrowing in the foreign currency and using the foreign receipts to repay the loan. However, it may be better to obtain finance on the international markets.

Dividend decisions

Dividend decisions may affect the view that shareholders have of the long-term prospects of the company, and thus the **market value of the shares**.

Interaction of dividend with investment and financing decisions

The amount of surplus cash paid out as **dividends** will have a direct impact on finance available for **investment**. Managers have a difficult decision here: how much do they pay out to shareholders each year to keep them happy, and what level of funds do they retain in the business to invest in projects that will yield long-term income? In addition, funds available from retained profits may be needed if debt finance is likely to be unavailable, or if taking on more debt would expose the company to undesirable risks.

2.4 Shareholder value and value-based management

In our discussion of value drivers in section 2.3.5, we noted that a company's overall aim is to createvalue for its shareholders.

Shareholders want managers to maximise the value of their investment in a company. Accordingly,the performance measure systems used in the company need to assess how well managers are carrying out this duty.

Many of the performance measures used to assess performance are based on information from a company's published financial statements. However, these could give conflicting messages, or provide misleading information about the company's underlying performance. For example, the figure for earnings per share could be reduced by capital-building investments in R&D and in marketing.

What is more, the financial statements themselves do not provide a clear picture of whether or not **shareholder value is being created**. The statement of comprehensive income, for example, reports the **quantity** but not the **quality** of earnings, and it does not distinguish between earnings derived from operating assets compared to earnings derived from non-operating assets. Moreover, it ignores the cost of equity financing, and only takes into account the costs of debt financing, thereby penalising organisations which choose a mix of debt and equity finance.

The statement of cash flows (cashflow statement) may also fail to provide appropriate information. Large positive cash flows are possible when organisations underspend on maintenance, or reduce capital investment in order to increase short-term profits at the expense of long-term success. On the other hand, an organisation can have large negative cash flows for several years and still be profitable; for example, if it has recently invested in a new factory, or in acquiring new plant and machinery.

A shareholder value approach to performance measurement involves a shift in focus away from short-term profits to a longer-term view of value creation, the motivation being that this will help the business stay ahead in an increasingly competitive world.

Individual shareholders have different definitions of shareholder value as different shareholders value different aspects of performance:

- financial returns in the short term
- short-term capital gains
- long-term returns or capital gains
- stability and security
- achievements in products produced or services provided
- ethical standards

(It is unlikely that the last two alone make a company valuable to an investor.)

These factors, and others, will all be reflected in a company's share price, but stock markets are notoriously fickle and tend to have a short-term outlook.

Perhaps more important, though, Johnson, Scholes and Whittington suggest that applying shareholder value analysis requires a whole new approach to performance management: **value- based management** (VBM).

Central to VBM is the identification of the cash generators of the business, or **value drivers**, resembling Rappaport's idea of value drivers. These drivers will be both external and internal. For example, competitive rivalry is a major external value driver because of its direct impact on margins.

2.5 Value-based management

Definition

Value-based management: A management process which links strategy, management and operational processes with the aim of creating shareholder value.

VBM starts from the premise that the value of a company is measured by its **discounted future cash** flows (not profits). Value is created only when companies invest capital at returns which exceed the cost of that capital.

Consequently, VBM seeks to use the idea of value creation to align strategic, operational and management processes to focus management decision-making on what activities create value for the shareholders.

However, VBM focuses on a company's ability to generate future cash flows, rather than looking at the profits the company has earned or will earn in the short-term future.

Management decisions designed to generate higher profits do not necessarily create value for shareholders. Often, companies are under pressure to meet short-term profit targets, and managers are prepared to sacrifice long-term value in order to achieve these short-term targets. For example, management might avoid initiating a project with a positive net present value if that project leads to their organisation falling short of expected profit targets in the current period.

Consequently, VBM argues that profit-based performance measures may obscure the true state of a business. By contrast, VBM seeks to ensure that analytical techniques and management processes are all aligned to help an organisation maximise its value. VBM does this by focusing management decision-making on the key **drivers of value**, and making management more accountable for growing an organisation's intrinsic value.

Whereas profit-based performance measures look at what has happened in the past, VBM seeks to maximise returns on new investments. What matters to the shareholders of a company is that they earn an acceptable return on their capital. As well as being interested in how a company has performed in the past, they are also interested in how it is likely to perform in the future.

2.5.1 Creating shareholder value

Although it is easy to identify the logic that companies ought to be managed for shareholder value, it is much harder to specify **how** this can be achieved. For example, a strategy to increase market share may not actually increase shareholder value.

Good quality information is essential in a VBM system, so that management can identify where value is being created – or destroyed – in a business. For example, continuing the previous example, there is no value in increasing market share if the market in question is not profitable.

An organisation will need to identify its value drivers, and then put strategies in place for each of them. When identifying its value drivers, an organisation may also find that its organisational structure needs reorganising, to ensure its structure is aligned with the processes which create value.

2.5.2 Measurement

Introducing VBM will require a change in the performance metrics used in a company. Instead of focusing solely on historical returns, companies also need to look at more forward-looking contributions to value: for example, growth and business sustainability. The performance measures used in VBM are often non-financial.

2.5.3 Managing value

In today's companies, the intellectual capital provided by employees plays a key role in generating value. VBM attempts to align the interests of the employees who generate value and the shareholders they create value for. Otherwise VBM could drive a wedge between those who deliver economic performance (employees) and those who harvest its benefits (shareholders). In practice, companies try to improve the alignment between employees and shareholders by using remuneration structures which include some form of share-based payments.

Successfully implementing VBM will also involve cultural change in an organisation. The employees in the organisation will need to commit to creating shareholder value. Value is created throughout the company as a whole, not just by senior management, so all employees need to appreciate how their roles add value.

Nonetheless, visible leadership and strong commitment from senior management will be essential for a shift to VBM to be successful.

However, as with any change programme, implementing VBM could be expensive and potentially disruptive, particularly if extensive restructuring is required.

2.5.4 Implications of VBM

Adopting a value-based approach to management is likely to have wide-ranging implications for a company.

Culture: Shareholder value must be accepted as the organisation's purpose. This may have greatest impact at the **strategic apex**, where directors may have had different ideas on this subject. However, the importance of creating shareholder value must be emphasised in all parts of the business.

Nevertheless, it is crucial that management do not overlook underlying business processes in the quest for value-based metrics. Core business processes (for example, quality management, innovation and customer service) should still be monitored alongside value-based metrics.

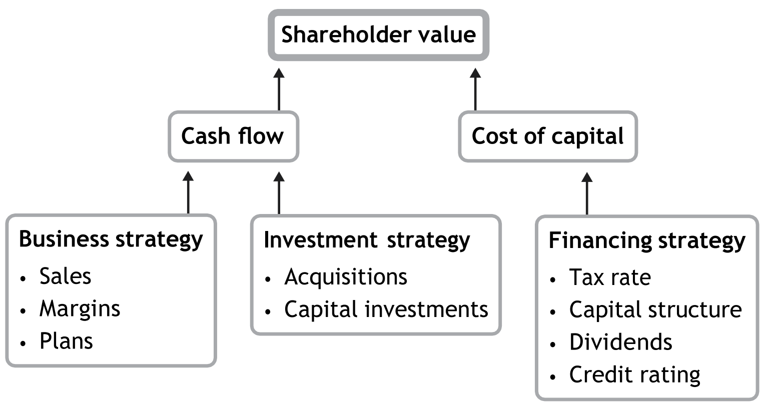
Relations with the market: Shareholder value should be reflected in share price. The company's senior managers must **communicate effectively with the market** so that their value-creating policies are incorporated into the share price. However, they must not be tempted to manipulate the market. This may be a difficult area to manage, as executive rewards should reflect the share price. One way in which management can communicate performance to the market is through key performance indicators. These metrics should then, in turn, form the basis of the performance targets for divisional managers to achieve.

Strategic choices: The maximisation of shareholder value must be the objective underlying all strategic choices. This will affect such matters as **resource allocation** and HR policies, and will have particular relevance to the evaluation of expensive projects such as **acquisitions** and **major new product development**.

2.5.5 Business strategy and shareholder value

The following diagram summarises how strategy drives a business towards increased shareholder value, which is the primary strategic objective for most businesses.

Figure 1.2: Strategy and shareholder value



2.6 Stakeholders and objectives

Although we have spent the previous sections highlighting the importance of creating value for shareholders, and although shareholders are likely to be an important stakeholder group for most organisations, there are also a number of stakeholders whose interests need to be considered when a company plans its strategy and sets its objectives.

Definition

Stakeholders: Groups or persons with an interest in the strategy of an organisation, and what the organisation does.

2.6.1 Stakeholder interests

Organisations have a variety of stakeholders, each of which is likely to have its own interests:

(a) **Managers and employees** – typically interested in job security, career progression, salaries andbenefits, job satisfaction

(b) **Shareholders** – interested in maximising their wealth from holding shares (as measured by profitability, P/E ratios, market capitalisation, dividends and yield)

(c) **Lenders** – interested in the security of loans given, and adherence to loan agreements

(d) **Suppliers** – achieving profitable sales, payment for goods, developing long-term relationships

(e) **Customers** – receiving goods and services as purchased, achieving value for money in their purchases

(f) **Government and regulatory agencies** – jobs created, tax revenues, compliance with laws andregulations, investment and infrastructure, national competitiveness

(g) **Environmental and social bodies, and other non-governmental organisations** – primarily interested in social responsibility

(h) **Industry associations and trades unions** – interested in members' rights

(i) **Local communities** – interested in local jobs on one hand, but also environmental impact (noise, pollution etc) on the other

When determining its strategy, an organisation needs to consider how well that strategy fits in with the interests of different stakeholders. The organisation should also consider how stakeholders could respond to strategies which do not uphold their interests; for example: shareholders could raise concerns at the company's AGM, or even sell their shares; banks could refuse to lend money to a company or could demand higher interest charges; customers may choose to purchase goods and services from a competitor; and employees could resign or take part in industrial action (supported by trade unions).

Focus of stakeholders' interests

When considering stakeholders, organisations need to be aware of two important differences in stakeholder focus:

Economic or social focus

Some stakeholders' interests are primarily economic (for example, shareholders are interested in profitability; employees, in salaries) while other stakeholders will care more about social issues (such as social responsibility and environmental protection).

Local or national focus

Often, the interests of local stakeholder groups may be different from national (or international) groups. Think, for example, of the debate about whether to build a third runway at Heathrow Airport. Local residents were concerned about increased noise, pollution and traffic, but at a national level politicians highlighted the economic benefits of expansion.

2.6.2 Stakeholder management

Conflict is likely between stakeholder groups due to the divergence of their interests. This is further complicated when individuals are members of more than one stakeholder group and when members of the same stakeholder group do not share the same principal interest. For example, if some members of a workforce are also shareholders while others are not, the interests of the two groups may be different.

Different stakeholder groups are likely to have a range of responses to possible business strategies. When an organisation is evaluating a strategy, it should consider what impact that strategy will have on key stakeholder groups.

In this respect, Mendelow's matrix is a useful tool for helping an organisation establish its priorities and manage stakeholder expectations, by looking at the relative levels of interest and power that different stakeholder groups have in relation to the organisation or its strategy.

Figure 1.3: Mendelow's matrix

	Low	**High**
Low	A	B
High	C	D

(a) Stakeholders in this quadrant of Mendelow's matrix have low interest and low power, therefore only minimal effort should be given to meeting their needs.

(b) Stakeholders in this quadrant have important views, but little ability to influence strategy, therefore they should be kept informed only.

(c) An organisation should treat stakeholders in this quadrant with care because while they are often passive, they are capable of moving to segment D. Therefore, it is important to keep them satisfied.

(d) These are key players (for example, a major customer), so the strategy must be acceptable to them at least. Equally, powerful stakeholder groups must have confidence in the management team of an organisation. Regular communication with the stakeholder groups can be a good way to help achieve this.

3 The external business environment

Section overview

- Organisations are open systems: they operate within a complex environment, which presents them with opportunities and threats.
- This 'environment' can be analysed at different levels: the macro environment (PESTEL factors); the industry environment (Porter's five forces); and competitors or markets.
- Understanding the nature of the business environment and any changes taking places within it is,therefore, an important part of strategic planning.

3.1 The external environment

The business environment includes the wider political, economic, social, technological, environmental (green) and legal context in which an organisation operates, as well as the more immediate pressures of the business competition it faces. The business environment is both **complex**and subject to constant **change**, to the extent that it is unlikely that a business can ever have a complete understanding of its environment.

However, by analysing the key environmental variables that might affect it, an organisation can identify the **opportunities** which are available to it and the **threats** that it is facing.

3.1.1 Environmental analysis

The following table illustrating **environmental analysis is** adapted from Lynch's text, *Strategic Management*. It sets out the various **stages** in environmental analysis and the **techniques** to be employed. The sequence of the model fits with the sequence of the rational model of strategic business management.

	Stage	Techniques
(a)	Explore basic characteristics of the environment.	• market definition and size • market growth • market share
(b)	Consider the degree of turbulence in the environment.	General considerations: • change: fast or slow? • repetitive or surprising future • predictability (rate of change; visibility of change) • complex or simple influences on the organisation?
(c)	Factors affecting many organisations.	PESTEL analysis and scenario planning.
(d)	Analysis of market growth.	Industry life cycle.
(e)	Factors specific to the industry; what delivers success?	Analyse key factors for success (critical success factors).
(f)	Factors specific to the competitive balance of power in the industry.	Porter's five forces analysis.
(g)	Factors specific to cooperation in the industry.	Analysis of network relationships and cooperation (referred to as 'Four Links' analysis): • government links and networks • informal cooperative links and networks • formal cooperative links (eg, joint ventures) • complementors (eg, computer hardware needs software to go with it to provide value for customers)
(h)	Factors specific to immediate competitors.	Competitor analysis and product portfolio analysis.
(i)	Customer analysis.	Market and segmentation studies (see the chapter Strategic marketing and brand management)

3.2 Environmental and market analysis tools

3.2.1 PESTEL analysis

The PESTEL framework is used to analyse the macro environment into the following segments:

- Political
- Economic
- Sociocultural
- Technological
- Environmental protection
- Legal

This analysis is a useful checklist for general environmental factors, although in the real world they are obviously all interlinked. Any single environmental development – for example, the UK's decision to leave the EU ('Brexit') – could have implications for a number of different PESTEL segments. In particular, political, social and economic affairs tend to be closely intertwined. Given that case studiesat this level are likely to be quite involved, you should not waste time trying to impose unnecessary divisions on any environmental analysis – the important thing is **substance**: what impact could the opportunities or threats presented by the external environment have on an organisation? (For example, in relation to Brexit, what impact might the decision to leave the EU have on the UK's economy, or its attractiveness as a business location?)

Interactive question 1: Opportunities and threats

STF Company provides domestic transport services by air and sea between a country's mainland and a group of islands about 50 kilometres offshore. The company operates two ships: one of these transports freight only, and the other transports passengers and freight. This ship has a capacity of up to 250 passengers. The islands are a popular holiday destination, and the passenger service is well used, particularly by tourists in the holiday season. STF is the only provider of sea transport to the islands for passengers, although wealthy tourists visit in their private boats.

Each ship normally makes a return trip between the mainland and the islands each day. The only exceptions are in the off-peak season when the ships are sometimes taken out of service for repairs and refitting and also during bad weather when the seas are rough and it is considered unsafe to sail.

STF also operates a number of aircraft between the mainland and the islands. Unlike its sea service, its air service is not a monopoly and other airlines operate a competing service.

The main industries on the islands are tourism and agriculture. The main agricultural business is the cultivation of fruit, which is sold to retailers and exporters on the mainland. Most of this produce is transported from the islands to the mainland in STF's ships.

Most islanders are employed in businesses linked to the tourist industry, such as hotel accommodation, catering, retail services and boat hire. However, the tourist season currently lasts for only seven months in each year. Even so, it has been rumoured that a global company in the tourism business is considering whether to establish operations in the islands, and would probably introduce flights direct from other countries to the main airport on the islands.

STF has a good reputation for reliability, safety and passenger care. However, it has been increasing the prices of travel by ship for passengers, although the cost of air travel to and from the islands remains higher.

The increase in prices was prompted by narrowing profit margins in the sea services (freight and passenger). Business customers have so far successfully resisted an increase in freight charges. The fruit business on the islands is continuing to grow at a fast rate and it is expected that soon, at some times of the year, one boat will be insufficient to transport all the fruit production from the islands to the mainland.

The company has mooring rights on the mainland and the islands for its ships. These are negotiated with the local government authorities for a period of five years, and these rights are due for renegotiation next year.

In the past year, two hotel complexes have been opened on two of the islands, increasing the amount of tourists to the islands. The additional passenger traffic has been accommodated by STF's ships and by an increase in air services, but the new hotel complexes apparently have plans for further expansion. Another developer has just been granted permission by the Government to build a large new holiday complex on one of the uninhabited islands.

The new complex will accommodate up to 500 customers constantly throughout the year, and the average stay is expected to be for between one and two weeks. This complex will include sailing and sports facilities and also two golf courses. Most of the staff needed to operate the complex will be recruited from the mainland and the islands, and about 400 jobs will be created. This island will not be served by its own airport, and people visiting the island will have to go by sea, either directly from the mainland or from the main island.

The developers of the complex have announced that they are considering the negotiation of a 10-year agreement with a transport company for the exclusive rights to transport their customers from the mainland to the island complex.

STF has been very profitable, but the owners have been taking out most of the profits as dividends each year, and the company has only limited capital.

Requirement

Assess the opportunities and threats in STF's external environment and evaluate its ability to respond to them.

See **Answer** at the end of this chapter.

3.2.2 Porter's five forces

Porter suggests that the competitive environment and, in turn, competitive strategy is shaped by five forces:

- threat of new entrants
- threat of substitute products or services
- bargaining power of customers
- bargaining power of suppliers
- rivalry among existing competitors in the industry

These forces influence the strength of the competition in an industry, and consequently also determine the profit potential of that industry as a whole.

Note: Porter has also added a sixth force to the model: 'complementors'. These are companies that produce closely related products or services.

Porter argues that the **stronger each of the competitive forces** is, the **lower the profitability of an industry**. For example, if there are a number of competitors of a similar size in an industry, but the industry is in the mature stage of its life cycle and the rate of market growth is low, there is likely to be high rivalry between the competitors. One firm can only grow by obtaining market share at the expense of its competitors, so firms will be keen to ensure that the price of their products and the quality or features of their products matches that of their competitors. However, the intensity of competition between the firms in this industry is likely to mean that profitability levels are lower than in an industry dominated by a monopoly producer and, therefore, in which there is no significant competitive rivalry.

A major factor in the shakeouts that occurred in many industries during and after the financial crisis of 2008/09 was an excessive number of existing competitors in industries. Easy access to capital and buoyant levels of consumer demand had lowered barriers to entry and attracted competitors into industries during the boom years, and they were initially able to succeed even with products exhibiting low levels of differentiation. However, once consumer demand fell, they were not able to sustain their positions.

Note the following caution about using the five forces model though – its very comprehensiveness can encourage users to feel that all factors have been duly considered and dealt with. Unfortunately, this is never the case. Any analysis must pursue as high a degree of objectivity as possible. If there is too much subjectivity, unfounded complacency will result.

Context example: Apple

The industries in which Apple competes are characterised by rapid technological advances, and therefore the company's ability to compete successfully depends heavily on its ability to ensure a continual and timely flow of competitive products, services and technologies to the marketplace.

The company believes that ongoing investment in research and development, supported by effective marketing and advertising, is critical to the development and sale of innovative products and technologies.

Apple has become one of the most valuable companies and brands in the world. But to what extent are Apple's strategies affected by its external business environment?

Competitive rivalry – The markets for Apple's products and services are highly competitive, and the company is confronted by aggressive competition in all areas of business (from rival companies such as Samsung, Google or Amazon).

Markets are characterised by frequent product innovations and technological advances, which reinforces the importance of research and development at Apple.

In addition, it is relatively easy for customers to switch from Apple to other brands, making competition even tougher, and reinforcing the importance of marketing and advertising at Apple.

Bargaining power of customers – The relative ease with which customers can change brands means that it is very important for companies like Apple to maintain customer satisfaction. In this respect, the bargaining power of customers is a strong force.

However, the majority of Apple's customers are individuals, and the value of their purchases is very small compared to Apple's total revenues. As such, at the individual level, the bargaining power of customers is very weak. Nonetheless, the ease of switching (and low switching costs) increase bargaining power.

Bargaining power of suppliers – Most of the components essential to Apple's business are generally available from multiple sources, which means the bargaining power of suppliers will be low.

Apple currently obtains some customised components (not commonly used by its competitors) from single or limited sources, meaning the bargaining power of the suppliers for these components may be higher, but overall Apple's suppliers will have weak bargaining power over the company.

Threat of substitutes – Substitutes are available for aspects of Apple's products – for example, people could use landline telephones instead of an iPhone to make calls, or use a digital camera instead of an iPhone to take pictures.

However, the threat of these substitutes is weak because they have limited features, and customers would rather use an Apple product because it has more advanced features (and combines different functionalities – for example, an iPhone can take photos and make phone calls).

In this respect, although the threat of competitive rivalry in the industry appears to be strong, the threat of substitutes appears to be relatively weak. This again could reinforce the importance of advertising and marketing for Apple, to strengthen brand awareness and brand loyalty relative to rival brands.

Threat of new entrants – Apple holds rights to patents and copyrights relating to certain aspects of its hardware devices, accessories, software and services (which could act as a barrier to entry to a degree).

However, Apple's annual report notes that while patents, copyrights and trademarks are important factors, the company relies more heavily on the innovative skills, technical competence and marketing abilities of its staff for its success.

Any potential entrant is likely to need to develop technical and marketing competences to compete against Apple – which is likely to require a major investment. Similarly, it will take time and money for a new entrant to develop a strong brand to compete against a large firm like Apple.

Therefore, the threat of new entrants is likely to be relatively weak, particularly in relation to new start- ups entering the market. However, there could be large firms with the financial capacity to enter the market – as Google demonstrated in 2010 with its Nexus smartphones.

This again though reinforces the importance of innovation at Apple, in order to allow the company to maintain its competitive advantage – both in relation to existing rivals, and against any potential new entrants.

Professional skills focus: Concluding, recommending and communicating

In the exam, where appropriate, you should use models, such as Porter's Five Forces or PESTEL, to help analyse a situation so that you can present evidence-based recommendations supported by the scenario data.

3.2.3 Competitor analysis

As the name suggests, competitor analysis is an assessment of the strengths and weaknesses of current and potential competitors. This is an important strategic tool – it helps management to understand their competitive advantages or disadvantages relative to competitors and provides an informed basis on which to develop strategies that create or strengthen future competitive advantage.

The main challenge with competitor analysis is determining how to obtain critical information that is reliable, up-to-date and available legally!

Key questions for competitor analysis

One of the first questions that an organisation needs to ask is: Who are the competitors? Once it has established this, an organisation then has to determine:

What drives the competitor?

- What are its goals or strategic objectives (eg, maintaining profitability, building market share and entering new markets)?
- What assumptions does it hold about itself and the industry (eg, trends in the market, products and consumers)?

What is the competitor doing and what can it do?

- What strategies is the competitor currently pursuing?
- What are the competitor's strengths and weaknesses? What key resources and capabilities doesthe competitor have (or not have)?

Competitor response profiles

Once an organisation has analysed its competitors' future goals, assumptions, current strategies andcapabilities, it can begin to ask the crucial questions about how a competitor is likely to respond to any competitive strategy that the organisation might pursue. Trying to assess what the competitors' responses are likely to be is a major consideration in making any strategic or tactical decision.

We will look at competitor response profiles in more detail in relation to marketing strategy in the chapter Strategic marketing and brand management.

Interactive question 2: Competitor analysis

LBG is a manufacturer of specialist stage cosmetics that are specifically targeted at the theatre andfilm industries. Recent developments in the quality of the chemicals used in these products have enabled LBG to expand its product range and to price the products at a premium level.

However, LBG is concerned about the rapid growth of this specialist industry. New competitors havebeen attracted by the premium prices charged by existing players to the extent that overcapacity is an increasing threat.

LBG is keen to protect its market leader status, and its current market share of approximately 40%,despite evidence that the market is maturing. LBG feels it should know more about its competitors,both new and existing, in order to maintain its industry status.

Requirements

1.1 In what ways would LBG benefit from conducting a formal competitor analysis?

1.2 What are the main stages in conducting a formal competitor analysis and what important information should be obtained by LBG at each stage of the analysis?

See Answer at the end of this chapter.

4 Internal factors and strategic capability

Section overview

Although it is important that organisations identify opportunities in the external environment and develop an appropriate strategic position to take advantage of them, an organisation's ability to compete effectively is also determined by its own internal resources and competences. In this section, we will focus on the internal factors that can shape an organisation's strategic success.

4.1 Resource-based approaches to strategy

In the previous section, we looked at the way the external environment influences strategies, through the opportunities and threats which it presents to organisations.

Once an organisation has analysed its external environment, it can then establish an appropriate strategy to achieve a good strategic fit with that environment. This is the essence of the **position- based approach** to strategy: organisations seek to develop competitive advantage in a way that responds to the nature of the competitive environment, and position their strategy in response to the opportunities or threats they discern in the environment.

However, during the 1990s an alternative approach was put forward for delivering long-term competitive advantage. The approach, known as the resource-based view (RBV) emphasises that long-term success lies in organisations making the most of their internal competences and capabilities to deliver value to customers and achieve competitive advantage in an industry.

With the resource-based view, rather than being developed in response to the external competitive environment, strategy is developed by looking at what makes a firm unique, and using an understanding of these unique competences to determine what to produce and what markets to produce for. For this reason, it is sometimes viewed as an inside-out strategic approach. Firms do not look for strategies external to them but instead they develop or acquire resources or competences, create new markets and then exploit them.

RBV suggests that strategic advantage begins with a few key elements that the organisation must concentrate on; its core competences, those things that it does better than its rivals, and its distinctive or unique resources (either tangible or intangible). If these resources are to deliver long- term competitive advantage, they must have four qualities:

(a) Valuable to buyers – They must produce effects or benefits that are valuable to buyers.

(b) Rarity – If a resource or competence is available to an organisation's competitors in the same way as it is to the organisation then it does not confer any advantage to the organisation over its rivals.

(c) Robustness – In order for a resource or competence to confer a sustainable benefit to an organisation, it must be difficult for competitors to imitate or acquire.

(d) Non-substitutability – A resource or competence is no longer a source of competitive advantage if the product or service it underpins comes under threat from substitutes.

Some implications of the resource-based view compared to the traditional positioning view are explained in the following table:

Factor	Positioning view	Resource-based view
Profitability	Profitability is determined by the position of the company relative to the competition as well as by the strength of the five competitive forces (Michael Porter).	Profitability is based on sustainable competitive advantage achieved by exploiting unique resources.
Approach	Consider the external environment and markets then align the organisation with this.	Consider key resources and decide how best to exploit them to compete in chosen
	An 'outside-in' approach.	markets. An 'inside-out' approach.
Key focus	Focus on positioning and re- positioning the company to gain competitive advantage.	Focus on core competences which competitors do not have and will find hard to copy.

4.2 Resources and competences

Different authors define the concepts of resources, competences and capabilities differently, so we are not going to provide definitions of them here, and you will not face an exam question specificallyasking you to define them at this level either.

However, what is important is to recognise: (1) the relationship between resources and competences; and (2) the distinction between **threshold** resources or competences and **unique**resources and **core** competences.

Resources are the assets that an organisation has (eg, staff, equipment) or can call on (eg, partnersand suppliers); while **competences** are the ways an organisation used or deploys those assets effectively.

Resources, on their own, are not productive. Therefore, organisational capability – an organisation'scapacity to successfully deploy its resources to achieve a desired end result – is vital as a basis for achieving competitive advantage. These organisational capabilities could be in a range of different areas:

- corporate functions (financial control; multinational coordination)
- R&D, or innovative and adaptive capability
- Product design
- Operations (operational efficiency; continuous improvement; flexibility)
- Marketing
- People and talent management
- Sales and distribution

Johnson *et al* highlight this point in their text *Exploring Strategy* when they note:

> "There would be no point in having state-of-the-art equipment if it were not used effectively. The efficiency and effectiveness of physical or financial resources, or the

people in an organisation, depend, not just on their existence, but on the systems and processes by which they are managed, the relationships and cooperation between people, their adaptability, their innovatory capacity, the relationship with customers and suppliers, and the experience and learning about what works well and what does not."

Threshold resources and threshold competences are needed to meet customers' minimum requirements and are therefore necessary for the organisation to continue to exist.

Unique resources and **core** competences underpin competitive advantage and are difficult for competitors to imitate or obtain.

The key point to note here is that an organisation needs threshold resources or competences as a prerequisite in order to operate, but these resources or competences by themselves will not confer any competitive advantage on the organisation.

For example, an airline company needs aircraft and cabin crew in order to operate, but aircraft are not a source of competitive advantage. By contrast, having the most modern aircraft, and having cabin crew who offer the highest quality service to passengers could be a source of competitive advantage (although it may not be a source of sustainable competitive advantage – since competitors could also buy new aircraft, and improve the quality of customer service provided by the cabin crew).

4.3 Core competences and strategic capabilities

Hamel and Prahalad suggest that an important aspect of strategic management is the determinationof the competences the company will require **in the future** in order to be able to provide new benefits to customers. They say a **core competence** must have the following qualities:

- it must make a disproportionate contribution to the value the customer perceives, or to the efficiency with which that value is delivered;
- it must be 'competitively unique', which means one of three things: actually unique; superior tocompetitors; or capable of dramatic improvement; and
- it must be extendable, in that it must allow for the development of an array of new products and services.

In many cases, a company might choose to combine competences.

Bear in mind that **relying on a competence is no substitute for a strategy**. However, a core competence can form a basis for a strategy. Here it is important to reiterate that a core competence must be **difficult to imitate** if it is to confer lasting competitive advantage. In particular, skills that can be bought in are unlikely to form the basis of core competences, since competitors would be able to buy them in just as easily. Core competences are more about what the organisation is than about what it does. So it is possible to regard a strong brand as a kind of core competence: it is a unique resource that confers a distinct competitive advantage. (We will look at brands in more detail in the chapter Strategic marketing and brand management.)

Context example: Eastman Kodak

The experience of Eastman Kodak (Kodak) highlights the impact of substitutes on an organisation's strategic capabilities.

Kodak had almost unrivalled capability for producing colour films for photographic prints, and was recognised as a market leader in the photography industry.

However, following the emergence of digital cameras as a substitute product for traditional cameras,most customers switched to using digital cameras, and therefore no longer need traditional films.

Subsequently, Kodak has had to redefine its competences, and now focuses its technological experience in materials science and digital imaging to provide solutions for business customers – ingraphic arts, commercial printing, and publishing for example.

4.4 Position audit

The position audit is that part of the planning process which examines the current state of the business entity's strategic capability, in relation to:

- resources of tangible and intangible assets and finance
- products, brands and markets
- operating systems, such as production and distribution
- internal organisation
- current results
- returns to shareholders

The elements of the position audit are:

- resource auditing
- analysis of limiting factors
- identification of threshold resources/competences
- identification of unique resources/core competences

4.5 Resource audit

As the name suggests, resource audits identify the resources available to an organisation. These resources can be categorised as financial, human, intangible or physical. By determining what resources they have, companies can identify what additional resources are required to pursue theirchosen strategy.

Competitive resources

Richard Lynch's text *Strategic Management* provides a useful checklist for analysing whether anorganisation's internal 'resources' can be construed as strengths or weaknesses.

Aspect of resources	Questions to ask
Market share	How does the company's market share compare to competitors? Are there any particular areas in which the company dominates orhas a strong market share? How does the level and quality of the company's marketing activitycompare to competitors'?

Market growth	Is the company involved in growth markets, or is it involved primarily in mature/declining markets?
Product quality	Do the company's products and services offer good value for money for customers? Does the company have a good quality record in relation to the price of its goods or services? How many customer complaints does it receive?
Leadership	How effective is the company leadership? Is it risk taking or risk averse? Is it ethical?
Purpose and objectives	Are the company's purpose and objectives clearly stated? Are the objectives known to the people responsible for delivering them? Is performance against key objectives measured?
Management and workers	Does the company have a good industrial relations record? How does staff turnover compare to competitors? How does the quality or experience of management resource compare to competitors?
Financial position	Is the company financially sound or are its financial resources stretched? What has been its profit record and earnings per share record over the past few years? Are there any 'difficult' shareholders?
Profit performance	How does the company's profit record compare to competitors? How do products and distribution costs compare to competitors? Could production and distribution costs be reduced?
Investment practice	How much does the company invest in capital investment? How does this compare to the level of competitors' investment?
R&D; Innovation	How important are R&D and innovation in the industry? How does the company's record in these areas compare to competitors'? Does the company support innovation and knowledge management?

As we have already suggested (in relation to resources and competences) resources are of little or no value to an organisation unless they are organised into systems and so, rather than simply looking at resources in isolation, a resource audit also needs to consider how well or badly resources have been utilised, and whether the organisation's systems are effective and efficient in meeting customer needs profitably.

4.6 Strategic capability

An organisation's ability to survive and prosper, and to deliver future value, depends on its strategiccapability.

Definition

Strategic capability: The adequacy and suitability of an organisation's resources and competences tocontribute to its long-term survival or competitive advantage.

When evaluating an organisation's strategic capability, the following questions are important:

(a) Does the organisation have a suitable business model to deliver future success, based on an understanding of the sources of competitive advantage that contribute to profitability and growth across the value system of the organisation?

(b)Does it have the people, processes and resources it needs to be able to deliver this success?

We will look at human resource management and workforce flexibility in more detail in the chapter Human resource management, but the following example from the ICAEW Finance & Management Faculty's report 'People and Skills' (March 2016) highlights the way increasing workforce flexibility canimprove an organisation's performance.

Context example: Wales & West Utilities (WWU)

Gas emergencies do not confine themselves to normal working hours: they are most likely to happen early in the morning (when people get up to start breakfast) or when they come home from work in the evenings. As a result, the gas supply network Wales & West Utilities' (WWU's) practice of employing engineers on standard nine-to-five shifts left them paying a lot of overtime to make sure emergencies were dealt with quickly.

Industry regulations mean that WWU has to get to all gas emergencies within one hour, so having the right people in the right place at the right time is extremely important because it prevents potentially serious situations from getting even worse.

WWU decided that it needed a new shift pattern that better matched engineers' time with demand for their expertise – whilst also giving the engineers the flexibility they needed to meet their responsibilities outside work.

The company analysed five years of data about gas emergencies, including when and where they happen, and used that to devise revised working patterns, which were then discussed with staff (and union representatives).

The workload data helped to actively demonstrate the need for change, and since making changes overtime in WWU's emergency services department has been reduced by 34% and the working week is now an average of 1.5 hours shorter for each individual.

Similarly, we will look at the importance of processes in the chapter Strategic implementation, in the context of operations management. The key point to note here, though, is that the design, implementation and control of an organisation's processes can be vital in enabling an organisation to maintain its competitive advantage, and to achieve its strategic objectives.

Moreover, the use of big data and data analytics means businesses have more information about their processes than they had previously. This should help organisations to identify processes quickly which are not performing efficiently. But equally, it increases the importance of doing so – otherwise organisations will be at a competitive disadvantage to competitors who use the data available to them to drive their performance.

We will look at some current technological developments at the end of this chapter, but the way an organisation makes use of these developments (such as automation and intelligent systems) could contribute to the organisation's strategic capability.

4.6.1 Acquiring resources and competences

When considering resources and competences, it is important to remember that companies often need to acquire assets or competences from outside their own controllable resources and competence-building activities.

These 'external' resources can include:

- integrated supply chains
- networks of firms
- longer-term alliances
- acquisition of, or merger with, another company

Equally, a resource for a firm could include **access** to supplies and/or distribution networks, so resource management is not simply a matter of ownership and control.

4.6.2 Dynamic capabilities

Resources and competences are often regarded as being more valuable if they can be relied on to last for a long time (and therefore provide a sustainable benefit). However, periods of environmentaluncertainty and change may require organisations to renew – or upgrade – their competences in order to deal with the changing conditions. This highlights the need for organisations to possess dynamic capabilities.

Definition

Dynamic capabilities: An organisation's abilities to develop and change competences to meet the needs of rapidly changing environments (Johnson *et al*).

Dynamic capabilities demand the ability to change, innovate and learn, in response to the changing environment. The ability to adapt to changes in markets or the environment sooner and more astutely than competitors could be a source of competitive advantage; and similarly an organisation's ability to 'develop and change competences' could be seen as a competence in its own right.

Conversely, if firms fail to adjust their core competences and capabilities in response to environmental changes, their capabilities could become irrelevant, or might even become 'core rigidities'. (That is, a potential downside of core capabilities is that they inhibit innovation, because managers prefer to concentrate on using resources in the current way, rather than combining them in different ways, or repurposing them for new uses, such as producing new product lines in response to changing customer demand.)

4.7 Agile organisations

Definition

Agile organisations: An agile organisation is one that responds quickly to changes in the marketplace and trends in the workplace. Agile organisations react swiftly to competitor actions.They also review processes and working practices to encourage high levels of employee engagement and morale.

In traditional organisations, hierarchical, functional teams carry out tasks as instructed by managers, whose role is to identify what needs to be done. In an agile organisation, this hierarchy of control is replaced with flexible, autonomous and cross-functional teams that focus on developing solutions tomeet customer needs. Managers communicate the shared goals of the team and encourage team members to make their own decisions about what needs to be done and how.

Agile organisations are often characterised by the following:

- Shared purpose and vision – teams are encouraged to seize opportunities that fulfil this purpose and vision. Allocation of resources is flexible in order to support achievement of the vision.
- Flat company structure – employees are empowered to fulfil their role and managers are hands-on.
- Role mobility and entrepreneurial drive – agile businesses encourage employees to move roles to develop their cross-functional skills and knowledge. Employees are encouraged to pursue opportunities to develop new initiatives and to innovate.
- Effective, user-friendly technology – this facilitates communication, decision making and feedback across teams.

Context example: Agile performance management

In order to respond quicky to market and workplace changes, agile organisations need employees who are engaged and motivated. A key element of this is the rejection of the annual performance appraisal process in favour of more employee-led, continuous performance management systems. Clydesdale and Yorkshire Bank (CYBG) recognised that their traditional performance management process was not generating the performance they hoped for so, following an internal consultation, they launched an agile, continuous feedback process encouraging ongoing feedback conversations between managers and employees. Instead of creating annual objectives, teams agree on quarterly goals that they are going to deliver. Each employee also sets two personal development goals for the same time period, all recorded and monitored using performance management software so that data can be used to support the process. According to CYBG's Head of Organisational Developmentthe new performance management approach 'is now focused on encouraging feedback conversations, creating stretch and improved teamwork. The technology is also giving us insight to drive more change and provide the foundations for good management'.

Source: Hearn.S (2019) *5 Great Examples of Agile Organisations* [Online] Available from: https://www.clearreview.com/5-examples-of-agile-organisations/ [Accessed 2 September 2021]

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5 Analysing strategic position and performance

Section overview

- So far in this chapter we have highlighted the importance of analysing an organisation's external environment, and its internal capabilities.
- Tools such as product life cycle, the product/service portfolio (BCG matrix) and the value chain can also help evaluate an organisation's internal position.
- However, the two elements (external and internal) need to be drawn together in order to formulate potential strategies for an organisation. This can be done by combining the internal elements (strengths and weaknesses) with the external elements (opportunities and threats) into a SWOT analysis.

5.1 Product life cycle

The product life cycle concept holds that products have a life cycle and that a product demonstrates different characteristics of profit and investment at each stage in its life cycle. The life cycle concept is a model, not a prediction (not all products pass through each stage of the life cycle). It enables a firm to examine its portfolio of goods and services as a whole.

The stages in a product's life cycle are:

- introduction
- development and growth
- maturity
- decline

During strategic planning, products should be assessed in three ways:

- The stage of the life cycle the product has reached.
- The product's remaining life (how much longer will it contribute to profits)?
- How urgent is the need to innovate (to develop new and improved products)?

An analysis of a product's position in its life cycle can also help an organisation determine what type of strategy might be suitable for that product. For example, once they reach maturity, products become more standardised and differences between competing products become less distinct.

Consequently, a strategy based on efficiency may be more appropriate than a differentiation strategy for mature products.

We will return to this idea in the chapter Strategic marketing and brand management when we look at marketing strategy, and how this can be influenced by a product's position within its life cycle.

Context example: Apple

In its Annual Report, the consumer electronics and software giant Apple identifies the risk factorswhich could affect its business.

One of the factors identified in the 2018 Report is that the markets for the company's products and services are highly competitive and are subject to rapid technological change:

"The Company's products and services are offered in highly competitive global markets characterized by aggressive price cutting and resulting downward pressure on gross margins,frequent introduction of new products, short product life cycles, evolving industry standards, continual improvement in product price/performance characteristics, rapid adoption of technological and product advancements by competitors, and price sensitivity on the part of consumers and businesses.

The Company's ability to compete successfully depends heavily on its ability to ensure a continuing and timely introduction of innovative new products and technologies to the marketplace … As a result, the Company must make significant investments in R&D. There can be no assurance that these investments will achieve expected returns, and the Company may notbe able to develop and market new products and services successfully.

The Company currently holds a significant number of patents and copyrights and has registered,and applied to register numerous patents, trademarks and service marks. In contrast, many of the Company's competitors seek to compete primarily through aggressive pricing and very low cost structures, and emulating the Company's products and infringing on its intellectual property. If the Company is unable to continue to develop and sell innovative new products with attractive margins or if competitors infringe on the Company's intellectual property, the Company's ability to maintain a competitive advantage could be adversely affected."

The 2018 Annual Report showed that the company's annual R&D expenditure for the year to September 2018 was $14.2 billion (compared to $11.6 billion in 2017, and $10.0 billion in 2016).

The Report notes that the growth in costs reflects the expansion in its R&D activities. And it reiterates:

"The Company continues to believe that focused investments in R&D are critical to its future growth and competitive position in the marketplace, and to the development of new and updated products and services that are central to the Company's core business strategy."

Source: Apple (2018) *Annual Report, Form 10-K* [Online] Available from: http://www.annualreports.com/HostedData/AnnualReports/PDF/NASDAQ_AAPL_2018.pdf [Accessed 5 July 2019]

Interactive question 3: Product life cycle

3C is a medium-sized pharmaceutical company. In common with other pharmaceutical companies, it has a large number of products in its portfolio, though most of these are still being developed.

The success rate of new drugs is very low, as most fail to complete clinical trials or are believed to be uneconomical to launch. However, the rewards to be gained from a successful new drug are so great that it is only necessary to have a few on the market to be very profitable.

At present, 3C has 240 drugs at various stages of development; with many still being tested or undergoing clinical trials prior to a decision being made as to whether or not to launch the drug.Currently, 3C has only three products that are actually 'on the market':

- Epsilon is a drug used in the treatment of heart disease. It has been available for eight months and has achieved significant success. Sales of this drug are not expected to increase from their current level.
- Alpha is a painkiller. It was launched more than 10 years ago, and has become one of the leading drugs in its class. In a few months the patent on this drug will expire, and other manufacturers willbe allowed to produce generic copies of it. Alpha is expected to survive a further 12 months afterit loses its patent, and will then be withdrawn.
- Beta is used in the hospital treatment of serious infections. It is a very specialised drug, and cannot be obtained from a doctor or pharmacist for use outside the hospital environment. It was launched only three months ago, and has yet to generate a significant sales volume.

Requirement

Using the product life cycle model, briefly analyse 3C's current product portfolio.

See **Answer** at the end of this chapter.

5.2 Boston Consulting Group (BCG) matrix

The Boston Consulting Group (BCG) developed a matrix that assesses businesses in terms of potential cash generation and cash expenditure requirements. Strategic business units are categorised in terms of market growth rate and relative market share.

The matrix is as follows:

BCG matrix

		Relative market share	
		High	**Low**
Market growth	**High**	Stars	Question marks
	Low	Cash cows	Dogs

A company's portfolio should be balanced: with cash cows generating finance to support stars and question marks, and with a minimum of dogs.

One of the main problems with the matrix is that it is built around cash flows when in fact innovative capacity may actually be the critical resource, particularly in such industries as electronics and cars.

The BCG matrix can be paralleled with the product life cycle as products develop from question marks, through to stars and then cash cows as they enter maturity and finally become dogs as the product declines. Such a development is clearly very stylised.

However, as well as analysing where different products or business units fit into their portfolio, companies have to determine the strategy appropriate for them.

Stars. In the short term, these require capital expenditure in excess of the cash they generate, in order to maintain their market position, and to defend their position against competitors' attack strategies, but they promise high returns in the future. Strategy: **build**.

In due course, stars will become **cash cows**. Cash cows need very little capital expenditure (because opportunities for growth are low) and generate high levels of cash income. However, products which appear to be mature can be reinvigorated, possibly by competitors, who could come to dominate the market. Cash cows can be used to finance the stars or question marks which are in their development stages.

Strategies: **hold**, or **harvest** if weak.

Question marks. Do the products justify considerable capital expenditure in the hope of increasing their market share, or will they be squeezed out of the expanding market by rival products?

Question marks have the potential to become stars if they are successfully developed. However, if their development is not fruitful, they may end up consuming a lot of investment and management time but end up as 'problem adults' rather than stars, as had been intended.

Strategies: **build, harvest or divest**.

Dogs. They may be ex-cash cows that have fallen on hard times. Although they will show only a modest net cash outflow, or even a modest net cash inflow, they are cash traps that tie up funds and provide a poor ROI. However, they may have a useful role, either to complete a product range or to keep competitors out. There are also many smaller niche businesses in markets that are difficult to consolidate that would count as dogs but which are quite successful.

Strategies: **divest** or **hold**.

The strategies

Build. A build strategy forgoes short-term earnings and profits in order to increase market share.

This could either be done through organic growth, or through external growth (acquisition; strategic alliances etc).

Hold. A hold strategy seeks to maintain the current position, defending it from the threat of would-be 'attackers' as and where necessary.

Harvest. A harvesting strategy seeks short-term earnings and profits at the expense of long-term development.

Divest. Disposal of a poorly performing business unit or product. Divestment stems the flow of cash to a poorly performing area of the business and releases resources for use elsewhere.

Interactive question 4: BCG matrix

CPH plc is a diversified conglomerate with business units in four different industries. The original CPH business was a construction company, however, and the construction division remains the largest business within the group.

CPH plc's total revenue for the last financial year was $12.9 billion, split across the group's four trading companies as follows:

	$bn
Construction	5.4
Engineering	3.5
Transport	2.8
Gaming	1.2

The following market information has also been produced by the management accountants of eachof the four trading companies:

	Market growth	Turnover of nearest rival
Construction	2%	$3.8bn
Engineering	4%	$8.7bn
Transport	11%	$4.7bn
Gaming	13%	$0.7bn

Requirement

Evaluate CPH plc's business portfolio, using the BCG matrix.

See **Answer** at the end of this chapter.

5.2.1 Shell Directional Policy Matrix

The matrix (developed by Shell in the 1970s) resembles the BCG matrix, but measures the attractiveness of the market (based on its potential profitability) and a company's strength to pursue it (based on the company's competitive capabilities).

Recommendations based on the position of these two elements are shown below:

Shell Directional Policy Matrix

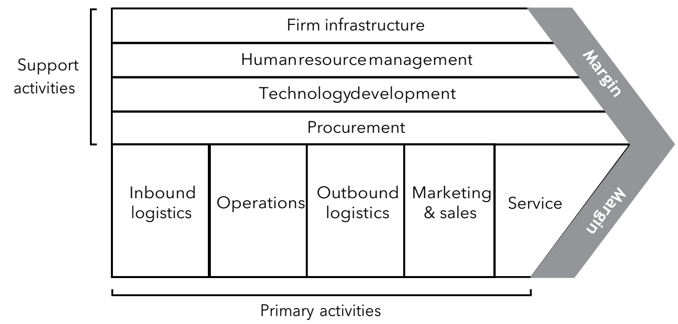
		Business strengths	
Market attractiveness		**High**	**Low**
	High	Invest	Grow
	Low	Harvest	Divest

5.3 Value chain analysis

Michael Porter (who developed the value chain) argues that competitive advantage arises from the way an organisation uses its inputs and transforms them, through value activities, into outputs that customers are willing to pay for.

The value chain describes those activities of the organisation that add value to purchased inputs. Primary activities are involved in the production of goods and services; support activities provide necessary assistance to support the primary activities; and linkages are the relationships between activities.

Figure 1.4: Porter's value chain



As well as using the value chain to establish where it creates value for the customer, an organisation can use the model in other strategically beneficial ways, including the identification of critical success factors and opportunities to use information strategically. For example, an organisation can use the value chain to contribute towards competitive advantage by:

(a) inventing new or better ways to perform activities

(b) combining activities in new or better ways

(c) managing the linkages in its own value chain to increase efficiency and reduce cost (For example, could some activities be outsourced, or could cost savings be made by changing the way activities are structured through combining fragmented purchasing activities into a central procurement system for instance?)

(d) managing the linkages in the value system

The idea of linkages in the value system raises the issue of supply chain management, which we will look at in more detail later in this Workbook.

The value chain helps managers identify those activities which create value for a firm's customers. As a result, value chain analysis can also help managers to identify the key processes and areas in which a firm has to perform successfully in order to secure a competitive advantage.

These key areas are the firm's critical success factors (CSFs). Therefore, it is important to note the potential link between this area of the syllabus and CSFs, targets and key performance indicators as elements of performance management (which we will look at in the chapter Strategic performance management of this Workbook).

Interactive question 5: Value chain

A private college, ABC Ltd, provides training for professional accountancy qualifications. It generates the majority of its funds from employers and self-financing students. For most qualifications there are a number of stages that students need to go through before attaining full accreditation; this can take up to four years.

In recent years, the college has placed emphasis on recruiting lecturers, who have achieved success by delivering good academic knowledge of the syllabuses in class. As a result, ABC Ltd's students have had good pass rates. This has led to the college further improving its reputation within the academic community, and applications from prospective students for its courses have increased significantly.

The college has good student support facilities, including online learning support, student help desks and excellent material. It has recently implemented a sophisticated online student booking system.

Courses at the ABC college are administered by well-qualified and trained non-teaching staff who provide non-academic (that is, non-learning-related) support to the lecturers and students.

The college has had no difficulty in filling its courses. The college has also noted a significant increase in the number of students transferring from other training providers in the last year.

Requirement

Apply value chain analysis to the college's activities and evaluate how value chain analysis could be used to assess why the rate of transfer to ABC from other providers is increasing.

See **Answer** at the end of this chapter.

5.3.1 Value system

Activities that add value do not stop at the boundaries of the organisation. For example, when a restaurant serves a meal, the quality of the meat and vegetable ingredients is determined by the farmer who supplies them. The farmer has added value. The farmer's ability is as important to the customer's ultimate satisfaction as the skills of the chef. A firm's value chain is connected to what Porter calls a value system.

The value system offers the potential to improve efficiency and reduce cost through negotiation, bargaining, collaboration and vertical integration.

Vertical integration provides an opportunity to increase profitability by migrating to the part of the value system that has the most potential for adding value.

Note also that information technology (IT) can transform the value chain, and a number of current improvements in value chain activities have been IT driven. (We will look at the strategic significance of IT, including its impact on the value chain, in the chapter Information strategy of this Workbook.)

We will look at value chains and value systems in an international context in the chapter Strategic choice of this Workbook.

5.3.2 Strategic value analysis

One of the benefits of value chain analysis for managers is that it enables them to understand how the processes they manage add value for the customer. In turn, they can then help identify where the amount of value added can be increased, or else costs lowered, with a view to enhancing the competitive position of their organisation.

However, gaining and sustaining a competitive advantage requires an organisation to understand the entire value delivery system, not just the portion of the value system in which it participates. For example, the upstream value chain (suppliers) and the downstream value chain (distributors, retailers) are a crucial part of a manufacturer's value system.

Moreover, the upstream and downstream portions of the value system have profit margins that will be important when identifying a company's cost/differentiation positioning, since the end user consumer ultimately pays for the profit margins along the entire value chain.

Strategic value analysis (SVA) highlights the need to analyse business issues and opportunities across the entire value chain for an industry. Such analysis is critical for multi-stage industries because change in one stage will almost inevitably have an impact on other businesses all along the chain.

SVA prompts companies to ask four key questions:

(a) Are there any new or emerging players in the industry (in any portion of the value chain) that may be more successful than existing players?

(b) Are these companies positioned in the value chain differently from existing players? (In particular, are companies emerging which specialise in single activities within the value chain, eg, marketing and logistics, rather than trying to cover all activities?)

(c) Are new market prices emerging across segments of the value chain?

(d) If we used these market prices as transfer prices within our company, would it fundamentally change the way any of the operating units behave?

SVA is particularly relevant to vertically integrated companies, because it encourages them to consider whether it would be more profitable for them to outsource certain functions or activities rather than continuing to perform them all in-house.

We will discuss outsourcing in more detail in the chapter Strategic implementation of this Workbook.

5.3.3 Business ecosystems

The traditional value chain model looks at the way a company creates and delivers value. However, in recent times, technology (especially digitisation) has changed the way products and services are produced and delivered. (We will look at digitisation in more detail in the chapter Strategic choice of this Workbook.) One specific consequence of this has been the increased **collaboration** between organisations, within business ecosystems: 'dynamic networks of entities interacting with each other to create and exchange sustainable value for participants' (Gartner).

Rather than trying to meet customers' needs by themselves, organisations are looking to become part of ecosystems, which leverage the skills and capabilities of different entities within the network, to deliver products or services that would be too difficult – or too costly – for individual organisations to deliver on their own.

An important implication of this is that companies need to rethink how their business environment operates, how they partner with other organisations, and how they interact with customers. For example, Amazon's ecosystem provides sellers with access to a much larger pool of customers than they might be able to achieve by operating on their own. Similarly, the online food order and delivery service Just Eat provides customers with the widest choice of food outlets, and enables outlets (restaurants; take away providers) who are part of the ecosystem to reach many more customers than they would be able to if they operated alone.

5.4 Gap analysis

This tool enables organisations to study what they are doing currently and where they want to go in the future. Gap analysis can be conducted from the perspective of the organisation, the direction of the business, the processes of the business, and IT. It provides a starting point for measuring the amount of time, money and human resources required to achieve a particular outcome. It can also be used for new products, or to identify gaps in the market.

Importantly, also, if an organisation has identified that it has a 'gap' between the profit it expects to generate and its target profit, then this may indicate the need to identify new strategies or initiatives which can help fill that gap.

Ansoff's matrix summarises the product-market strategies which are available: Figure 1.5: Ansoff's product-market matrix

Market \ Product	Present	New
Present	Market penetration	Product development
New	Market development	Diversification • related • unrelated

5.5 Benchmarking

Benchmarking enables organisations to meet industry standards by copying others. It is less valuable as a source of innovation but is a good way to challenge existing ways of doing things. It involves comparing your own performance with recognised targets, such as industry averages, and allows you to identify areas where you are performing relatively well as well as areas where your relative performance is below expectations.

5.5.1 Benchmarking and strategic position

In this respect, benchmarking can be useful in helping an organisation assess its current strategic position (as in a SWOT analysis). For example, if an organisation believes that one of its strengths is the reliability of its products, how can it be sure of this unless it has tested the reliability of its products against the reliability of other organisations' products?

Equally, however, if a benchmarking exercise identifies that the organisation's products are more reliable than a competitor's products, the organisation could use these findings as the basis for an advertising campaign.

5.5.2 Benchmarking and competitive strategy

Benchmarking could also be useful for assessing an organisation's generic competitive strategy (cost leadership or differentiation). For example, before an organisation decides to implement a cost leadership strategy it would be useful for the organisation to know what its competitors' costs are, and therefore whether it can beat them. If the organisation cannot produce a product or service at a lower cost (or at least the same cost) as its competitors, then it would not seem to be sensible for it to implement a cost leadership strategy.

The same logic applies to differentiation. Whatever an organisation wants its differentiating factor to be, it needs to measure its performance in that area against its competitors before deciding whether or not to use it as the basis for its competitive strategy.

When carrying out benchmarking exercises, you should be asking such questions as:

- Why are these products or services provided at all?
- Why are they provided in that particular way?
- What are the examples of best practice elsewhere?
- How should activities be reshaped in the light of these comparisons?

5.6 Business process analysis

This tool helps organisations improve how they conduct their functions and activities with a view to reducing costs, improving the efficient use of resources and giving better support to customers. The idea is to concentrate on and rethink activities that create value for customers while removing any activities that do not add value.

We will look at the related topic of business process re-engineering in more detail in the chapter Strategic implementation.

5.7 Strategic risk analysis

This involves recognising and assessing risks faced by the organisation, developing strategies to manage them and mitigating risks using managerial resources. Strategies include transferring risk to other parties, avoiding the risk altogether, reducing negative effects of the risk and accepting some or all of the consequences of a particular risk.

Context example: Tesco – Principle risks

In its Annual Report and Accounts, Tesco provides a summary of the principal risks it faces, and for each risk it identifies key controls and mitigating factors.

Some of the principal risks identified in Tesco's 2018 Annual Report are as follows:

Customer – Failing to provide customers with a coherent and engaging journey will make Tesco less competitive and will result in it losing market share.

Transformation – Failing to simplify the business (with clear market strategies, effective change management and making use of technology) will prevent Tesco from being able to maintain or increase its operating margin and generate sufficient cash to meet its business objectives.

Liquidity – If business performance fails to deliver cash as expected, if access to funding markets is restricted, or if the company fails to manage currency risk effectively, this will damage its ability to continue to fund operations.

Competition and markets – If Tesco fails to deliver an effective, coherent and consistent strategy to respond to competitors and changes in the operating environment it will lose market share and will not improve profitability.

Brand, reputation and trust – Tesco needs to ensure customers associate its brand with quality, value and service, but failing to do this means customers will not trust the brand.

Technology – Failure of key IT systems will mean the company cannot operate effectively and could result in a loss of information, leading to financial or regulatory penalties, and damaging the company's reputation.

Data security and privacy – Failing to comply with regulations around data security and data privacy could result in reputational damage, fines and potentially litigation.

People – Failing to attract and retain staff with the capabilities required to make the business a success, and failing to develop the company's culture, will impact on the company's ability to achieve its strategic drivers (including: differentiating the brand; improving operating margin; generating £9 billion cash surplus from operations; and innovation).

Responsible sourcing and supply chain – Failing to meet product safety standards (resulting in death, injury or illness to customers) will damage the company's reputation and could result in financial penalties. Similarly, failing to ensure products are sourced responsibly and sustainably across the supply chain (including fair pay for workers, adhering to human rights, and social and environmental standards) will also damage the company's reputation.

Brexit – Failing to prepare for the UK departure from the EU could cause disruption and impact relationships with customers, suppliers and staff. Disruption and uncertainty would be expected to have an adverse effect on business, financial results and operations.

Tesco, *Annual Report and Financial Statements 2018*, [Online] Available from: https://www.tescoplc.com/media/474793/tesco_ar_2018.pdf [Accessed 30 July 2018]

Tutorial Note
Although Tesco's Annual Report is only an example, a number of the risk areas identified here correspond to the key themes we will discuss in later chapters in this Workbook. So, as you are working through the chapters, try to think how the issues covered in them could affect an organisation's performance, and what implications they have on how an organisation might be managed.

Risk appetite

Alongside risk analysis it is also important for companies to articulate their **risk appetite**. If companies do not articulate their risk appetite, how can they set suitable strategic goals?

For example, can a company that is only prepared to take a very low level of risk expect to achieve as rapid growth as a company that is prepared to accept a higher level of risk?

5.8 Balanced scorecard

The balanced scorecard (developed by Kaplan and Norton) emphasises the need for a broad range of key performance indicators and builds a rational structure that reflects longer-term prospects as well as immediate performance. The balanced scorecard focuses on **four different perspectives**.

Perspective	Question	Explanation
Financial	How do we create value for our share-holders?	Covers traditional measures such as growth, profitability and shareholder value but set through talking to the shareholder or shareholders directly.
Customer	What do existing and new customers value from us?	Gives rise to targets that mat-ter to customers: cost, quality, delivery, inspection, handling and so on.
Internal business	What processes must we excel at to achieve our financial and customer objectives?	Aims to improve internal process-es and decision-making.
Innovation and learning	Can we continue to im-prove and create future value?	Considers the business's capacity to maintain its competitive position through the acquisition of new skills and the development of new prod-ucts.

The scorecard is balanced in the sense that managers are required to think in terms of all four perspectives to prevent improvements being made in one area at the expense of another.

We will look at the balanced scorecard and performance management in more detail in the chapter Strategic performance management of this Workbook.

5.8.1 Financial indicators and ratios

As the balanced scorecard illustrates, it is important for companies to monitor non-financial performance metrics as well as financial ones.

Nonetheless, financial performance measures are still important, and the measures used should cover a balanced range of perspectives:

- growth
- profitability
- liquidity
- gearing

Equally, when an organisation operates in a competitive environment, it should try to obtain information about the financial performance of competitors, to make a comparison with the organisation's own results.

Competitor financial information that could be obtained:

- total profits, sales and capital employed
- ROCE, profit/sales ratio, cost/sales ratios and asset turnover ratios
- the increase in profits and sales over the course of the past 12 months and prospects for the future, which will probably be mentioned in the chairman's statement in the report and accounts
- sales and profits in each major business segment that the competitor operates in
- dividend per share and earnings per share
- gearing and interest rates on debt
- share price, and P/E ratio (stock exchange information)

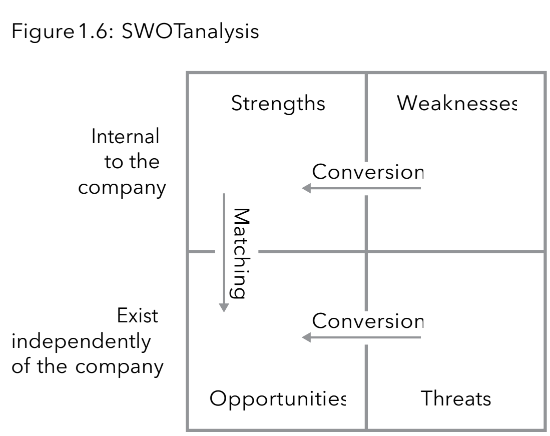
5.9 SWOT analysis

SWOT analysis is a key technique for analysing the strategic position of a company. SWOT analysis identifies an organisation's strengths and weaknesses (based on its internal resource and capabilities) along with the opportunities and threats which have been identified from environmental analysis.

By combining environmental analysis with internal appraisal, SWOT analysis provides a means of assessing an organisation's current and future strategic fit (or lack of it) with the environment.

A complete awareness of the organisation's environment and its internal capacities is **necessary** for a rational consideration of future strategy, but it is not **sufficient**. The threads must be drawn together so that potential strategies may be developed and assessed.

Figure 1.6: SWOT analysis



Remember that strengths and weaknesses identified by internal personnel are only relevant if they are perceived as such by the **organisation's consumers**. Strengths that cannot be matched with an available opportunity are of limited value; and likewise, with opportunities that cannot be matched with strengths. Threats can sometimes be converted into opportunities which can then be matched with strengths. Weaknesses may also be converted into strengths which can be matched with opportunities.

The organisation should look to **match** strengths with opportunities, **neutralise** threats and **overcome** weaknesses. This 'matching' is expressed in the TOWS matrix.

However, an organisation also needs to consider whether its strengths, resources and capabilities support its strategy and provide it with a source of competitive advantage. For example, if an organisation aims to be a cost leader, do its processes provide it with cost advantages over its competitors?

In this context, it could also be useful to carry out a **benchmarking** exercise alongside a SWOT analysis. In order to assess an organisation's strengths and weaknesses more objectively, it could be useful to compare aspects of the organisation's performance against competitors or against leading practitioners of key activities. For example, if an organisation considers that the quality of its customer service is one of its strengths, it would be useful to have comparator information to confirm how well the organisation is actually performing in this area.

Professional skills focus: Assimilating and using information

To understand an organisation's strategic position and how it fits with the competitive business environment, it is important to be able to draw together information from the many exhibits and documents presented in the exam. Information could appear in various formats, including graphs,charts and numerical analysis.

5.10 Corporate reporting and Management Commentary

Definition

Management Commentary: "A narrative report that relates to financial statements that have been prepared in accordance with IFRSs. Management Commentary provides users with historical explanations of the amounts presented in the financial statements, specifically the entity's financial position, financial performance and cash flows. It also provides commentary on an entity's prospects and other information not presented in the financial statements. Management Commentary also serves as a basis for understanding management's objectives and its strategies for achieving those objectives." (*IFRS Practice Statement: Management Commentary – A Framework for Presentation*)

Thus far in section 5 of this chapter, we have discussed a number of frameworks which can be used to analyse an organisation's position and performance. However, we have not, so far, highlighted the link between an organisation's performance and strategy, and the financial information published in its financial statements.

In this respect, the strategic report (or 'Management Commentary' under IFRSs) in an entity's annual report is important.

As the IFRS Practice Statement notes, the:

"Management Commentary provides a context within which to interpret the financial position, financial performance and cash flows of an entity. It also provides management with an opportunity to explain its objectives, and its strategies for achieving those objectives."

Additionally, the Management Commentary complements the financial statements by explaining the main trends and factors that are likely to affect an entity's **future performance**, **position and progress**. Importantly, in this respect, the Management Commentary looks not only at the present, but also at the past and the future.

In particular, the Management Commentary provides **qualitative information** that helps the users of financial statements to evaluate an entity's prospects and general risks. Equally, the disclosures contained in this kind of business review will help to inform stakeholders about an entity's strategy.

Although the precise focus of the Management Commentary will depend on the circumstances of an individual entity, it should summarise a number of the key aspects of strategic management we have highlighted in this chapter.

The IFRS Practice Statement indicates that the commentary should include information that is required to understand:

- the nature of the business (and of the markets and external environment in which it operates)
- management's objectives and their strategies for meeting those objectives (for example, how management intends to address market trends and the opportunities and threats presented by those trends)
- the entity's most significant resources (financial and non-financial), risks and relationships (with key stakeholders)
- the entity's results and prospects. The commentary should include a description of the entity's financial and non-financial performance, and the extent to which that performance may be indicative of future performance.
- the critical performance measures and indicators that management uses to evaluate its performance against its objectives and in relation to its critical success factors. Again, the commentary should refer to both financial and non-financial performance measures that are used.

The ideas of communicating a company's strategies and prospects to stakeholders – and explaining how a company is creating value – are also important aspects of **Integrated Reporting**, which we look at in more detail in the chapter Strategic performance management of this Workbook.

Importantly, though, the Management Commentary is not audited. However, as investors are increasingly paying more attention to the information in the Management Commentary there are calls for this to be separately evaluated by auditors, in order to determine whether the story presented in the Commentary is balanced and reasonable in their opinion.

5.11 Preparing to tackle a case study

While we have recapped a number of theories and models in this section, in reality these models will not be used in isolation. In your exam, you will be expected to demonstrate your ability to apply various tools to evaluate a complex scenario.

It is important to remember that no two cases or scenarios are ever the same – each one must be treated on its own merits. However, there are some fundamental questions that you should ask when reading through the scenario you are faced with in your exam:

- What is the company's main line of business?

- What is its current strategy?
- What are its long-term objectives?
- Are there any potential conflicts in its objectives – for example, financial strategy versus marketing strategy?
- Are there any external issues to consider?
- How is the company performing financially?
- Are there any obvious areas for improvement?
- Does the company have any particular strengths that could be further exploited?
- Are there any limited resources (or other weaknesses) that may affect the company's ability to fulfil its objectives?
- What are competitors doing?

Try to think about the case study scenarios as you would problems in your own workplace or that of a client – think about how decisions taken to solve one issue affect other areas of the business, whether certain decisions will contradict company strategy or affect market perception, the potential financial implications of different actions, and whether a proposed course of action will align with company culture.

If you are given financial information, make sure you use it – whether to establish profit margins, growth or the general financial health of the company.

We will consider data analysis in more detail in the chapter Data analysis of this Workbook.

Also, remember that although the main focus of this chapter (Strategic analysis) has been on business strategy, in your exam you may also have to evaluate the relationships between business and financial strategies in the context of the case study scenario.

Key questions here could be:

- Is the business generating value for its shareholders?
- Will the company's strategies, or the products it is investing in, generate value for its shareholders?

Ruth Bender, in *Corporate Financial Strategy*, suggests there are four different types of factor which could affect the value which a company generates for its shareholders:

- Product – Does the company have a good product? (A good product is one that is fit for purpose.)
- Business – However, it is possible to have a good product that is not in a good business. For example, there are many social networking companies, with millions of users, which have yet to work out a model for generating an income stream from their assets.
- Company – It is possible to have a good business, but not a good company. For example, a sound business can be crippled by the wrong financial strategy. In its early years, Eurotunnel was an example of a good business in a bad company: it took on too much gearing initially, and consequently struggled until its financial strategy was changed in a reconstruction that swapped debt for equity.
- Investment – Finally, it is possible to have a good company that is a bad investment. Shareholders invest in order to make a return (from dividends and share price growth) which adequately rewards their perceived risk from the investment. If a share is already overvalued, however, such growth is unlikely.

Professional skills focus: Structuring problems and solutions

No two exam scenarios are ever the same, but in all instances, you are required to structure information from various sources into suitable formats for analysis. You may be required to apply technical knowledge to analyse problems or to identify creative and pragmatic solutions to businessproblems. Do not be afraid to use your own work experience and commercial acumen to help provide appropriate solutions and advice.

5.12 Assurance issues in UK

Narrative information

Our discussion of Management Commentaries earlier in this section has highlighted that a company's annual report should now contain non-financial and forward-looking information about itsobjectives and strategies, as well as providing readers with historical information about its financial performance. (In the UK, companies that are not small companies have to prepare a strategic report

as part of their annual report, providing shareholders with an overview of the company's business model, strategy, performance, position and future prospects.)

However, as the ICAEW Audit and Assurance Faculty (2013) paper – *The journey: assuring all of theannual report?* – highlights, the scope of financial audit is limited to the financial statements. This gives rise to an assurance gap in relation to the non-financial, strategic information in an annual report.

Nonetheless, in order for the information in the annual report about an entity's business model, strategy and future prospects to be valuable to investors, analysts, lenders, regulators or any other users, they need to know it is trustworthy. As such, there could be scope for professional accountantsto provide assurance reports to add credibility to the non-financial information provided in companies' annual reports.

The UK Corporate Governance Code (2018) requires the directors to include a statement in the annual report confirming that they consider the annual report and accounts, taken as a whole, are fair, balanced and understandable, and provide the information necessary for shareholders to assessthe company's performance, business model and strategy. However, as the ICAEW Audit and Assurance Faculty's paper suggests:

"In the wake of the global financial crisis, trust in business and in the financial world has been severely damaged. Many people are asking what can be done to make business information more trustworthy. We believe that assurance on the annual report, going beyond the audit of thefinancial statements, is a vital part of the practical solution to this problem."

Risk disclosures

A second paper by the ICAEW Audit and Assurance Faculty (2014) – *The journey milestone 2: assurance over risk disclosures* – also addresses the issue of providing an assurance opinion over therisk disclosures in an entity's annual report (such as the Tesco example we have referred to earlier).

In doing so, the paper highlights two different sets of issues over which an assurance opinion may besought:

- The risk disclosures themselves – Are the right risks included? Are enough risks disclosed? Or hasthe business disclosed too many risks and in doing so obscured the most important ones?
- The risk reporting process – If the purpose of risk assurance is to provide investors with

confidence in a company's risk management procedures, then obtaining assurance over the process of compiling the risk report may be more appropriate than assurance over the disclosures themselves.

In relation to the risk reporting process, an assurance engagement would need to focus on the design and effectiveness of the systems and procedures put in place to identify, quantify and reportrisks. It would also need to consider the design and operating effectiveness of the processes to collate and organise risks, and risk management information, in order to provide a materially complete, fair and balanced view of the risks affecting the future operations of an entity.

Materiality in narrative reporting

The ICAEW Audit and Assurance Faculty report (2015) – *The journey milestone 4: Materiality in assuring narrative reporting* – also identifies the need for practitioners to consider the materiality of non-financial information in a similar way to the materiality of financial information. For example, Volkswagen's disclosure that it installed devices to circumvent emissions regulations for its diesel engines has had a significant impact on the wealth of its shareholders – and therefore should be viewed as a material, non-financial disclosure.

In relation to non-financial information, the assertions which need to be considered are:

- Completeness: have all material events related to a topic or event been included or addressed?
- Occurrence and accuracy: is the way in which events and circumstances have been described accurate, and without any significant omissions?
- Presentation and understandability: is the way events have been described appropriate and balanced, unbiased and transparent?

The ICAEW report also highlights the factors which a practitioner needs to assess when considering whether the narrative factors in an annual report could be materially misleading:

- Omission of facts – could the omission of significant facts relating to a claim result in a misleading position being represented?
- Misstatement of facts – have significant facts relevant to a claim been misstated resulting in a misleading position being represented?
- Misrepresentation of trends – are management making claims that do not represent the facts available?
- Bias in description of position or facts – are management focusing on positive factors, and excluding, or understating, negative matters?
- Unsubstantiated claims – are management making claims that would be regarded as important, and would be relied on by users, but that are not substantiated by facts?

Interactive question 6: Materiality of narrative information

In its Annual Report, a retail clothing company states that it has implemented an ethical supply chain policy and a related monitoring mechanism. However, the company doesn't mention in its Report that its monitoring visits to suppliers have identified a number of instances where they are failing to comply with the policy.

Later in its Annual Report, the company also states that, "Over the last three years, we are the most improved retailer for energy efficiency". However, the Report provides no further details about this assertion.

Requirement

Assess the factors which should be considered to determine whether the claims made by the company are materially misleading.

See **Answer** at the end of this chapter.

6 Levels of strategy in an organisation

Section overview

- Strategy exists at a number of levels in an organisation, and it is important that the strategies at each level are aligned with one another.
- We can distinguish three main levels of strategy: corporate level, business level and operational.

6.1 Levels of strategy

Strategies can exist at three main levels within organisations: corporate-level strategy, business-level strategy and operational/functional-level strategy.

Corporate-level strategy is concerned with the overall scope of an organisation and how value is added to the organisational whole. Corporate-level strategy issues include questions around geographical scope and which markets to enter; the diversity of products or services the organisation as a whole will offer; acquisitions of new businesses, or the divestment of existing businesses; and decisions about how resources are allocated between the different elements of the organisation.

Business-level strategy is concerned with how individual businesses or business units compete in their particular markets. For example, business-level strategy could address competitive strategy, or response to competitors' actions.

Operational (or functional) strategy is concerned with how the components of an organisation actually deliver the corporate-level or business-level strategies, in terms of resources, processes and people. Typical functional strategies are:

- R&D
- Operations – including purchasing, procurement and supply chain management; capacity management; production; quality management
- Marketing – including marketing mix, market segmentation and customer relationship management
- Human resources – including recruitment and selection; remuneration and reward; appraisal
- Finance
- Information systems and information technology (IS/IT)

In most businesses, successful business strategies ultimately depend, to a large extent, on decisions that are taken, or activities that occur, at operational level. Operational decisions are therefore vital to successful strategy implementation. (We will look at operational strategies and operations management in more detail in the chapter Strategic implementation of this Workbook.)

Equally importantly, though, operational strategies need to be properly aligned with business-level or corporate-level strategy if these higher-level strategies are going to be successfully implemented.For example, if a business's competitive strategy is based on delivering the highest quality service toits customers, then its human resource management will need to ensure that it has sufficient, well- trained and highly motivated staff to deliver that level of service to its customers.

Although operational strategy may appear to be at the bottom of the strategic hierarchy, this does not mean that operational strategies are any less important than corporate strategies. Satisfying thecustomer is a key task to meet corporate objectives for most businesses; but businesses will not be able to satisfy their customers if operations are poorly managed, meaning that their strategies will fail.

6.2 Contrasting strategic with operational decisions

The contrasting decisions in organisations can be analysed as in the table below. The contrast between corporate-level and operational decisions is also important because it means that the type of information which is required for decision-making at corporate level is very different from that required at operational level.

We will return to this point in the chapter Information strategy when we look at information and information systems.

Characteristics	Corporate strategic decisions tend to be:	Operational decisions tend to be:
Clarity	Ambiguous	Defined
Complexity	Complex and open-ended	Simple
Organisational scope	Whole organisation, or significant parts of it	Restricted to the business function
Significance	Consciously fundamental to what the business is doing	Important, possibly, but does not question the nature of the business
Time horizon	Long term, mostly	Short term, mostly, but could have long-term implications

7 Current technology developments

Section overview

- The amount of data collected by organisations is growing at an ever-increasing rate, and advances in technology are changing the way businesses operate.
- Technological progress is pushing the frontiers of what machines can do, and business can benefit from this through the use of automation and intelligent systems.

We are currently in the midst of a technology revolution and all organisations need to embrace and adapt to technological changes in order to fulfil customer needs and remain competitive. The ABCD technologies, a set of four emerging technologies used by many organisations, will be explored in more detail throughout Strategic Business Management and Leadership.

A - Artificial Intelligence

B - Blockchain

C - Cloud computing

D - Data analytics

(**A) Artificial Intelligence (AI)** is concerned with creating advanced computer systems which have the ability to perform cognitive functions we associate with human minds such as perceiving, reasoning, learning and problem solving. AI is examined in more detail in the chapters Strategic choice, Data analysis and Information strategy.

7.1 Blockchain

Definition

Blockchain: (B) Blockchain is a type of incorruptible, distributed ledger that allows information to be recorded and shared with a network of individuals. The public nature of blockchain means that every individual can view the transactions made by participants in that network. Blockchain is the technology that enables the existence of, for example, cryptocurrencies.

Blockchain is discussed later in this Chapter.

(C) **Cloud** computing permits convenient, on-demand network access to a shared pool of computingresources, such as networks, servers, storage and applications. The chapter Information strategy examines cloud accounting in detail whilst Corporate Governance considers the risks inherent in cloud computing,

(D) **Data analytics** technologies use specialist software and machine learning algorithms to analyse datain order to support strategic decisions and improve business performance. Data and associated technologies are discussed throughout the SBM&L Workbook but detailed analysis can be found in the chapters Strategic choices and also Data analysis.

7.2 Big data

Definition

Big data: 'relates to 'high volume, high velocity and high variety information assets that demand cost-effective, innovative forms of information processes, for enhancing insight and decision-making.' (Gartner)

Advances in technology have increased the amount of data that organisations can collect and store, with large volumes of data being available from inside an organisation and from outside it. However,simply gathering large volumes of data is less important for organisations than what they do with it. The ability to identify trends and insights from the data, which can then be used to inform decision- making, is an increasingly important strategic capability for organisations.

We look at big data and data analytics in more detail in Strategic choice and Data analysis where we consider how organisations can use big data and data analytics to achieve a competitive advantage.

7.3 Internet of things

The internet of things is made up of devices connected together. (The term 'internet of things' is used to refer to devices that would not traditionally be expected to have an internet connection. So,for example, laptops or smartphones aren't part of the internet of things; but traffic lights or 'smart' heating systems are.)

At the heart of the internet of things are sensors collecting and transmitting data. The internet of things provides an opportunity for devices to communicate across different networking types and to create a more 'connected' world. By combining connected devices with automated systems, it is possible to gather information, analyse it and create an action to perform a task, or to learn from a process.

The general benefit for businesses of the internet of things is that it gives them more access to data about their own products, or their own internal systems, thereby improving their ability to make changes.

The following are some potential applications of the internet of things:

- Sensors on products (or components) transmit data about how that product or component is performing. This can help a company identify if a component is likely to fail, so that it can be replaced before it causes any damage.
- Real-time data generated by sensors on products, components or assets can be used to make systems and supply chains more efficient; for example, by being able to track the real-time location of freight which is being delivered.
- Sensors monitoring traffic flows can provide information about the best routes for delivery drivers to take.
- Sensors in smart buildings can adjust temperature automatically – for example, turning air conditioning on if sensors detect a conference room is full, or turning the heating in a building down if everyone has gone home.

Although 'chips' and 'sensors' in devices can be convenient for consumers (for example, using smart thermostats to control their heating systems remotely), in many cases the benefits from the sensors may be greater for the manufacturer than for the consumer, because of the data they can collect and analyse. For example, data about where consumers live, usage patterns and how often products are used, can be analysed and used to amend advertising strategies to try to boost sales.

Context example: Smart meters

In August 2018, the energy firm Scottish Power admitted that smart meters will allow suppliers to introduce 'surge pricing' (following earlier suggestions that this was the 'hidden agenda' behind energy companies rolling out smart meters).The company said that new tariffs which lead to priceshifts every half an hour will be put in place, provided the energy regulator, Ofgem, gives them approval for the scheme.

The scheme relies on smart meters to provide real-time information about the amount of energy being used across the network, with prices adjusting to demand. Smart meters will enable networkcompanies to monitor the exact flow of power, and manage the network in real time to respond tohow people are living their lives.

There are concerns such a scheme could lead to soaring costs for energy usage at peak times (for example, Christmas Day when millions of households are using electricity or gas for cooking dinnerat the same time). However, the energy company said it hoped that smart meters will end up lowering households' bills in the longer run by increasing efficiency.

However, a spokesman for the Department for Business, Energy and Industrial Strategy said thatnobody would be forced into switching to a 'time of use' energy tariff.

Source: Daily Mail (2018), *Smart meters will lead to 'surge pricing'* [Online]. Available from: http://www.msn.com/en-gb/money/personalfinance/smart-meters-will-lead-to-surge-pricing-admits- scottish-power-amid-plans-for-costs-changing-every-half-an-hour/arBBLhQkw?li=AA54rU&ocid=mail signout [Accessed 4 August 2018]

Security is also a very important issue in relation to the internet of things: everything that is connected to the internet, can potentially be hacked. Therefore manufacturers – and users – need to ensure all connected devices are secure. The consequences of an unsecured device being hacked are potentially catastrophic – for example, hacking the sensors controlling the temperature in a power station could mislead the operators into over-heating the station, potentially causing it to melt down.

7.4 Digital assets

Definition

Digital assets: Assets which are held in digital form, that is to say assets which are not available in physical form. Common examples of digital assets include: electronic documents (eg, PDFs; 'Word'documents), presentations, images, logos, audio and video files.

The widespread use of computer systems around the world means that most organisations now hold at least some of their assets in digital form. Digital assets represent strategically important resources for most organisations as they are ultimately linked to an organisation's ability to deliver its selected strategy. As such, many organisations have moved to enhance their strategic capabilities in terms of how they manage their digital assets by implementing digital asset management (DAM) systems.

Definition

Digital Asset Management (DAM) software: A business process management solution which enables organisations to create, manage, share, track and find digital assets.

Most **digital asset management systems** are effectively a centralised, easy to use, repository in which different types of digital asset can be stored. Demand for digital asset management systems, especially among larger organisations, has been driven by the sheer volume of digital assets in existence which are held by different individuals, in different locations, across organisational networks. Common problems associated with this approach include: difficulties in finding digital assets (files, photos etc) on the network especially when required for use by more than one individualor department; digital assets getting lost; and issues around version control of digital assets saved on the network. Such occurrences hinder workforce productivity and ultimately the ability of organisations to utilise their digital assets in the realisation of their overall strategy.

Features of digital asset management systems

Digital asset management systems can support organisational strategies by ensuring that digital assets are easily accessible and available to use as required.

Common features of digital asset management systems:

- Digital assets are saved centrally to avoid the need for multiple network locations.
- Access rights can be set so that only individuals with appropriate authorisation can access and amend digital content.
- Digital assets can be saved according to their file type which is designed to support ease of use.
- A search function which allows users to search for digital assets in the event that the asset name cannot be recalled (ie, the file name). Search functions allow the user to search for content using everyday language ie, December's budget file 20X8.
- Many digital asset management systems are integrated with cloud-based technologies so that the organisation's digital assets can be securely stored and can be accessed around the world.

Context example: Digital asset management in marketing

Digital asset management can be very important in relation to marketing and brand management –enabling the marketing team to find the files they need to produce inspiring, on-brand content quickly and easily.

Each year around 160 million Americans watch the Super Bowl on television. Given these viewer numbers, 30-second advertising commercials are highly coveted, although cost around $5 millionper slot (excluding the cost of producing the commercial). Imagine the consequences for a company's marketing department if one of these adverts featured the wrong logo or font though.

A Super Bowl Commercial is a digital asset, made up of other digital assets, including (amongst otherthings): images, music, video, logos, font. All of these assets must be carefully managed to help tell the brand story effectively.

Every day, more and more digital assets are being created. Trying to keep track of version, licensing,and stakeholder access is harder than ever – so the chances of mistakes increase, unless digital assetsare managed effectively.

Digital asset management can change the way marketing and creative teams get things done:

- Streamlining file creation and repurposing: enabling marketers to create an asset once, or edit anexisting asset, and distribute it quickly via multiple channels.
- Ensure brand consistency: improve the quality of published assets, by preventing accidental useof assets that are outdated or off-brand.
- Reduce time taken searching for files: using tags and metadata enables users to find what they need more quickly, and remove the need to recreate assets when they cannot be found.

Context example: Digital asset management in marketing (2)

Resource Space, a provider of digital asset management systems, highlighted the benefits that digital asset management systems can bring international charities when designing marketing campaigns to support strategic objectives.

In a 2017 article, Resource Space identified that the use of digital asset management systems:

- Helps charities with internationally dispersed operations to ensure consistency in the brand message they promote, as the same digital assets are available to all branches of the charity.
- Allows charity workers, wherever they are based in the world, to access key digital assets, for example, a powerful image captured for use in a marketing campaign.

- Provides users with instant access to digital assets. This functionality is likely to be critical when designing marketing content in response to major incidents. For example, to maximise supportamong donors during an unfolding humanitarian disaster.
- Means that less time and effort is needed when designing marketing campaigns as all digital assets are held centrally. This enables charity workers to spend more time on value-adding activities, such as supporting those in need.

Source: ResourceSpace (2017), *How can better Digital Asset Management help charities*? [Online].Available from: http://www.resourcespace.com/blog/dam_for_charities [Accessed 23 April 2018]

Implementing a digital asset management strategy

The successful implementation of a digital asset management strategy requires the consideration ofa number of practical issues:

- Infrastructure capabilities and storage needs – management need to assess the organisation's current approach to the storage of digital assets in order to determine how best to configure andstructure their digital asset management system. This is important in ensuring that it meets theirneeds.
- Management support – the introduction of a digital asset management system for most organisations will require senior management support, especially as the upheaval to existing workpatterns is likely to be extensive during the implementation stage.
- Selection of supplier – organisations which have not previously used a digital asset managementsystem need to take care to ensure that the supplier of the system is appropriate to the organisation's needs.
- Project team – given the strategic importance of many digital assets, the implementation of a digital asset management system should be overseen by a dedicated project team to ensure thatany disruption caused by the implementation of the system is minimised.

7.5 Automation

Definition

Automation: "the creation and application of technology to monitor and control the production and delivery of products and services". (The International Society of Automation).

Technological advances have rapidly increased the ability for organisations of all sizes to automate activities which had historically been carried out by human workers. The concept of automation in business is not new, as many examples exist of machines having taken over the work traditionally carried out by human beings. The use of robots to complete a variety of pre-programmed production activities is today standard practice in many of the world's manufacturing industries.

However, as the definition provided above highlights, the automation of business processes is not solely restricted to traditional manufacturing type businesses, and is now in widespread use in many service industries. In particular, as Deloitte note in their report '*The robots are coming*', **robotic process automation** is a way to automate repetitive and rules-based processes; the sort of transactional processes like accounts payable processing, or bank reconciliations, which might typically be located in a shared service centre or another part of the back office. Software, acting as a 'robot', is used to capture and interpret existing IT applications to enable transaction processing and data manipulation. As such multiple 'robots' can act as a virtual workforce – in effect, a back office processing centre, but without the human resources.

The key benefits to organisations from using robotic process automation are:

- **Faster handling time.** (Compared to humans carrying out the processes.) Higher volumes of transactions can be processed.
- **Reduced errors.** (Processes are no longer subject to 'human error', so benefit from improved quality and accuracy.) In turn, this can also help to improve customer service.
- **Reduced costs.** The number of human staff required is reduced, because processes are performed by robots instead. Automated rules-based processes provide an alternative to offshoring, and the cost savings that can be achieved through robotic process automation are greater than those achieved by relocating processes off-shore.
- **Improved productivity.** Humans can focus on more complex processes, once rules-based ones have been automated.

7.6 Intelligent systems

Definition

Intelligent system: "a computer-based system that can represent, reason about, and interpret data. Indoing so it can learn about the structure of the data, analyse the data to extract patterns and meaning, derive new information, and identify strategies and behaviours to act on the results of its analysis". (University College London, 2018)

An alternative definition is:

Definition

Intelligent systems: "are technologically advanced machines that perceive and respond to the world around them." (University of Nevada, 2018)

As both definitions above illustrate, intelligent systems in their broadest sense have the functionality to interpret some form of stimulus, and are then capable of responding in some fashion. Intelligent systems are closely associated with the concepts of **Artificial Intelligence** (AI) and **Machine Learning**. Although the terms are often used interchangeably, it is important to recognise that AI and Machine Learning are in fact subtly different. AI is concerned with creating advanced computer systems which have the ability to think for themselves, in much the same way that humans use their intelligence to weigh up information as the basis for determining appropriate actions. Machine Learning is focused on the science associated with getting computer systems to learn how to act without being specifically programmed to do so.

We will look at automation, artificial intelligence and machine learning in more detail in Strategic choice.

7.7 Distributed ledger technology

In a traditional ledger system, records are stored in a single, fixed location and processed and validated by a single party (for example, a company maintains its own accounting records, using its own accounting systems).

By contrast, a distributed ledger is a database that exists across several locations, and with multiple participants. Instead of having a single 'owner' to process, validate and authenticate transactions, records are spread out among all their uses. However, records are only stored once consensus is reached among all the parties involved, meaning that the ledger provides a single, agreed-upon record of transactions.

Two potential applications of distributed ledger technology are: **blockchain,** and **cryptocurrencies.**

7.7.1 Blockchain

In Section 7.3, we highlighted the importance of digital asset management systems for controlling anorganisation's use of digital assets.

Another developing technology which could be used in controlling and managing assets – physicalas well as digital – is blockchain.

Blockchain provides an effective control mechanism, which addresses some of the fundamentalcyber risks associated with using IT systems and the internet.

Blockchain is a type of distributed ledger. It is effectively a form of collective bookkeeping. Transactions are recorded between all the participants using a network which operates via the internet. Unlike traditional bookkeeping records held by a business (which are closed to outsiders and are solely controlled by the organisation) all records in the blockchain are publicly available andare distributed across everyone connected to the network. All transactions between participants arerecorded in identical records (ledgers) held by each user throughout the network. When a transaction between participants (ie, selling and purchasing items) occurs, the details of the transaction are logged in all of the blockchain ledgers simultaneously – recording the time, date, value of the deal, and the details of the participants.

Blockchain records are only updated when all the parties in the network have reviewed and verified that the transaction details are correct. This verification process is carried out by the computers whichmake up the network. The central benefit offered by blockchain is that all participants in the network have access to updated records, in which each individual transaction has effectively been audited by the computers in the network.

It is this control aspect of blockchain technology which holds the greatest relevance for addressing cyber security concerns. Any attempt by a participant to interfere with a transaction, for example by attempting to post incorrect details to the ledger, will be rejected by the network parties assigned toverify the transaction. Failure to achieve consensus will lead to the transaction not being recorded in the ledger in the blockchain.

The following examples illustrate the potential benefits this could have in an organisation's supplychain.

Context example: Everledger and blockchain

One of the key difficulties in authenticating diamonds is that forged paper certificates can make provenance hard to verify, meaning, for example the history of diamonds from war zones (so called'conflict diamonds') is not correctly identified.

That is why, in 2015, Leanne Kemp founded Everledger, a global digital registry for diamonds, with records of all the diamonds stored in blockchain. The key business driver behind Kemp's decision isthe fact that blockchain cannot be changed, so records are permanently stored.

Everledger uses more than 40 features, including colour and clarity to create a diamond's ID. Once this is incorporated into the blockchain, this information becomes a certificate chronicling the diamond's provenance and ownership from the point it was mined to its final form (in a ring or otherpiece of jewellery). As Kemp says "Blockchain is immutable; it cannot be changed so records are permanently stored."

In time, Kemp plans to extend Everledger's scope by building anti-counterfeit databases for otherprecious goods, including fine wines.

Based on: Volpicelli, G. (2017) *How the blockchain is helping stop the spread of conflict diamonds* [Online] Available from: https://www.wired.co.uk/article/blockchain-conflict-diamonds-everledger [Accessed 5 July 2019]

Context example: EY Ops Chain

Whereas Everledger focuses on a single market (diamonds), in 2017 EY launched a more widespreadapplication of blockchain technology – EY Ops Chain.

EY Ops Chain is a smart supply chain, using blockchain technology, which aims to simplify supplychain management and to integrate digital contracts, shared inventory and logistics information, pricing, invoicing, and payments. Ops Chain's aim is to improve forecast accuracy and fulfilment performance, and thereby also to reduce working capital requirements.

A spokesperson for EY said: "Finance is embedded in every phase of business operations, and simplifying the payments, financing and insurance processes ultimately drives business performance.Using blockchain technology to improve these operations can result in business advantages.

For example, cargo in transit can insure and finance itself automatically, and tariffs, taxes and dutiescan be paid instantly upon arrival at a port."

Based on: EY (2017) *EY infuses blockchain into enterprises and across industries with launch of EYOps Chain*. [Online] https://www.ey.com/gl/en/newsroom/news-releases/news-ey-infuses-blockchain-into-enterprises-and-across-industries-with-launch-of-ey-ops-chain [Accessed 5 July 2019]

However, we also need to add a word of caution here. Although blockchain technology aims to remove problems relating to the storage and security of digital data, blockchains themselves are notimmune from being hacked. Organisations should not assume that blockchains can automatically secure their data without fail.

7.7.2 Cryptocurrency

Definition

Cryptocurrency: A form of decentralised, digital currency, designed to serve as a medium of exchange, and which uses cryptography to secure and verify transactions.

Students should be cautios as the digital currencies are restricted in Bangladesh by Bangladesh Bank.

Cryptography is concerned with the creation of codes which are difficult to break. It is commonly used in computer science as a way of securing communications and information. In recent years cryptography has become associated with a form of digital money known as cryptocurrency.

Cryptocurrencies allow users to pay for items purchased online, and to receive payments in anonymity. Unlike traditional currencies, cryptocurrencies are not controlled by a central banking mechanism, and as such the value of cryptocurrencies has been known to fluctuate dramatically. This is due to market forces leading to changes in supply and demand for currency. Transactions using cryptocurrencies are recorded through a network of computers which collectively act to maintain a distributed ledger, known as a blockchain. Blockchain is effectively a public form of bookkeeping in which all transactions between participants in the network are logged and verified by many different nodes, meaning it is very easy to trace any specific transaction, and similarly very difficult to create fraudulent transactions (or counterfeit coins).

Coins are held in digital wallets, secured using cryptographic techniques. To make a payment, the wallet owner sends coins to the recipient's wallet. Payment transactions are collected in 'blocks' which are validated by the community of users. A validated 'block' is appended to a 'chain' of blocks;but once appended it cannot be changed. Therefore the blockchain forms a complete and irrevocable record of all payment transactions.

Units of cryptocurrency are generated through a process known as 'mining'. Cryptocurrency mininginvolves the use of computer mining software to add records of new transactions to the blockchain.'Miners', being those individuals operating the software, are then rewarded with cryptocurrency in exchange for their efforts. It is important to note however, that cryptocurrencies can also be purchased from online brokers. A number of different types of cryptocurrency exist, however the best known cryptocurrency is Bitcoin.

In recent times a number of larger organisations have started to accept Bitcoin transactions as a formof payment. One of the most well-known is the online travel agency, Expedia, which allows users to pay for hotel bookings using Bitcoin. However, central banks and financial institutions remain sceptical about cryptocurrencies; in particular the fact that they are not regulated in the way that traditional currencies are.

Potential benefits of cryptocurrencies

- Frictionless transactions – Cryptocurrencies (like Bitcoin) can be used by people any where in the world to transact with one another, in almost real-time. This removes the time and cost of making cross-border payments.
- Removes intermediaries – International payments using traditional currencies have to be processed through banks, clearing houses, and SWIFT (the network over which financial institutions around the world transmit information to each other). However, it can take several days for transactions to be processed, and transaction fees have to be paid. Cryptocurrencies remove the need for intermediaries to authorise and authenticate transactions, dramatically reducing transaction fees and enabling transactions to be processed in a matter of minutes and seconds, rather than days.
- Reduce risks – The speed of settlement reduces cash flow risk. In addition, Bitcoin payments require funds to be present in a customer's wallet at the time a payment is made. Therefore this also eliminates credit risk.
- Currency management – If a multinational business purchases and sells entirely in Bitcoin (or another cryptocurrency) this eliminates the need to manage multiple currency accounts, and removes the risk of any sudden adverse movements in exchange rates. This could be a particular advantage for businesses working in countries with volatile currencies.

Potential disadvantages and limitations of cryptocurrencies

- Multiple currencies – Although carrying out all its transactions in a single cryptocurrency could remove foreign exchange risk, in practice customers and suppliers may use different cryptocurrencies, meaning that there is still a need to manage different currencies (albeit digital currencies, rather than traditional ones).
- Acceptability – Another factor for businesses to consider is whether cryptocurrencies are accepted (or legal) in all countries it operates in. For example, it will be impossible for companies to trade entirely in Bitcoin if customers in some countries are not willing, or able to

use it. More generally, some customers may prefer to continue to use traditional currencies, so companies willprobably need to continue to accept payment in traditional currency alongside digital currency. Similarly, some suppliers may be unwilling to accept payment in digital currency, including employees who are likely to want to be paid in local currency.

- Volatility – If, as seems likely, a company is unable to work entirely in Bitcoin (or another cryptocurrency), then using Bitcoin for payments incurs an exchange rate risk in the same way thatother transactions in traditional currencies do. Moreover, this risk could be exaggerated by the fact that the value of digital currencies (like Bitcoin) is highly volatile.
- Borrowing – Traditional banks do not lend in cryptocurrency. Therefore although a company may make and receive payments in a cryptocurrency, if it needs to obtain trade finance it may still needto borrow in traditional currency (eg, £ or $) and then convert it to the relevant digital currency.

7.7.3 Accounting for cryptocurrencies

One further consideration for organisations which start using cryptocurrencies is how they should be accounted for. Peter Drummond, a technical manager in ICAEW's Financial Reporting Faculty, has provided the following summary:

As there are currently no specific accounting requirements for cryptocurrencies in either IFRS or UKGAAP, organisations will need to work by analogy to comparable standards and refer to the conceptual frameworks for financial reporting.

It is generally accepted that cryptocurrencies cannot be classified as cash or even as a 'cash equivalent': nor can they be another type of financial asset because the holder has no contractual right to receive cash or another financial asset. So a key question is: where do they fit in the entity'sbusiness model? Are they held for sale in the ordinary course of business so as to be classified as inventory? If not, the default classification for cryptocurrencies would seem to be as an intangible.

Of course classification drives measurement. The most appropriate measurement basis would seem to be at fair value through profit or loss. However, inventories are generally measured at cost (or net selling price if lower) and a cost-based measurement is generally also applied to intangibles. A fair value or revaluation approach would be permitted for intangibles, if an active market exists. But, evenunder this model, valuation movements must be taken to other comprehensive income rather than profit. One certainty is that clear disclosures will need to be made whenever cryptocurrency transactions are material to an entity.

Source: https://www.icaew.com/en/technical/financial-reporting/financial-reporting-faculty/by-all-accounts/july-2018/experts-weigh-in-on-cryptocurrencies

8 ESG and sustainability

Section overview

- Sustainability is about thriving economies and fair societies based on what nature can afford.
- Organisations are developing new strategies to meet sustainability and ESG (environmental, social and governance) objectives.

8.1 Sustainability

Sustainability is becoming a much more important issue to societies as a whole. Selection and evaluation of strategies should consider their impact on sustainability. Strategies may make positive contributions to shareholders wealth and provide benefits to other stakeholders, such as providing employment and producing vital goods and services, but they may also have adverse effects, such as exacerbation of climate change, destruction of ecological systems and failure to look after the welfare of employees.

Definition

Sustainability: The ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. *Bruntland Report 1987*

Sustainable development: Aims to ensure that economic activity can continue without causing permanent harm to society and the planet. It describes a world of thriving economies and just societies based on what nature can afford.

Environmental, social and governance (ESG): Environmental, social and governance (ESG) is a set of criteria used to measure and report sustainability.

According to the Principles for Responsible Investment (PRI), a United Nations-supported international network of investors, Environmental, Social and Governance issues faced by organisations can be defined as follows:

- **Environmental:** Issues relating to the quality and functioning of the natural environment and natural systems. These include: biodiversity loss; greenhouse gas (GHG) emissions, climate change, renewable energy, energy efficiency, air, water or resource depletion or pollution, waste management, stratospheric ozone depletion, changes in land use, ocean acidification and changes to the nitrogen and phosphorus cycles.
- **Social:** Issues relating to the rights, well-being and interests of people and communities. These include: human rights, labour standards in the supply chain, child, slave and bonded labour, workplace health and safety, freedom of association and freedom of expression, human capital management and employee relations; diversity; relations with local communities, activities in conflict zones, health and access to medicine, HIV/AIDS, consumer protection; and controversial weapons.
- **Governance:** Issues relating to the governance of companies and other investee entities. In the listed equity context these include: board structure, size, diversity, skills and independence, executive pay, shareholder rights, stakeholder interaction, disclosure of information, business ethics, bribery and corruption, internal controls and risk management, and, in general, issues dealing with the relationship between a company's management, its board, its shareholders and its other stakeholders. This category may also include matters of business strategy.

Source: https://www.unpri.org/Uploads/x/l/q/maindefinitionstoprireportingframework_971173.pdf

The words sustainability and ESG are sometimes used interchangeably but there is one main difference: sustainability is a general term and can be vague whereas ESG is specific and measurable.

8.2 Strategic importance of sustainability and ESG

Investors are increasingly expecting the companies they invest in to adopt objectives relating to ESG in addition to financial objectives. They are becoming aware that economic sustainability requires consideration not just of short-term financial performance, but of the wider impact on society and theenvironment.

Customers, employees, and society as a whole are demanding that brands consider the environmental and social impact of their business.

Even where shareholders do only wish to consider their wealth, the value of a businesses is not onlyaffected by financial performance, but by the ESG and sustainability factors that affect the risk andreturn of investments.

Risks of failing to consider ESG include:

- Reduced ability to raise finance as many investors will shun companies that perform poorly in relation to sustainability
- Reputational damage, leading to loss of customers
- Fines and potential legal action taken against the organisation for poor environmental behaviour
- Climate change itself brings additional risks, such as risks of extreme weather conditions (droughts and floods) which can potentially have a devastating impact on the operations of the organisation.

Context example: Poor practices in the fast fashion industry

Fast fashion is an industry that has grown up over the past twenty years. Fast fashion retailers have their clothes made for them in countries with very low labour costs, and this enables them to sell clothes very cheaply in developed countries. Consumers buy the clothes and then use them only once or twice before disposing of them. The industry is increasingly earning a bad reputation for increasing the amount of textile waste and therefore depleting natural resources. Many of the large companies in the industry, such as H&M and Boohoo have been involved in scandals related to the use of child labour in their suppliers' factories or paying below minimum wage, and abusing staff. Asa result of this reputation, many consumers are boycotting these businesses.

8.3 Role of Chartered Accountants in sustainability

Chartered Accountants in practice, business and private individuals have a role to play in helping society toachieve sustainability goals. Sustainability solutions can be broadly divided into:

- solutions based on regulation and intervention
- solutions based on market forces.

8.3.1 Sustainability solutions based on regulation and intervention

Solutions based on regulation and intervention include:

- **Mandatory reporting requirements -** (eg, in the UK from April 2022, climate-related disclosures are mandated for listed companies). Accountants will have a role in collecting and reporting thisinformation. Sustainability reporting is discussed in the chapter "Strategic performance management".
- **Regulations -** accountants have a role in ensuring compliance with regulations relating to sustainability.
- **Taxes and tariffs -** there may be taxes levied on certain activities eg, pollution taxes. Accountants will have a role in ensuring compliance with taxes and helping organisations to reduce their tax exposure.

- **Grants may be available** to help organisations improve their environmental behaviour (eg, grants to invest in more efficient machinery). Accountants can help organisations apply for the grants and ensure compliance with any relevant conditions.
- **Assurance:** Compliance audits or audits of sustainability reports may be required. Assurance of ESG disclosures is discussed in the chapter "Strategic performance management".

8.3.2 Sustainability solutions based on market forces

Market forces also encourage organisations to take on the challenges of sustainability and climate change:

Risk management: Climate change and sustainability issues bring significant risks for organisations. Accountants have a role to play in helping organisations to manage their risks. Climate risk and risk management are discussed in the chapter "Business risk management".

Strategy: As discussed above, accountants have a significant role to play in analysing the external environment and how it will impact the organisation and its strategies. However, organisations also need to be aware of the impact that their own activities have on the environment and on social and community issues, including being aware of the activities of suppliers and customers.

Finance: Providers of finance are increasingly preferring to finance organisations whose activities are environmentally and socially sustainable, and who can demonstrate that they are economically sustainable into the long term. In the UK, the government's Green Finance strategy recognises the importance of the financial sector in helping to achieve its target of net zero by 2050. Organisation finance is covered in the chapter "Financial instruments and financial markets".

Governance: Stakeholders are increasingly requiring environmental and social data in addition to the financial data that has been the traditional remit of the accountant. Much of this data will be provided by accountants. Governance is discussed in the chapter "Corporate governance".

Metrics and targets: Accountants are involved in measuring the performance of organisations in both financial and non-financial terms. This involves setting of targets and comparing actual performance against those targets and interpreting the results. Performance measurement is discussed in the chapter "Strategic performance management".

Supply chain management: A supply chain includes all activities relating to the flow and transformation of goods from the initial raw material stage until they reach the final user. The supply chain usually involves many different organisations. Supply chain management involves the organisation managing these activities to achieve competitive advantage. This extends to managing the environmental and social impact of the supply chain (eg, ensuring that all suppliers are adhering to acceptable employment practices, wherever they are located). Supply chain management is discussed in the chapter "Strategic implementation".

Summary

Tick off

An organisation's strategy identifies how it will use its resources and competences to achieve competitive advantage and fulfil stakeholder expectations.	☐
The three main elements of strategic management are analysis, choice and implementation.	☐
Organisations can adopt a range of different approaches to strategy, including a prescriptive (rational model) approach or an emergent approach.	☐
Organisations develop goals and objectives to support their underlying mission, but they must also reflect the interests of key stakeholders when setting their objectives.	☐
There are three interrelated elements to a business strategy: competitive strategy, financial strategy, and investment strategy.	☐
Strategy can also be considered at three main levels: corporate level, business level and operational level, and the alignment between these levels is important in order for corporate strategies to be implemented successfully at operational level.	☐
As part of its strategic planning, an organisation needs to develop an understanding of the external environment and the opportunities and threats that environment presents (eg, by using PESTEL analysis, Porter's five forces, and competitor analysis).	☐
Position-based approaches to strategy focus on the way an organisation responds to the external environment to develop competitive advantage, whereas resource-based approaches focus on the way an organisation can use its own internal resources, competences and capabilities as the basis for competitive advantage.	☐
Analysis of internal resources and capabilities (eg, through resource audit, product life cycle, portfolio analysis, or value chain analysis) helps to identify an organisation's strengths and weaknesses.	☐
These strengths and weaknesses (internal factors) can then be analysed in conjunction with opportunities and threats (external factors) to produce a SWOT analysis.	☐
Business can benefit from using big data, automation and intelligent systems.	☐
Organisations are developing new strategies to meet sustainability and ESG (environmental, social and governance) objectives.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

	Confirm your learning
1.	What factors need to be considered during the analysis, choice and implementation phases of strategic development? (Topic 1)
2.	What are the interests of different stakeholder groups? (Topic 2)
3.	How can you assess the profitability of an industry? (Topic 3)
4.	What is the difference between a resource based and a positioning approach to strategy development? (Topic 4)
5.	Are you able to use tools such as the product life cycle, the BCG matrix and the value chain to evaluate an organisation's internal position? (Topic 5)
6.	Are you aware of the latest developments in technology and how they impact upon strategy development and implementation? (Topic 7)
7.	Can you explain the meaning of sustainability and ESG, and their importance to businesses. (Topic 8)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
2 DDD	This question requires you to apply knowledge of Porter's Five Forces to assess the likely success of a new business. You need sound knowledge of the model to enable you to advise on a strategic decision. Most SBM&L questions do not explicitly ask you to use models or theories, but using onewhere appropriate can help to provide a framework for your response, thusimproving the structure and professionalism of your answer.
4 Patros plc	In this question you are asked to explain how an assurance report can help investors to feel confident about the non-financial information in the annualreport. Assurance represents 10% of the SBM&L syllabus so it is important to be familiar with technical syllabus content regarding audit and assurance. Read through the section in your Workbook on assurance issues before attempting this question.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted those questions, you can continue your studies by moving on to the nextchapter.

Technical reference

1 IFRS Practice Statement: *Management Commentary – A Framework for Presentation*

- Management Commentary is a narrative report that provides a context within which to interpret the financial position and performance of an entity. It also provides management with an opportunity to explain its objectives, and its strategies for achieving those objectives.

2 Business Strategy texts

Although this Workbook is designed to provide you with comprehensive coverage of the material you need for your SBM&L exam, if you wish to undertake further reading around the areas of business strategy discussed in this chapter, we recommend the following texts:

Johnson, G., Whittington, R., Regnér, P., Scholes, K. and Angwin, D. (2017) *Exploring Strategy* (11th edition), Harlow: Pearson Education.

Lynch, R. (2018) *Strategic Management* (8th edition), Harlow: Pearson Education.

3 Website article

There is a useful article about blockchain (called 'What is blockchain') on ICAEW's website. If youwish to understand more about this area, we recommend you look at the article: https://www.icaew.com/technical/technology/blockchain/blockchain-articles/what-is-blockchain

Self-test questions

Answer the following questions.

1 ZTC telecommunications

ZTC, a telecommunications company, has recently been privatised by the Government of Zeeland after legislation was passed that removed the State monopoly and deregulated the communicationsmarket, opening it up to competition from both national and overseas companies.

Prior to this deregulation, ZTC was the sole supplier of telecommunications in Zeeland and was required to provide 'the best telecommunications service the nation can afford'. At that time the Government dictated the performance levels required for ZTC, and the level of resources it would beable to bring to bear to meet its objectives.

Following the privatisation, ZTC's shares were floated on the Zeeland Stock Exchange, with 80% being made available to the population of Zeeland and up to 20% being made available to foreign nationals. The Government of Zeeland retained a 'golden share' to prevent the acquisition of ZTC byany foreign company.

However, the privatisation meant that many of the traditional ways in which the industry had operated would need to change under the new regulations. Apart from the money received from theflotation, the Government privatised ZTC in recognition of both the changing global environment fortelecommunications companies and the overseas expansion opportunities that might exist for a privatised company. The Government recognises that foreign companies will enter the home market but feels that this increased competition is likely to make ZTC more effective in the global market.

Requirements

1.1 With specific reference to ZTC, discuss how the external environment can affect an organisation's performance.

1.2 Explain why the objectives of ZTC will need to change as a result of its privatisation and the deregulation of the market.

2 DDD retail banking

DDD is an international bank with retail banking operations in many countries. DDD's retail bankingis primarily aimed at individual customers and is provided through branches as well as over the internet. DDD offers a wide variety of retail banking products, including savings and cheque accounts, debit and credit cards, insurances, mortgages and personal loans. DDD has a strong international brand image and a long record of success, particularly in Western countries.

DDD has offered retail banking services in country X since 20X8 (10 years ago). DDD decided to invest in X because, at the time, X had a rapidly growing economy, and DDD considered there to be good retail banking opportunities, as only 50% of the population of X had a bank account. DDD initially invested $200 million in entering X, and it established a network of its own branches there. DDD also purchased a local bank in X for $150 million, just after the start of the global financial crisisin 20X7.

X had liberalised its economy 25 years ago, which means it now allows the free flow of capital intoand out of the country. The banking sector contains some State-owned institutions that compete strongly for retail banking business against private-sector rivals. The largest State-owned bank, BX,has half of X's retail banking business and has a strong position of dominance. This has been strengthened recently due to a reorganisation in its senior management and the launch of some successful new retail banking products. These new products have proved to be very popular with customers and are very profitable.

One banking analyst has recently commented that "X's Government has chosen to energise the banking sector through BX. It is less keen on foreign competition. The potential rewards for retailbanking in X are great. There is plenty of growth left in this market and the margins are excellent.However, X's population is very conservative, they don't like change". Within X, mortgage and consumer lending has grown at 20% per year compound from 20X7 to the present day.

DDD's economic intelligence unit has forecast that this growth will continue for the foreseeablefuture because this reflects the policy of X's Government.

There are a number of foreign banks which have been established in X for over 15 years and theseare all profitable. Together, they account for 35% of X's retail banking market.

In the last two years, DDD has identified two foreign banks that entered X at the same time as it did but which have now withdrawn from the country. One of the foreign banks has stated its reason for withdrawal as being, "Our operations in X have reduced group profitability."

At the last board meeting, one of DDD's directors questioned whether it should also withdraw from X, amidst concerns that DDD's operations in X had reduced its profitability as well.

At the meeting, the directors also discussed the principal risks that DDD faces, and how these risks are managed. The CFO and the CEO are keen to improve the quality of the information provided inthe bank's annual report about the principal risks it faces and its risk reporting process. Several of DDD's major investors have requested this information, due to the importance of effective risk management in sustaining the bank's performance and value.

The CFO also recommended that DDD should ask its auditors to undertake an assurance engagement on the bank's risk reporting process in order to provide its investors with increased confidence in the bank's risk management. Several of the other directors questioned why the focusof the engagement should be on the risk reporting process rather than on the disclosures DDD makes in its annual report about its principal risks.

Requirements

2.1 Using Porter's five forces model, evaluate DDD's future potential for a profitable retail banking business within country X.

2.2 Using your analysis from part (a), advise DDD on whether it should continue its retail banking business in country X.

2.3 Briefly evaluate the suitability of the assurance engagement which the CFO is proposing, compared to one focusing on risk disclosures.

3 Verdant Car Company (VCC)

The Verdant Car Company (VCC) was established six years ago as a commercial venture to exploit the patented inventions of Professor Kamm, a university engineering professor. Professor Kamm has patented processes for the production of lithium-ion batteries to power electric cars that can travel up to 175 kilometres before they need recharging. With backing from a venture capital firm, Professor Kamm has established a small production plant in his university town, and has started to manufacture an electric car, the Verdant model. Setting up the plant was helped by the fact that another manufacturer in the town had gone into liquidation, leaving vacant premises that VCC was able to acquire for a low rental cost and a large number of unemployed skilled staff that VCC could recruit.

VCC now manufactures three models of the Verdant: Verdant Green, Verdant Eco-Plus and Verdant Eco-Super. The Verdant Eco-Super is a luxury version of the Verdant Eco-Plus and these two models share 95% of the same components. The Verdant Green is a more basic model that has been designed for use in towns. It uses only 75% of the components used in the Verdant Eco-Plus. All threeVerdant models can be recharged from a domestic electricity supply and have no requirement for petrol to drive them.

The table below provides a comparison of the Verdant Eco-Plus model with a similar-sized car thathas a petrol-driven engine and a hybrid car that is driven by petrol with assistance from an electricmotor.

	Verdant Eco-Plus	**Petrol-driven car**	**Petrol-driven car with assistance from elec-tric motor**
Manufacturing cost	$15,000	$12,000	$14,000
CO_2 emissions	Zero	180 grams/kilo-metre	90 grams/kilometre
Performance	0–100 kilometres per hour (kph): 18 seconds Maximum speed 120kph	0–100 kilometres per hour (kph): 10 seconds Maximum speed 180kph	0–100 kilometres per hour (kph): 12 seconds Maximum speed 170 kph
Economy	$0.08 per kilometre, electricity cost	$4 per kilometre	$2.50 per kilometre
Range	175 kilometres be-forerecharging	550 kilometres on afull tank of petrol	1,200 kilometres on a full tank of petrol

For VCC, manufacturing costs are kept down by two factors: the low rental cost of the manufacturing premises and low labour costs. The company's operations are based in an area of high unemployment and wage demands in the area are low. Production volumes are low in comparison with other car producers, and low volumes have the opposite effect of keeping unit production costsquite high.The company spends a substantial amount of money on selling and marketing its products, and the sales and marketing budget is relatively high in relation to total sales revenue, compared with othercar producers.

The Government has taken some measures to encourage the use of electric cars. It offers tax incentives to businesses for using them and imposes high taxes on petrol and also on cars with largeengines (because they emit more CO_2 than smaller cars).

Verdant model cars are purchased largely by 'green' consumers who are willing to pay more for an environmentally friendly car for short-distance travelling around their homes. They are also popularin the region around the town where the cars are produced. Only 5% of Verdant car production is exported.

Requirement

Analyse the factors that would be considered in a SWOT analysis by the company's strategic planners.

4 Patros plc

Following his recent meetings with a number of the company's key investors, the CEO of Patros plctold you:

'One thing which has become apparent is that investors have a clear appetite for information outsidethe financial statements. Many of them said it provides important context to financial information andhelps give insight into the longer-term viability of companies.

At the same time, however, many investors said they were sceptical of the relevance and reliability ofthe non-financial information provided in annual reports, because it isn't subject to any independentassurance in the way that financial information is.

I'm going to ask the Finance Director whether our accountants could provide any assurance over the non-financial information in our annual report.

Requirement

Explain how an assurance report from the accountants could help to increase investors' confidence inthe non-financial information included in Patros's annual report.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Opportunities

There are clear opportunities for business growth. The tourist business on the islands is growing. Two new hotel complexes have opened and a new complex is planned for an uninhabited island. The complex on the uninhabited island will require transport services for its customers and also for its staff, who will have to travel from the other islands by sea. This complex intends to negotiate a 10- year agreement with a transport company.

The agriculture business is also growing and the demand for cargo services at certain times of the year should also be expected to grow.

However, if STF is to win some or most of the new transport business, it must address its weaknesses (such as insufficient boats or aircraft) and also exploit its competitive advantages.

The following advantages or competences seem to exist and the company may be able to exploit them:

At the moment, it is the only provider of transport by sea in the area. The complex on the uninhabited island will need sea transport for its customers and staff. Cargo is more likely to be transported by sea to the mainland, since sea transport should be much cheaper than air transport for bulk cargo.

The growth in the tourist business generally makes it probable that demand for sea as well as air services will rise in the future. As the only provider of sea transport, STF currently has the advantage of 'monopoly' provider and 'first in the market'. It may be able to exploit this advantage to develop a network of business contacts, and make it difficult for a newcomer to break into the market quickly.

STF has mooring rights. These may be the only mooring rights in existence at the moment. If so, renegotiating them next year will give STF an important strategic asset. On the other hand, the Government may create and sell additional mooring rights, so the value of mooring rights may be much less than supposed.

STF may enjoy the intangible benefits of its acquired experience and knowledge of the islands and local transport. It may be able to succeed because its staff have knowledge that other firms may take a long time to acquire. On the other hand, a rival firm could 'poach' key staff by offering them more money.

Therefore, although STF has some competitive advantage at the moment, this may disappear quickly if a rival transport company were to set up in business. STF must plan to expand the capacity of its services so that it can handle the growth in the business. It should also ensure that the general infrastructure of its business is sufficient to provide the standard of service that customers will expect.

STF should investigate the requirements of the company that is building the new complex, to establish what it can do to improve its chances of winning the business for the island's transport. STF may also consider splitting its passenger transport and cargo businesses, so that managers can focus on one side of the business.

Threats

One of the main opportunities for growth is also a threat to STF – the growth in both the agriculture business and the tourist business on the islands.

STF will not be able to meet the growth in demand with its existing ships and air fleet; so if STF does not take action to increase its capacity, it is probable that one or more competitors will fill the expanding gap in the market.

There is a rumour that a global company in the tourism business may establish an operation in the islands, but it is not clear what activities they would undertake. The global company would only create a threat to STF if it decided to fly tourists direct from other countries to the islands (which may reduce passenger traffic between the islands and the mainland) or if it decided to establish its own transport facilities to take people between the mainland and the islands.

Since STF will have to increase the numbers of its ships or aircraft, its lack of capital is likely to be a significant weakness that could affect STF's ability to respond to the opportunities and threats.

Without finance it cannot pay for new transport, and banks may be unwilling to lend the money.

There is a threat arising from the possibility that STF will be unable to renegotiate its mooring rights next year. Without mooring rights, STF will be unable to operate its ships. There may be alternative mooring rights that could be obtained. However, at the moment there does not appear to be a rival for the rights, so it is probable that STF will be able to obtain the rights for a further five years, even if it has to pay substantially more for them.

Answer to Interactive question 2

1.1 LBG should gather as much information as possible about its competitors, as both new and existing competitors are one of the main elements in its immediate task environment. A formal process of information gathering and analysis provides the best route to thorough coverage without unnecessary duplication; as such a process can be designed to address specific objectives. Reliance on information gathered on an opportunistic basis is unwise, as there is no guarantee that LBG will obtain the specific information it requires. The fact that a formal approach to competitor analysis should make LBG more knowledgeable about who its competitors are and what they are doing can only be advantageous. The philosophy that 'knowledge is power' certainly applies here. In a maturing industry, it is essential that LBG knows who and what pose potential threats to its current position – it is only through this knowledge that LBG will be able to take steps to counteract these threats. As the profitability of a firm is influenced by the competitive environment, it is only through understanding this environment that LBG can hope to continue its success. The knowledge gained from conducting a formal competitive analysis will allow LBG to adjust its strategy to meet the challenges posed by competitors' behaviour. If, for example, competitors are attempting to reduce margins to attract customers, LBG would have to decide whether competing on price is a strategy it would like to pursue, or whether it would prefer to maintain its reputation for quality, premium products. Even if it decides to maintain its current strategy, it is important that LBG knows what its competitors are doing in order to gauge the threats and potential opportunities that may arise from their behaviour.

1.2 The first stage in the competitor analysis process is the identification of who the main competitors are. LBG should be careful here, as it is operating in a specialised niche market. Although there are many manufacturers of branded cosmetics, many of these will be aimed at the high street customer. As LBG manufactures specifically for the theatre and movie industry, it should focus only on those firms that produce similar products aimed at the same market.

Once LBG has established who its main competitors are, it should focus on competitors' goals, such as financial goals, attitude to risk and whether managerial beliefs affect their companies' goals. Are competitors more interested in quantity than quality? Are their managers more intent on them being renowned for low price rather than premium products? The use of a model such as Porter's five forces might be useful here. Different firms in the same industry will have different strategies, therefore it is important to establish how sophisticated competitors' strategies are and hence how much of a threat they are likely to pose.

If possible, LBG should try to establish the aims and objectives of its competitors. Many cosmetics companies market to various sectors, such as the high street, catwalk, theatre and movie industries. What is important for LBG to establish is the relative importance of the movie and theatre industry markets to their competitors. Are they just a sideline, in which case the products may be subsidised by the more profitable main product lines, or are they the main focus of the business?

Establishing competitors' assumptions about the industry is essential, as this will play a large part in determining their future activity. For example, a competitor that strongly believed that the industry was reaching overcapacity might consider leaving the industry altogether. This is linked to the relative importance of the industry to competitors' overall strategy. If movie and theatre cosmetics are only a sideline, the competitor may be more inclined to 'walk away' and concentrate its resources elsewhere. As such, assumptions exist mainly in the heads of senior managers, this kind of information may be difficult to obtain, and LBG may have to rely on opportunistic behaviour to gather details.

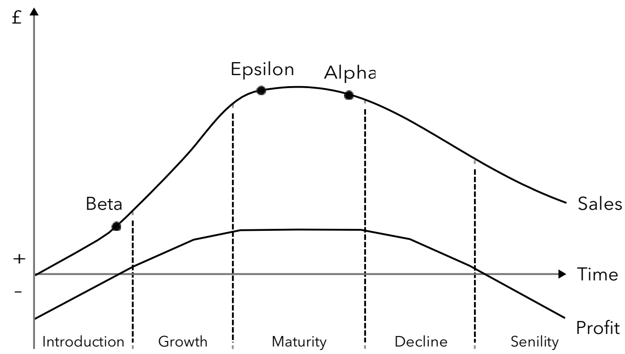
In a specialist industry such as the one that LBG operates in, competitive advantage depends largely on the possession of unique competences and assets. Establishing the extent to which competitors have these is the next stage in the investigation. In the movie and theatre cosmetics industry, the use of new technologies to develop and bring new and improved products to market is particularly important. The ability to work closely with companies responsible for new cinematic techniques is also essential, to allow knowledge-building of how new techniques can affect the effectiveness of the cosmetics.

Once LBG has gathered the information above, it should be able to begin the process of predicting how competitors might behave in a range of possible future circumstances, including changes brought about by LBG's own potential prospective strategies. What should be borne in mind is that competitor analysis is not a 'once and for all' process – it is a continuous activity that is essential to the future prosperity of LBG.

Answer to Interactive question 3

The product life cycle (PLC) is a simple model of the way that the sales of a product and the profits earned by it vary from its launch to its exit from the market. The model is crude in that a product's progress through the phases can be heavily influenced by marketing activity and, in any case, many products do not follow the standard pattern. Nevertheless, the concept is a useful tool for basic portfolio analysis.

The PLC for current product portfolio can be depicted as follows:



(1) Beta has been positioned in the introduction phase, because it has only recently been launched,and has not yet generated significant sales volume. However, Beta is likely to have a fairly accelerated Introduction stage, as it is a specialised product, for which there is already demand within the hospital market.

(2) Epsilon is located at the peak of its cycle. Although it has not been available for long, it has already 'achieved significant success' (and its introduction/growth curve may therefore have been steeper than shown in our 'standard curve' model). Sales are not expected to increase (hence its position at the peak).

(3) Alpha is currently just at the point of decline. It has been available much longer than the otherproducts, so its maturity stage may have been longer than our 'standard curve' model suggests.However, Alpha is about to enter the 'decline' stage, because of the expiry of the patent and theentry of low-cost generic competitors into the market. The decline/senility stage is then only expected to last a further 12 months.

As with any portfolio analysis technique, it is important to look for balance in relation to the PLC. Specifically, this means that a portfolio should include products at several stages in their life cycles, so that as one declines, another is emerging to take its place.

3C's current portfolio seems adequate in this respect, in that while Alpha is expected to enter a rapid decline phase, Epsilon is generating high sales in its maturity phase as an acceptable 'cash cow', and Beta has been launched and still has potential for growth.

However, the fact that Beta is unlikely to generate enough sales volume to replace Alpha (because it targets a specialist market niche) is likely to be a concern. Hence, 3C will need to find a 'mass market' product that can act as a successor to Alpha. However, there are currently 240 drugs at various stages of development, so this should increase 3C's chances of continuing the succession into the future.

Answer to Interactive question 4

Company	**Mkt growth**	**Mkt share**	
Construction	2% – Low	5.4 / 3.8 = 1.42 High	Cash cow
Engineering	4% – Low	3.5 / 8.7 = 0.40 Low	Dog
Transport	11% – High	2.8 / 4.7 = 0.60 Low	Question mark
Gaming	13% – High	1.2 / 0.7 = 1.71 High	Star

The portfolio of CPH appears to be well balanced with one trading company in each sector of the matrix.

However, we should note that we do not have any information about the profitability of the differenttrading companies, which would be useful when gauging the strength of CPH's portfolio.

Currently, the Gaming business ('Star') has a significant advantage over its nearest rival, which shouldenable it to build a strong position in the market. However, we do not know what level of investment (eg, in marketing and promotions) will be necessary to maintain its market leadership in the future.

Answer to Interactive question 5

Value chain analysis (VCA) is a method of reviewing all the activities of an organisation and how theyinteract with each other. Key linkages are identified and areas that create value are focused on. VCA is not restricted to the organisation itself, but also includes its suppliers and customers.

The key 'issue' to address here is identifying which activities in the chain carried out by the college are clearly valued by the students and therefore encourage them to swap to ABC from other trainingproviders. If the college can sustain the elements and linkages in the chain that create value for its students (value drivers) this should help it sustain its competitive advantage over other training providers.

Usefulness of the model

The value chain model was originally designed for use in the manufacturing sector, whereas ABC College is clearly a service-based business. Some of the 'activities' identified in the VCA (eg, outbound logistics) may be more obviously relevant to a manufacturing business than a service one.

Nonetheless, VCA will encourage the college's management to think about how and where they addvalue for their students ('**value drivers**'). In doing so, they should also consider how ABC College differs from the competition and on what basis it will attract staff and students in the future. In this respect, VCA should help the college to identify its order winners or '**core competences**'.

PRIMARY ACTIVITIES

Inbound logistics	Operations	Outbound logistics	Marketing and sales	Service
Student supply Staff supply Facilities supply Course selections and flexibility	Course material production Virtual learning development Classroom technology Structuring of courses	Lecturing styles and quality Provision of material Ease of access to online learning	Marketing mix structure (eg, pricing, differentiated product) Website Promotions (brochures, email) Research	Support functions Social aspects Continuing professional development
			Price elasticity	

SUPPORT ACTIVITIES

Procurement	Technology	HRM	Infrastructure
Printed materials Building work Support staff Students and staff	Availability Ease of use Training Innovation (eg, online learning) Knowledge sharing	Staff selection processes Staff turnover rates Staff training Admin and staff processes	Culture Layout of premises Organisational structure Facilities Planning systems Control systems (professional bodies)

The points shown in each value chain category are a selection of the things that should be looked atwithin this context. However, it is equally important to consider the processes of the college, and to see how the linkages within the value chain fit together. All that needs to happen for the chain to failis for one link within it to break.

Answer to Interactive question 6

Ethical supply chain policy

Although the company has implemented the policy, the fact that it has failed to report that suppliersare not complying with the policy could represent a misstatement of facts.

In forming a view as to whether this is materially misleading to investors, a practitioner would need toconsider the nature of the items omitted and evaluate whether, collectively, they represent a misstatement of the facts relating to the level of compliance with the policy across the supply chain as a whole. In forming this evaluation, professional judgement would need to be applied in relation to the relative significance of the compliance (or non-compliance) to investors, and the extent to which the actual state was misrepresented by the missing facts.

Energy efficiency

As it stands, it may not be possible to evaluate the validity of this claim, because no information has been provided about the basis for it. For example, who has judged that the retailer is the 'most improved'? Is this based on the finding of a credible third-party survey, which provides an objective analysis, or is it based on the retailer's own analysis?

If the claim is based on the findings of a credible third-party survey, then the Report should make reference to this; for example, 'According to the XXX Survey, over the last three years we are the most improved retailer for energy efficiency'.

However, without any such reference point, the current claim could be seen as a misrepresentation of trends.

Again, however, the degree to which this is material could depend on the relative significance of the retailer's energy efficiency to its investors.

Answers to Self-test questions

1 ZTC telecommunications

1.1 Opportunities and threats – ZTC needs to ensure that it understand the ways in which it is affected by the environment in which it operates. In this context, it needs to consider the wider environmental factors (which could be highlighted by 'PEST' analysis) as well as any factors that relate more specifically to the telecommunications industry (which could be highlighted using Porter's five forces model as a guide).

The most significant recent environmental influence on ZTC's performance is likely to have come from a political factor – the deregulation of the telecommunications market in Zeeland.

Impact of deregulation – Historically, ZTC held a monopoly position in the telecommunications market in Zeeland. However, now that the market has been deregulated, ZTC's market share is likely to be eroded when new competitors enter the market. Consequently, it seems likely that ZTC will suffer a fall in revenue, at least in the short term until it identifies alternative markets which it could enter as well.

New entrants – It is not clear how many competitors have entered the market so far, but another threat ZTC needs to be aware of is that of additional new entrants entering the telecommunications market in Zeeland in the future, and potentially reducing its market share further.

Telephone networks – It is likely that ZTC's monopoly was of the fixed line network in Zeeland, rather than mobile telecommunications networks as well. However, it is also likely ZTC will face competition from mobile phone companies.

In this respect, developments in technology (for example, 4G networks) could also boost the performance of mobile phone companies, and thereby increase the level of competition ZTC is facing.

Overall market growth – The scenario does not indicate whether the telecommunications market overall in Zeeland is growing or, if it is, how high the growth rate is.

However, this will also have an effect on ZTC's performance. For example, if the market is growing rapidly, this could help reduce the impact on ZTC's revenues of its market share declining.

Similarly, if the global market is growing significantly, this could provide opportunities for revenue growth. It appears that one of the Government's motives behind the deregulation was to make ZTC more competitively internationally, and so the state of the global market is likely to be important for its future performance.

Customer bargaining power – Another consequence of the deregulation is that customers in Zeeland now have increased bargaining power in relation to ZTC. Previously, as ZTC was the sole supplier, customers had little or no ability to influence price or service. However, now that there is increased choice in the market, customers' bargaining power has increased significantly, because if ZTC's tariffs are not competitive against other providers, or its standards of customer service are poor, customers will be able to switch to one of the competitors in the market.

Employees – The deregulation of the market could also affect ZTC's relationship with its employees. In effect, it could increase their bargaining power as suppliers. Previously, telecommunications engineers in Zeeland could only work for ZTC; but it is likely that in future there will be a choice of companies they could work for. Therefore, ZTC will need to ensure that its rewards package is competitive so that it retains its best staff.

1.2 As a State monopoly, ZTC's role was expressed in terms of its service to the nation as a whole. Its focus was on the public sector aspirations of efficiency, effectiveness and economy, but it was not subject to market discipline and its finances were controlled by government. The lack of market input and the highly technical nature of its operations make it likely that its main operational concern was engineering competence, rather than customer interests. However,

the Government, as principal stakeholder, imposed requirements around performance and service levels to be achieved.

Shareholders as new stakeholders

ZTC now has a new and important class of stakeholder: its shareholders. They will have firm ideas about their requirements in the form of growth, earnings and dividends.

Importance of customers

The company faces a deregulated market where competition will intensify. It will need to pay great attention to the views and needs of its customers: they are a stakeholder group that is likely to wield far more influence than previously, since they will be able to choose new suppliers when new providers of telecommunications services enter the market, following its deregulation.

Impact on objectives

These influences will affect objectives at all levels in the organisation and will require a significant realignment of attitudes. In particular, there will be pressure to reduce costs; to develop new and attractive products; and to improve customer service, particularly in the matter of installing new equipment and dealing with faults.

The respective requirements of shareholders and customers also highlight a potential conflictthat will need to be addressed by the directors when setting the company's objectives.

Shareholders will want to maximise profitability, which may be achieved by raising prices. But customers will seek the lowest price they can get.

Although the Government is no longer the main external stakeholder, it will still be interested in ZTC's performance. The company will continue to make a large contribution to the economyof Zeeland as a major employer and taxpayer; it also has the potential to develop as a major centre of technological excellence.

While the Government will step back from direct involvement in the running of ZTC, it is likely that it will retain an interest in its overall success, and possibly a closer involvement in such matters as the promotion of technological development and overseas expansion which, if successful, could increase ZTC's tax liability to the Government.

Corporate governance

A final influence on the strategic objectives of the privatised company will arise in the field of corporate governance. As a listed company, ZTC will be subject to the normal regulations and codes of practice laid down by its quoting stock exchange. It may also be subject to special government regulation designed to prevent it from using its size and current dominant position to discourage competitors. These influences are also likely to have a marked effect onthe directors' attitudes and practices.

Overall, the objectives of ZTC will need to change to focus on profitability and shareholder reward, as well as customer satisfaction, all of which becomes increasingly important in a deregulated market. Alongside this, the directors will need to ensure the business's controls and governance are adequate to comply with its new regulatory requirements.

2 DDD retail banking

2.1 Threat of new entrants

The threat of a new entrant is limited by **barriers to entry**.

Capital investment – In this case, the main barrier to entry is the **capital investment** required to enter the banking market. In total, DDD spent $350 million to enter the market ($200 million to establish its own branch network, and $150 million to acquire a local bank).

Dominance of BX – In addition, **BX's dominant** position in the market (being a State-owned organisation, accounting for half of X's retail banking business) might act as a potential disincentive to potential new entrants thinking about investing in X.

Recent withdrawals – The fact that two foreign banks have recently withdrawn from X may also discourage potential new entrants from investing there. The banks' claims that their operations in X served to reduce group profitability suggest that X may not be a very profitable market to invest in.

Competitive rivalry

Strong competition – The State-owned institutions provide tough competition for retail banking business in X. Within this context, BX has established a position of dominance, accounting for half this business. In addition, a number of well-established foreign banksaccount for a further 35% of X's retail banking market.

Although the well-established foreign banks are all profitable, it appears the more recent entrants have been less successful. Two of the banks which entered X at the same time as DDDhave withdrawn due to the poor levels of profitability their operations in X have generated.

Therefore, although there appear to be high margins in the banking industry in X, it appears that banks need to have reached a certain size (a critical mass) before they can begin to earn those margins.

Market growth – Nonetheless, the banking analyst's report indicates there is plenty of growth left in the banking market in X, and the margins are excellent. This suggests the competitive rivalry may not be as intense as it might otherwise be, but the dominant position of the established banks still suggests there is a **high level of rivalry** in the banking market in X.

Bargaining power of consumers

The banking market in X is geared primarily towards personal banking so, individually, customers will only have a low degree of bargaining power.

Choice of bank accounts – However, the degree of choice customers have as to which bank to use increases their bargaining power. For example, people in X could choose to bank with: BX,one of the other State-owned institutions; DDD; or one of the other foreign-owned banks.

It is likely to be relatively easy for customers to switch from one bank to another, which again could increase their bargaining power.

Conservatism – X's population doesn't like change, which means they are naturally more likelyto use one of the established banks than a relatively new foreign entrant such as DDD. In effect,this could reduce the bargaining power of customers on the existing banks. By contrast, though, it could increase their bargaining power over new entrants such as DDD. DDD is likely to have to offer the customers significantly better deals than existing domestic banks in the short term to attract new customers.

Threat of substitute products

Although there are a number of different banks which consumers could use, these reflect the level of competitive rivalry in the industry, rather than the threat of substitute products.

Similarly, there is scope for consumers to switch to internet banking services rather than usingthe branch network, but again, this represents a switch within the industry, rather than a substitute product.

In this respect, there don't appear to be any substitutes for banking products as a whole, so thethreat here is low.

Bargaining power of suppliers

Liberalised market – X has a liberalised economy that allows the free movement of capital in and out of the country. This suggests that DDD (and the other banks in the industry) should easily be able to supply their capital requirements in X under normal market conditions, although the global financial crisis could have an impact on these market conditions overall.

The scenario does not indicate any other key suppliers who could influence DDD's operationsin X, so we cannot make any judgement about their strength of their bargaining power.

Potential for future profits

Overall, it appears there is a relatively high level of competitive rivalry in the industry and customers also have a moderate level of bargaining power. However, the threat of new entrants and the threat of substitute products appears to be reasonably weak.

Looking at these forces together suggests that the market should be a profitable one, and this corroborates the analyst's view.

However, the market is not necessarily equally profitable for all the banks in it. Consequently, the potential profitability for DDD's banking business within X is likely to be lower than that of BX's.

2.2 Market profitability and growth – The analysis in part (a) suggests that the retail banking market in R should remain a profitable one. There is plenty of growth left in the market, not least because a high proportion of the population does not currently have bank accounts (thisfigure was 50% in 20X8). As more of the population opens bank accounts, the size of the banking market in the country will necessarily increase.

Competitive rivalry – However, although the market overall is profitable and growing, there is still likely to be a high degree of competitive rivalry within it.

BX presents the strongest competitive threat to DDD. BX already accounts for half the retail banking business in X, and its position has been strengthened by its recent reorganisation, andthe launch of some successful (and profitable) new products.

Consumer preference – Consumers' attitudes to change should also be a concern to DDD. Thecustomers' dislike of change means they are likely to continue using BX and established banksrather than switching to DDD. Even though DDD has a strong brand image and a long record of success, this may not be sufficient to convince customers to switch to DDD.

Profit levels – The fact that DDD is already successful in a number of other countries means that it should only continue in X if it can sustain an acceptable level of profit there. It appears that the two foreign banks which entered the market at the same time were not able to do this, and so they left.

DDD does not appear to have any sources of sustainable competitive advantage which will enable it to be more successful than these banks, or to reduce BX's dominance in the market.

Advice – Therefore DDD should be advised not to continue its retail banking business in country X.

2.3 Although the investors have requested improvements to the information provided about therisks DDD faces and its risk reporting process, it seems that their underlying interest is in thequality of DDD's risk management process.

As such, the purpose of the risk assurance should be to increase investors' confidence in DDD's risk management. Therefore, assurance over the process of compiling the risk report will be more appropriate than assurance simply over the risk disclosures themselves.

Ultimately, the investors want to be confident that DDD has a robust approach to identifying, quantifying, management and reporting risks. Therefore they need assurance over the whole process, not just the output of the process.

The assurance engagement which the CFO is proposing appears to be consistent with this. Bycontrast, the alternative engagement would focus only on the output – that is, the risk disclosures themselves. For example, are the right risks included? Is the quantity of risks disclosed sufficient, or have too few (or too many) risks been disclosed?

Nonetheless, the assurance procedures included within the engagement the CFO has proposed could still include an evaluation of the quality of the disclosures, and the extent to which they accurately reflect DDD's key risks and the way they are managed.

As such, the engagement proposed by the CFO appears to adequately reflect the shareholders' interests.

3 Verdant Car Company (VCC)

The strategic **strengths** of VCC seem to be as follows.

- The batteries for powering the electric motors of VCC's cars are protected by patent. Competitorswanting to enter the market to produce electric cars will have to develop their own technology orwill have to pay VCC for a licence to use its patented technology.
- The company currently benefits from low rental costs for its premises and low wages costs, whichboth help to keep unit costs of production lower than they otherwise would be. It is not clear whether this advantage for the company is expected to continue for the foreseeable future.
- The use of common components for the three models should reduce the company's inventory requirements and may also reduce unit costs of purchase, since the company can buy in larger volumes for all three models.
- VCC's cars are relatively cheap to run, compared with fuel-driven cars. This is a strength that has implications for potential market demand for the cars.
- The technology is 'cleaner' than for competitive cars. This is another strength that has marketing implications.

The company has several weaknesses.

- It has a small product range. Most car manufacturers have a large range of models to appeal todiffering customer tastes, and VCC is limited in the variety of model that it can offer.
- It is a relatively low volume producer, which means that unit costs of production are higher than they would be if the company could produce in larger quantities. Inability to produce in larger volumes is therefore a significant weakness because high costs make the company's products more expensive to sell or less profitable.

- High sales and marketing costs relative to sales volume will also reduce net profit margins. The company enjoys some advantages from conditions in its business environment, and these should be considered opportunities for the business.
- Government policy currently favours electric-powered cars, and offers tax incentives to businessesthat use them.
- High taxes on fuel mean that it is cheaper to run an electric-powered car than other types of cars.This should create opportunities for growth in sales demand as fuel costs get even higher.
- The zero carbon emissions of electric cars will help to give the cars an appeal to environmentallyconscious car buyers and users, and this segment of the car market may increase over time.
- There may also be a sizeable market segment for short-distance users of cars, such as individualswho only use their car for local journeys. For low-usage car drivers, the disadvantages of limited distance before recharging are not so great. VCC may be able to develop this market segment.

There are also threats to VCC's business.

- There is a significant threat from competition. Rival car manufacturers may produce cheaper andmore efficient electric cars, using their own technology.
- There is also competition from producers of petrol-driven cars and hybrid cars, which offer betterperformance and a longer range on a full tank of petrol. Many customers are attracted by these product features and would consider VCC's cars to be an inferior model.
- It is probable that growth in the market for electric cars will remain limited until the range between recharging of batteries is significantly increased, and more centres are made available tothe public where cars can be recharged – in the same way that petrol tanks can be refilled.
- There is a general threat to the market for electric cars from a perception that they are an inferior product.
- There may also be an environmental threat, given the fact that electric cars are powered by electricity and electricity generation is currently a polluting technology.

4 Patros plc

As the investors have identified in their meetings with the CEO, the non-financial information in annual report (eg, the Management Commentary) provides context for the financial information, andprovides an insight into the company's business model, strategy and future prospects.

However, for this information to be valuable to investors – and other users – they need to know it istrustworthy.

Although the accountants will not give the same level of assurance over non-financial information asthey would for a financial statement audit, their assurance will nonetheless add credibility to the information in the annual report.

The assurance could be particularly important in addressing investors' concerns about the followingareas:

- Completeness: Does the information in the annual report provide investors with a complete picture of the business and its prospects, including the risks it is facing? The possibility that information is incomplete, or misleading, could be a major cause for concern for investors (for example, if management has failed to identify, or report on, key risks).

- Presentation and understandability: Is the way events have been described appropriate and balanced, unbiased and transparent? In particular, there is a danger that management could focus on positive factors – or present an unduly optimistic assessment of the company's prospects

  – which is not supported by the facts available. Again, this could be misleading for investors.

- Metrics and calculations: Nonfinancial information still includes performance measures and metrics (for example, around environmental and social performance). As such, investors need tobe confident that the company has selected an appropriate methodology for calculating these metrics, and that the calculations are being performed correctly and consistently. (This idea of consistency is very important, to enable trend analysis.)

More generally, investors also need to be able to trust the relevance of the metrics used. Has the company used metrics which are relevant to the business strategy, and which are not misleading? Forexample, in relation to metrics about environmental and social performance, can investors be confident that management are not 'greenwashing' and that the claims made in the annual report arebacked by evidence and are relevant to the company's business model and strategy?

Chapter 2

Strategic choice

Introduction

Learning outcomes

Examination context and knowledge brought forward Chapter study guidance

Learning topics

1 Strategic choices

2 Generating strategic options

3 Strategic decision-making

4 Evaluating strategic options

5 International strategies

6 Digital strategies

Summary

Further question practice Technical reference

Self-test questions

Answers to Interactive questions

Answers to Self-test questions

Introduction

Learning outcomes

- Assess, advise on and propose appropriate business strategies to meet stated objectives
- Identify and evaluate business unit strategies to achieve sustainable competitive advantage
- Explain and demonstrate how financial and non-financial data can be analysed in order to select an optimal business strategy, including the impact of big data on business models
- Explain and demonstrate how strategic business models can be used in a given scenario, to identify factors that a business can consider in choosing between competing strategies
- Explain international strategies; appraise international value chains and markets including the concepts of globalisation and the borderless business; and show the impact on individual and group financial statements of changes in foreign exchange rates
- Evaluate digital strategies, including the use of cloud accounting, digital assets, automation, artificial intelligence, cloud accounting and machine learning and robotic process automation

Examination context and knowledge brought forward

In Strategic analysis we focused on the strategic position elements of the rational model, including the setting of business and financial objectives, and the internal and external factors which could affect an entity's ability to achieve its objectives.

The focus of this chapter now shifts to the strategic choice section of the rational model – analysing and evaluating the strategic choices entities can make in order to help them achieve their objectives.

The models that an organisation can use to help it select strategies for competitive advantage, or to develop product and market strategies, were covered in Business Strategy& Technology at Professional Level. Porter's generic strategy model and Ansoff's product-market matrix are two key business strategy models which you should already be familiar with from your previous studies.

However, at Advanced Level you will need to apply the models to complex scenarios in order to propose appropriate strategies for an organisation, or to evaluate alternative strategies an organisation is considering.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Strategic choice** An entity's ability to achieve its goals and objectives will be influenced by the strategic choices it makes – what products or services to sell; where to sell them; how to achieve competitive advantage against rivals; or how to achieve growth.	**Approach** The technical content of key models in this chapter (Porter's generic strategies; Ansoff's product/market matrix) should be familiar to you from your studies of Business Strategy and Technology. At Advanced Level you need to apply them to more complex scenarios, in order to evaluate the appropriateness of different strategies for an entity. This section starts with a summary of three key aspects of strategic decisions: how to compete, where to compete, and how to achieve growth. The answers to these questions underpin many of the strategic decisions entities make. **Stop and think** Consider the company you work for. How do they compete? How do they achieve growth?	In the examination, you may be required to assess the appropriateness of different business strategies for achieving strategic objectives, as well as recommending appropriate strategies.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Generating strategic options** Before detailed strategies and objectives can be developed, the approach to achieving competitive advantage must be established. Organisations need to agree upon their competitive basis, direction and method of growth.	**Approach** The different methods of growth (eg, organic, acquisition, joint venture, franchise) should already be familiar to you from Business Strategy and Technology, but note that in SBM&L you may be required to consider the financial reporting and assurance implications of different methods of expansion alongside the strategic choices themselves. **Stop and think** Does Porter's theory of being "stuck in the middle" hold true in reality? Can you name any successful firms that are neither a cost leader nor a differentiator?	Exam questions may require you to assess an organisation's current strategic position and recommend suitable growth strategies to achieve objectives, taking into account the business environment.	**IQ1: Generic strategies** This question requires you to apply your knowledge of Porter's generic strategies to advise a company on how to improve profitability. Ensure that you provide practical advice rather than suggesting individual generic strategies. **IQ2: Ansoff's matrix** Using Ansoff's matrix you are asked to analyse three options for strategic development and to recommend the most suitable for the organisation.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Strategic decision making** As a professional accountant you may be faced with the challenge of evaluating business cases to develop new products or enter new markets. You may also be involved in proposals relating to an acquisition, or establishing a strategic alliance. Accountants help to assess quantitative elements of investment decisions; eg potential returns, as well as reviewing whether chosen strategies fulfil non- financial objectives eg, customer satisfaction	**Approach** Section 3 highlights the criteria and techniques which can be used for evaluating strategic decisions. The SAF framework can be used to assess the advantages and disadvantages of a strategic proposal in a balanced way. **Stop and think** What factors determine whether a strategy is appropriate for an entity?	In the exam you may be asked to identify key factors that a business needs to consider when choosing between potential strategies.	**IQ3: Evaluating strategic options** Using the suitability, acceptability, feasibility framework you are asked to evaluate three strategic options discussed in the scenario.

CHAPTER 2

Topic	Practical significance	Study approach	Exam approach	Interactive questions
4	**Evaluating strategic options** In order to assess the acceptability of strategic proposals to shareholders, it is important to carry out a detailed analysis of the returns on investment and the risks inherent in a strategy.	**Approach** Section 4 highlights the criteria and techniques which can be used for evaluating strategic decisions. Note the potential importance of assurance. If a company doesn't have reliable information about a potential acquisition target, how can it make an informed decision about whether or not to make the acquisition? **Stop and think** When profitability is not the principal objective, how can the acceptability of a strategy be evaluated?	In the exam you may be asked to analyse financial and non-financial data, including big data, in order to select an optimal business strategy.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
5	**International strategies** Growth and expansion can often involve an international element, and such expansion also involves a number of key decisions: should a business export to customers in foreign countries, or should it establish operations in a foreign country? If so, which country? And should it look to expand alone or through some kind of alliance with a local partner? As with any business decision, the potential rewards from international expansion also need to be considered alongside the risks involved in it.	**Approach** Section 5 considers the issues relating to international expansion and globalisation: the reasons for expanding internationally; the ways of doing so; the potential risks involved; and the financial reporting implications. (Also note the potential links to issues around global vs local marketing, which are covered in later chapters.) **Stop and think** What are the potential benefits and risks from entering new (international) markets?	Exam questions may require you to explain the possible strategies for international growth or expansion an entity could choose. You may also need to appraise an entity's plans for international expansion and consider the potential impact of those plans on the entity's value chain and its financial statements.	**IQ4: Growth strategies** In this task you are asked to identify four possible market entry strategies for the company in the scenario. The question requires you to justify your recommendations with reference to the scenario. **IQ5: Exchange differences** This short question examines how exchange rate differences should be recorded in the financial statements
6	**Digital strategies** An increasingly important consideration for modern businesses is how digital strategies could help them grow. It is important that organisations can identify the potential opportunities that 'digital' affords them, but also to be	**Approach** This section looks at another potential way for organisations to develop new capabilities – through the application of digital strategies. Remember that as well as providing opportunities to interact with customers in new	An exam question may ask you to evaluate the extent to which strategies, including digital strategies, can help an entity achieve sustainable competitive advantage.	

CHAPTER 2

Topic	Practical significance	Study approach	Exam approach	Interactive questions
	aware that digital disruption could lead to new competitors emerging, and the resulting impact this could have on industry structures.	ways, or to offer new products, 'digitisation' can also present a threat to the existing companies and industries – for example, by enabling new entrants to disrupt existing markets. When thinking about technological developments your focus for the SBM & L exam shouldn't be primarily on the detail of the technologies themselves, but the impact technology and digitisation could have on organisations and their business strategies. **Stop and think** To what extent can digital disruption of the travel industry be seen as an opportunity rather than a threat to existing companies?		

Once you have worked through this guidance you are ready to attempt the further question practiceincluded at the end of this chapter.

1 Strategic choices

Section overview

once an organisation has assessed its current strategic position, it needs to make choices about what strategies to pursue in order to achieve its goals and objectives.

1.1 Categories of strategic choice

Once an organisation has identified the opportunities and threats in its external environment and its internal strengths and weaknesses, it must make choices about what strategies to pursue in order to achieve its goals and objectives.

It is possible to classify strategic choice into three categories:

(a) Competitive strategies are the strategies an organisation will pursue for competitive advantage. They determine how an organisation competes.

(b) Product-market strategies determine where an organisation competes and the direction of growth.

(c) Institutional strategies determine the method of growth, and how an organisation gains access to its chosen products and markets.

2 Generating strategic options

Section overview

- Before business unit strategies and objectives can be formulated, the overall approach to building and sustaining overall competitive advantage must be agreed. In this regard, a decision over whether to pursue a cost or differentiation themed strategy must be made.
- Aside from the overall generic strategy, decisions will also need to be made on the direction and methods of growth.

2.1 Porter's generic strategies

In any market where there are competitors, strategic and marketing decisions will often be taken inorder to provide an organisation with a competitive advantage over its competitors.

Definition

Competitive advantage: How a firm creates value for its buyers which is both greater than the cost of creating it and superior to that of rival firms.

Porter argues that a firm should adopt a competitive strategy that is intended to achieve some form of competitive advantage for the firm. A firm that possesses a **competitive advantage** will be able to make profit exceeding its cost of capital: in terms of economic theory, this is '**excess profit**' or '**economic rent**'. The existence of excess profit tends to be temporary because of the effect of the five **competitive forces** (Porter's five forces). When a company can continue to earn excess profit despite the effects of competition, it possesses a **sustainable competitive advantage**.

Porter highlighted that competitive strategy aims to establish a profitable and sustainable position against the forces that determine industry competition. As such, competitive strategy involves:

> "taking offensive or defensive actions to create a defendable position in an industry, to cope successfully with ... competitive forces and thereby yield a superior return on investment for thefirm. Firms have discovered many different approaches to this end, and the best strategy for a given firm is ultimately a unique construction reflecting [the firm's] particular circumstances." (Porter, 1980)

The choice of competitive strategy

Porter suggests there are three **generic strategies** for competitive advantage. To be successful, Porter argues, a company must follow only one of the strategies. If they try to combine more than one, they risk losing their competitive advantage and becoming '**stuck in the middle**'.

Remember that Porter identified the importance of **cost** leadership (not price leadership) as one of the generic strategies. Although companies which are pursuing a cost leadership strategy might then choose to compete on price, the focus of Porter's model is on how companies can **produce** goods or services at a lower cost than their rivals, rather than selling price per se.

Context example: BHS – Stuck in the middle?

The collapse of the retailer BHS in 2016 was the largest failure on the UK high street since that of Woolworths in 2008. BHS employed 11,000 people.

The company had unsustainably high levels of debt, which was one of the reasons which led to its failure. However, its strategic positioning was perhaps an even more significant factor in its failure.

Customers could get lower prices on products elsewhere, and could find better perceived value from other department store brands. As such, BHS was not competing effectively on either price, or brand, leaving it stuck in the middle.

When it closed, a retail analyst noted that BHS was a firm that was out of step with modern consumer tastes, which lacked the finances to enact the major changes required.

Based on: Financial Times (2016) *BHS goes into administration after sale talks fail*, [Online] Available from: https://www.ft.com/content/3f83c690-0aad-11e6-b0f1-61f222853ff3 [Accessed 6 August 2018]

2.1.1 Cost leadership

A cost leadership strategy seeks to achieve the position of lowest-cost producer in the **industry as a whole**.

By producing at the **lowest cost**, the manufacturer could either charge the same price as its competitors knowing that this would enable it to generate a greater profit per unit than them, or it could decide to charge a lower price than them. This could be particularly beneficial if the goods or services which the organisation sells are price sensitive.

How to achieve overall cost leadership:

- set up production facilities to obtain economies of scale
- use technology and high-tech systems to reduce costs and/or enhance productivity

(Supply chain management and business process re-engineering, which can both be used to help achieve cost leadership, are discussed in the chapter Strategic implementation. Also, firms could use automation (discussed in the chapter Strategic analysis) as a means of reducing process costs.)

- minimise overhead costs
- get favourable access to sources of supply and buy in bulk wherever possible (to obtain discounts for bulk purchases)
- product relatively standardised products
- relocate to cheaper areas (possibly in a different country)

Strategy and internal capabilities

Value chain analysis, which we looked at in the previous chapter, could also be useful when considering which generic strategy to pursue. For example, if a business unit wishes to pursue a cost leadership strategy, it will need to ensure that its costs are as low as possible across all the different activities in its value chain (for example, by automating as many activities as possible).

Benchmarking could also be important here. If a company is pursuing a cost leadership strategy, it will need to benchmark its costs or processes against competitors to assess its cost efficiency compared to theirs.

2.1.2 Differentiation

A differentiation strategy assumes that competitive advantage can be gained through **particular characteristics** of a firm's products. Products may be divided into three categories.

(a) Breakthrough products offer a radical performance advantage over competition, perhaps at a drastically lower price.
(b) Improved products are not radically different from their competition but are obviously superior in terms of better performance at a competitive price.
(c) Competitive products derive their appeal from a particular compromise of cost and performance. For example, cars are not all sold at rock-bottom prices, nor do they all provide immaculate comfort and performance. They compete with each other by trying to offer a more attractive compromise than rival models.
(d) Sustainable products appeal to customers who are more concerned about sustainability. Products which cause less harm to the environment (eg, eco-friendly washing powders) or are produced using sustainable methods (eg, organic fruit and vegetables) are examples of these.

How to differentiate

(a) Build up a brand image (eg, Pepsi's blue cans are supposed to offer different 'psychic benefits' to Coke's red ones)
(b) Give the product special features to make it stand out (eg, Mercedes fingerprint recognition security system on its cars)
(c) Exploit other activities of the value chain (eg, quality of after-sales service and speed of delivery)

We looked at the value chain in the chapter Strategic analysis. If you cannot remember the activities described in the value chain, you should refer back to it to refresh your memory.

Context example: Apple

In the chapter Strategic analysis, we looked at the case example of Apple in relation to Porter's Five Forces, and noted the importance of innovation in Apple's competitive success.

Its high rate of innovation, coupled with emphasis on excellence in product design, has enabled Apple to be successful, despite the relatively high selling prices of its products. As such, Apple has successfully applied a differentiation strategy.

Apple's strategy reflects the fact that the company believes that the connectivity of its products, and the cutting-edge aesthetics in their design will differentiate its products from competitors' products. Despite this, Apple's products are designed for a broad market reach (from 'consumer' products such as iPhone to 'business' products such as MacBook), meaning the company's strategy is one of broad differentiation, rather than focused differentiation.

Equally, however, this generic strategy has important implications for Apple's objectives and business model. In order to apply its strategy effectively, the company must continually emphasise innovation (through research and development) to ensure its products keep ahead of its competitors' products.

2.1.3 Focus (or niche) strategy

In a focus strategy, a firm concentrates its attention on one or more particular segments or niches of the market, and does not try to serve the entire market with a single product. For example, a firm could look to establish a niche based on: location, market segment and consumer type, product quality or product features.

Information technology (IT) can be useful in establishing the exact determining characteristics of the chosen niche, using existing customer records.

(a) A cost-focus strategy: aim to be a cost leader for a particular segment. This type of strategy is often found in the printing, clothes manufacture and car repair industries.

(b) A differentiation-focus strategy: pursue differentiation for a chosen segment. Luxury goods suppliers often employ this kind of strategy.

(We will look at market segmentation and positioning in more detail in the chapter Strategic marketing and brand management.)

Context example: Tyrrells crisps

The crisp manufacturer, Tyrrells, has successfully implemented a focus differentiation strategy, by seizing an opportunity to produce better-quality potato chips than those traditionally found in the supermarkets. Tyrrells has targeted its chips at a market segment that would be prepared to pay a higher price for good quality produce.

Initially, one of the features of Tyrrells' strategy was to sell mainly through small retailers at the upper end of the grocery and catering markets – thereby avoiding direct competition with the market leader (Walkers crisps). However, following its acquisition by a private equity fund, Tyrrells crisps are now a fixture on most supermarket shelves in the UK, and the business now has ambitions to expand internationally.

Nonetheless, Tyrrells still differentiates itself by cooking its potato chips by hand using the finest home-grown potatoes. All the chips are produced on the farm where the potatoes have been grown, so Tyrrells are in total control of the process 'from seed to chip'. (The company was set up by a potato farmer, who saw crisp production as a way to add extra value to his basic product, potatoes.) This 'local-first' approach is a unique selling point for Tyrrells, supplemented by its production process – with the skin left on the potatoes, and the potatoes cooked in small batches.

(a) Branding. Tyrrells' marketing taps into the public's enthusiasm for 'authenticity' and 'provenance', and the packets emphasise the product as being 'hand-cooked English crisps'.

(b) Quality. Tyrrells' chips are made from traditional varieties of potato and 'hand-fried' in small batches.

(c) New product development. The Tyrrells' product portfolio consists of 15potato chip varieties, and three varieties of 'furrowed' (crinkle cut) crisps. However, in addition to potato chips, they now also produce a range of vegetable crisps – including beetroot, parsnip and sweet potato.

2.1.4 Using the generic strategies

Porter's three generic strategies can help managers in their strategic planning in a number of different ways.

(a) Encourage them to analyse competitors' positions. For example, firms that are competing as cost leaders will need to analyse rivals' cost structures and value chains to identify if there are any areas where cost savings can be made. By contrast, firms that want to pursue differentiation strategies should undertake market research information to get an understanding of brand perceptions in the market.

(b) Choose a competitive strategy. This is the key point behind Porter's model: to be successful, a firm needs to follow one of the generic strategies.

(c) Analyse the risks of their present strategy. Porter identifies that each generic strategy has some inherent risks. For example:

Differentiation

(a) The brand loyalty underpinning differentiation may fall if the cost between the price of the 'differentiated' product and cost-leading products becomes too great.

(b) Buyers may value the differentiating factor less, and so may become more willing to buy generic products instead of differentiated products.

Cost leadership

(a) Technological change could mean that existing low-cost technology becomes superseded by newer, cheaper technology.

(b) Inflation or exchange rates may destroy cost advantages.

Focus

(a) The distinctions between segments narrow so that individual segments are no longer clearly identifiable.

(b) Segment collapses and leaves the firm with no other source of earnings.

(c) The value of Porter's model in reminding managers they need to focus on these threats and risks, and develop strategies to deal with them and to maintain their competitive advantage.

Interactive question 1: Generic strategies

BMK is a small restaurant chain, consisting of eight restaurants, in an attractive part of a European country that is popular with tourists. BMK has been owned by the same family for the previous 15 years and has always traded at a profit. However, a number of factors have meant that BMK is now in danger of making a trading loss. There has been a substantial drop in the number of tourists visiting the region while, at the same time, the prices of many of the foodstuffs and drinks used in its restaurants has increased. Added to this, the local economy has shrunk, with several large employers reducing the size of their workforce.

The owners of BMK commissioned a restaurant consultant to give them an independent view of their business. The consultant observed that the eight restaurants were all very different in appearance.

They also served menus that were very different; for example, one restaurant which was located on a barge in a coastal town specialised in fish dishes, whereas another restaurant 20 miles away had a good reputation as a steak house. The prices varied greatly among the restaurants: one restaurant in a historic country house offered 'fine dining' and was extremely expensive; yet another located near a busy railway station served mainly fast food and claimed that its prices were 'the cheapest in town'. Three of BMK's restaurants offered a 'middle of the road' dining experience with conventional menus and average prices. Some of the restaurants had licences that enabled them to serve alcohol with their meals but three restaurants did not have such licences. One restaurant had a good trade in children's birthday parties, whereas the restaurant in the historic country house did not admit diners under the age of 18.

The consultant recommended that BMK should examine these differences but did not suggest how. The owners responded that the chain had grown organically over a number of years and that the location, style and pricing decisions made in each restaurant had all been made at different times and depended on trends current at that time.

Requirement

Advise the owners of BMK on how the application of Porter's generic strategies model could assist them in maintaining or improving the profitability of their restaurants.

Note: You are not required to suggest individual generic strategies for each of BMK's restaurants. See **Answer** at the end of this chapter.

2.1.5 Limitations of Porter's model

In practice, it is rarely simple to draw hard and fast distinctions between the generic strategies, as there are conceptual problems underlying them.

(a) Problems with cost leadership

(1) Internal focus. Cost refers to internal measures, rather than the market demand. It can be used to gain market share, but it is the market share that is important, not cost leadership as such. Economies of scale are an effective way to achieve low costs, but they depend on high volumes. In turn, high volumes may depend on low prices which, in turn, require low costs. There is a circular argument here.

(2) Only one firm. If cost leadership applies across the whole industry, only one firm will pursue this strategy successfully. However, more than one firm might aspire to cost leadership, especially in dynamic markets where new technologies are frequently introduced. Firms competing across the industry as a whole might have different competences or advantages that confer cost leadership in different segments.

(3) Sustainability of competitive advantage. Even if a company manages to reduce costs below those of its competitors in the short term, it is debatable whether this will enable it to achieve a sustainable competitive advantage. Unless the company has an inherent cost advantage over its competitors, they respond to a company becoming the cost leader by trying to reduce their own costs.

(4) Higher margins can be used for differentiation. Having low costs does not mean you have to charge lower prices or compete on price. A cost leader can choose to 'invest higher margins in R&D or marketing'. Being a cost leader arguably gives producers more freedom to choose other competitive strategies.

There is often confusion about what cost leadership actually means. In particular, cost leadership is often assumed to also mean low price. However, '**cost leadership**' and '**low price**' **are not necessarily the same thing**.

(b) Problems with differentiation. Porter assumes that a differentiated product will always be sold at a higher price.

(1) However, a differentiated product may be sold at the same price as competing products in order to increase market share.

(2) Choice of competitor. Differentiation from whom? Who are the competitors? Do they serve other market segments? Do they compete on the same basis?

(3) Source of differentiation. This includes all aspects of the firm's offer, not only the product. For example, restaurants try to distinguish themselves from their competitors through their ambience and the quality of their service as well as by serving high-quality food.

Focus probably has fewer conceptual difficulties, as it ties in very neatly with ideas of market segmentation. In practice, most companies pursue this strategy to some extent, by designing products/services to meet the needs of particular target markets.

'Stuck in the middle' is therefore what many companies actually pursue quite successfully. Any number of strategies can be pursued, with different approaches to **price** and the **perceived added value** (ie, the differentiation factor) in the eyes of the customer.

In this way, Porter's model no longer reflects the full range of competitive strategies an organisation can choose from.

2.2 Bowman's strategy clock

The idea that firms can successfully pursue a number of strategies based on price and perceived added value has led to a reassessment of Porter's original arguments. Moreover, the emphasis on **price** and **added value** recognises the importance of the customer – in a competitive situation, rational customers will seek **value for money** in their purchases, and value for money is provided through the combination of **price** and **perceived product/service benefits**.

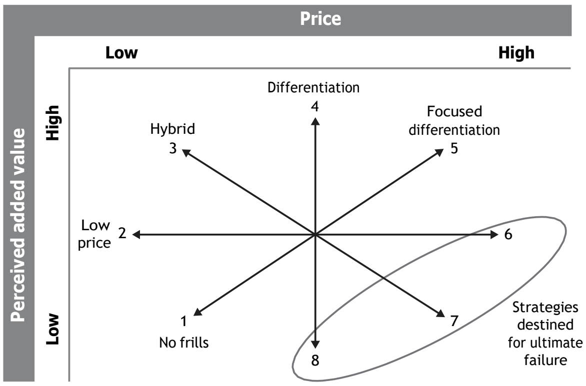
To this end, it is worth considering Bowman's strategy clock as a successor to Porter's generic strategies. The strategy clock identifies eight different strategies a firm can take in terms of price and adding value.

The eight strategies on the clock represent different approaches to creating value for the customer, with the logic being that each customer will buy from the provider whose offering most closely matches their own view of the proper relationship between price and perceived benefits.

Each position on the clock has its own **critical success factor**, since each strategy is defined in market terms. Positions 1 and 2 will attract customers who are price conscious above all, with position 2 giving a little more emphasis to serviceability. These are typical approaches in commodity markets. By contrast, strategies 4 and 5 are relevant to consumers who require a customised product. For example, professional service firms have often used these strategies as a basis for competition.

The Strategy Clock

Figure 2.1: Bowman's strategy clock



A firm pursuing a **hybrid strategy** (position 3) seeks both differentiation and a lower price than its competitors. Such a strategy can be advantageous when a firm seeks to differentiate on the basis of its core competences, but then seeks to reduce costs elsewhere. For example, Ikea builds differentiation on the basis of its product range and design logistics, store operations and marketing, but can save costs because customers are prepared to transport and build their products themselves.

If a firm wants to pursue a differentiation strategy, it will need detailed and accurate market intelligence about strategic customers, and the key competitors. The strategic customers and their preferences and values must be clearly identified, as must the firm's competitors and their likely responses to its strategy.

The chosen basis for differentiation, which will probably need to be developed over time, should be inherently difficult to imitate so that it gives the firm a basis for a sustainable competitive advantage.

One way a firm can create sustainable advantage is by creating strategic lock-in (establishing its product or service as the industry standards, like Microsoft Windows has done for computer operating systems).

However, a differentiation strategy can still be vulnerable to price-based competition. There may be occasions when differentiation is not sufficient to affect customers' purchasing decisions in the face of lower prices. For example, following the economic down turn that affected Western economies in 2008and 2009, a number of customers have changed their shopping patterns from branded goods to own-label goods in an effort to curtail their spending. (Interestingly, this example also illustrates why a hybrid strategy can be so effective: allowing firms to offer superior products at lower prices than competitors.)

Failure strategies

Combinations 6, 7 and 8 on the strategy clock are likely to result in failure. A strategy which does not provide customers with perceived value for money – either with respect to product features, or price, or both – is likely to be unsuccessful, and therefore to be a failure strategy.

Professional skills focus: Assimilating and using information

An organisation may have a variety of strategic options available to it. Your task is to understand and review the business context in order to recommend the most appropriate approach. Porter's generic strategies and Bowman's strategy clock theories provide you with a range of potential options but you must be able to justify your recommendation with reference to the scenario. Also be aware of the practical limitations of implementing your chosen strategic approach.

2.3 Overall limitations of the generic strategy approach

Problems in defining the 'industry'– Porter's model depends on clear notions of what the **industry** and firm in question are, in order to establish how competitive advantage derives from a firm's position in its industry. However, identifying the industry and the firm may not be clear, since many companies are part of larger organisations, and many 'industries' have boundaries that are hard to define. For example, what industry is a car manufacturer in? Cars, automotive (cars, lorries, buses), manufacturing, transportation?

Defining the strategic unit – As well as having difficulties in defining the industry, we can have difficulties in determining whether strategies should be pursued at **strategic business unit (SBU)** or **corporate level**, and in relation to exactly which category of products. For example, Procter & Gamble have a huge range of products and brands: are they to follow the same strategy with all of them?

Similarly, the Volkswagen-Audi Group owns the Seat, Audi, Bentley and Skoda car marques.

Porter's theory states that if a firm has more than one competitive strategy, this will dilute its competitive advantage. But does this mean that Volkswagen-Audi's strategy for its Skoda brand needs to be the same as for its Bentley brand? Clearly not, and this is a major problem with Porter's theory.

It is impractical to suggest that a whole group should follow a single competitive strategy and so it seems more appropriate to suggest that the model should be applied at business unit level. Yet if the theory is only applied at individual SBU level, then it could lead managers to overlook sources of competitive advantage which emerge from being part of a larger group – for example, economies of scale in procurement.

Another criticism which is sometimes levelled at Porter's model is that it does not look at how firms might use their competitive advantages and distinctive competences to **expand into new industries**, perhaps as the result of creative innovation. Porter only looks at how a firm might use its resources to develop strategy in its existing line of business. However, we could argue that this criticism is not really valid. Although Porter does not talk about expansion into new industries, his model does not preclude it, and his arguments about following a competitive strategy would still ultimately need to be applied in the new industry.

2.3.1 Assurance and generic strategies

In our discussion of cost leadership strategies (above) we noted that if an entity is pursuing a cost leadership strategy, it will need to bench mark its costs or processes against competitors to assess its cost efficiency compared to theirs.

Equally, however, if an entity is intending to pursue a differentiation strategy based, for example, on the quality of its product or the quality of service it provides to customers, it will need some way of assessing the quality of its product or service compared to the quality of the offering provided by its competitors.

In this respect, **benchmarking** could again be valuable, but equally, it could be useful for the entity to obtain some independent assurance of its quality performance indicators compared to those of its competitors.

In turn, if the entity can be confident that the quality of its product exceeds that of its competitors, then it can make use of this point of differentiation in its marketing material.

The *Assurance Sourcebook* published by the ICAEW Audit and Assurance Faculty includes the following short vignette to illustrate how assurance could be used in relation to benchmarking and performance indicators:

"A company wanted assurance to increase the credibility of the claims it was making about its performance relative to competitors. The company was using KPI data to benchmark its performance against other companies in the industry. The assurance set out criteria to regulate the methodology used for calculating the KPIs, and ensured that the KPIs were based on independently collated data."

2.4 Product-market matrix

The product-market matrix is a shorthand term for the **products/services** a firm sells (or a service which a public sector organisation provides) and the **markets** it sells them to.

Ansoff's **growth vector (product-market) matrix** provides a simple way of describing how a combination of a firm's activities in existing and new markets, together with existing and new products/services, can lead to **growth**.

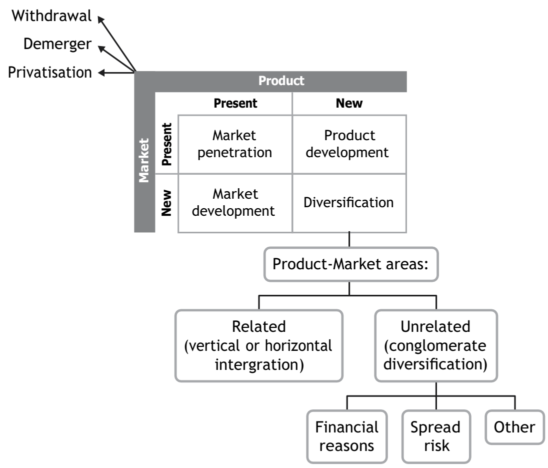
The resulting strategies depend on whether the firm looks to continue in its existing markets or expand into new markets, and whether it continues to offer its existing products/services, or to introduce new ones.

Figure 2.2: Ansoff's product-market matrix

		Product	Product
		Present	**New**
Market	**Present**	Market penetration	Product development
	New	Market development	Diversification • related • unrelated

Lynch has produced an enhanced model that he calls the **market options matrix**. This adds the external options shown in this second diagram.

Figure 2.3: Lynch – Market options matrix



However, as well as noting the different types of strategies identified in Ansoff's matrix, it is important to note an underlying point behind any of the strategies – that an organisation needs to develop product-market strategies to help close a profit gap identified through **gap analysis**.

A related question is what to do with spare capacity – go for market penetration, or try to expand into new markets. Many companies begin exporting into new overseas markets to use surplus capacity.

The strategies in the Ansoff matrix are not mutually exclusive, though. A firm can quite legitimately pursue a market penetration strategy in some of its markets, while aiming to enter new markets.

Remember that **divestment** can also be a product-market option to close the profit gap, if the business being divested is creating losses.

Another important point to note in relation to the matrix is the different levels of risk attached to the different strategies. Market penetration is seen as being the lowest risk strategy, while diversification involves the highest risk. In this way, it is likely that the **risk appetite** of an organisation will play an important part in determining the organisation's growth strategy.

Since diversification is the highest risk strategy, it is particularly important for a company to have a clear idea of what it expects to gain from diversifying, before deciding to do so:

(a) Growth. New products and new markets should be selected which offer prospects for growth which the existing product-market mix does not.

(b) Investing surplus funds not required for other expansion needs. Alternatively, however, these funds could be returned to shareholders, so the company needs to consider which course of action will be more acceptable to its shareholders.

Interactive question 2: Ansoff's matrix

Sleepway Hotels ('Sleepway') is a family-run business that operates a small chain of nine five-star luxury hotels worldwide. These are located in major cities in the US, Europe, East Asia and Australia, catering for a mix of business and private customers. The past few years have been difficult for the hotel's business due to the depressed global economy, and profit margins have been low due to relatively low occupancy rates.

The company has pursued a long-term strategy of slow growth, opening a new hotel in a city when a suitable opportunity arises. It is now four years since Sleepway opened a hotel, and the CEO believes that an opportunity exists for the company to seek a faster rate of growth. The business has large cash resources, and there are opportunities to borrow for investment at low rates of interest.

The CEO has asked the board to consider three strategic options:

(1) Opening three new luxury hotels, one in East Asia and two in the US. Properties have been identified that would be available for purchase.

(2) Opening a small chain of four or five three-star hotels, in cities where the company already has luxury hotels, to attract customers who are increasingly looking for cheaper accommodation than five-star hotels.

(3) Opening two golf and country clubs in Eastern Asia, where economic growth is still strong and demand for recreational facilities is rising, especially among wealthy individuals.

It is estimated that the time required to implement each of these strategies might be two to three years. By this time, the CEO believes that global economic conditions will have improved and demand for hotel accommodation will be on the increase.

The CEO is the grandson of the founder of Sleepway, and took on the role of CEO about one year ago, when his father retired. His father remains as a non-executive director of the company.

Requirement

Analyse the three options for strategic development in terms of Ansoff's product-market development strategies. Indicate (with brief reasons) which option, if any, you would recommend on the basis of the information available.

See **Answer** at the end of this chapter.

Professional skills focus: Structuring problems and solutions

Models such as Ansoff's growth vector matrix and Lynch's expansion method matrix will not beawarded marks in their own right. However, models can be useful to frame your answer and tostructure your analysis of potential business strategies in a logical and concise manner.

2.5 Method of growth

Once a firm has made its choice about which strategies it wants to pursue, it needs to choose an appropriate **mechanism** to deliver that strategy.

- develop the business from scratch
- acquire or merge with an already existing business
- cooperate in some way with another firm

The main issues involved in choosing a method of growth are these.

(a) Resources. Does a firm have enough resources and competences to go it alone, or does it have plenty of resources to invest?

(b) Skills. Two different businesses might have complementary skills.

(c) Speed. Does a firm need to move fast?

(d) Control. A firm might wish to retain control of a product or process.

(e) Cultural fit. Combining businesses involves integrating people and organisation culture.

(f) Risk. A firm may either increase or reduce the level of risk to which it is subject. External growth often involves more risk than organic (internal) growth.

The type of relationships between two or more firms can display differing degrees of intensity.

- Formal integration: acquisition and merger
- Formalised ownership/relationship, such as a joint venture
- Contractual relationships, such as franchising

2.5.1 Expansion method matrix

Lynch summarised possible expansion methods in a matrix that analysed them on two axes: **internal-external** development, and **home country-international** location.

(a) Internal development in the home country is simply organic growth.

(b) Internal development internationally:

(1) exporting

(2) overseas office

(3) overseas manufacture

(4) multinational operation

(5) global operation

(c) External development in the home country or internationally:

(1) merger

(2) acquisition

(3) joint venture or alliance

(4) franchising or licensing

Figure 2.4: Lynch – Expansion method matrix

		Company	
		Inside	**Outside**
Location	**Home country**	Organic growth	Merger Acquisition Joint venture Alliance Franchise Licence
	International	Exporting Overseas office Overseas manufacture Multi-national operation Global operation	Merger Acquisition Joint venture Alliance Franchise Licence Contract manufacturing

2.6 Organic growth

Organic growth (sometimes referred to as **internal development**) is the primary method of growthfor many organisations, for a number of reasons. Organic growth is achieved through the development of internal resources.

2.6.1 Reasons for pursuing organic growth

(a) Learning. The process of developing a new product gives the firm the best understanding of the market and the product.

(b) Innovation. It might be the only sensible way to pursue genuine technological innovations, and exploit them. (For example, compact disc technology was developed by Philips and Sony, who earn royalties from other manufacturers licensed to use it.)

(c) There is no suitable target for acquisition.

(d) Organic growth can be planned more meticulously and offers little disruption.

(e) It is often more convenient for managers, as organic growth can be financed easily from the company's current cash flows, without having to raise extra money.

2.6.2 Problems with organic growth

(a) Time – Sometimes it takes a long time to descend a learning curve.

(b) Barriers to entry (eg, distribution networks) are harder to overcome: for example, a brand image may be built up from scratch.

(c) The firm will have to acquire the resources independently.

(d) Organic growth may be too slow for the dynamics of the market.

Organic growth is probably ideal for market penetration, and suitable for product or market development, but it might be a problem with extensive diversification projects.

2.7 Acquisitions and mergers

Definitions

An acquisition: The purchase of a controlling interest in another company.

A merger: The joining of two separate companies to form a single company.

2.7.1 The purpose of acquisitions and their effect on operations

(a) Marketing advantages

(1) Buy in a new (or extended) product range

(2) Buy a market presence (especially true if acquiring a company overseas). Acquisitions can help to avoid barriers to entry. If there are significant barriers to entry in a market (or if there is already intense competitive rivalry) it might not be possible for a new entrant to join the market in its own right. However, acquiring an existing player in the market would enable a group to enter the market.

(3) Unify sales departments or rationalise distribution and advertising

(4) Eliminate competition or protect an existing market

(5) Combine adjoining markets

(b) Production advantages

(1) Economies of scale; increasing capacity utilisation of production facilities

(2) Buy in technology and skills. If an acquisition as a means of diversifying into new product areas, the company will be buying technical expertise, as well as customer contacts in that area.

(3) Obtain greater production capacity

(4) Safeguard future supplies of raw materials

(5) Improve purchasing by buying in bulk

(c) Finance and management

(1) Buy a high-quality management team, which exists in the acquired company

(2) Obtain cash resources where the acquired company is very liquid

(3) Obtain assets, including intellectual property

(4) Gain under valued assets or surplus assets that can be sold off

(5) Turnaround opportunities

(6) Obtain tax advantages (eg, purchase of a tax loss company)

(d) Risk spreading – diversification

(e) Independence. A company threatened by a takeover might take over another company, just to make itself bigger and so a more expensive target for the predator company.

Many acquisitions **do** have a logic, and the **acquired company can be improved** with the extra resources and better management.

One of the major reasons for making an acquisition rather than growing organically is the speed of growth. Acquisitions can be made to enter new product or geographical markets, or to expand in existing markets, much more quickly than via organic growth.

Furthermore, much of the criticism of **takeovers** has been directed more against the notion of **conglomerate diversification** as a strategy rather than takeover as a **method of growth**.

2.7.2 Problems with acquisitions and mergers

(a) Cost. They might be too expensive, especially if resisted by the directors of the target company. Proposed acquisitions might be referred to the Government under the terms of anti-monopoly legislation.

(b) Valuation issues. The management of the target company are likely to know more about its true value than the acquiring company, and so it could be difficult to arrive at a fair price for the sale. More generally, commentators have suggested that the 'acquisitions' market for companies is rarely efficient. This means that companies making an acquisition do not have perfect information about the company they are acquiring. This could mean that the price they pay for the acquisition is too high and/or the future value the company brings to the group is lower than they had anticipated.

(c) Post-acquisition costs. In addition to the initial purchase costs, there could also be significant costs involved in integrating the acquired company's systems (production systems; IT systems etc) with those of the parent company.

(d) Customers of the target company might resent a sudden takeover and consider going to other suppliers for their goods.

(e) Incompatibility. In general, the problems of assimilating new products, customers, suppliers, markets, employees and different systems of operating might create 'indigestion' and management overload in the acquiring company. (i) In 2011, UK supermarket Morrisons acquired the fast-growing US online retailer Kiddicare for £70 million. Morrisons was worried about its lack of online presence and experience in running an online business, and hoped that Kiddicare would give it a cut-price entry into online retailing. However, Kiddicare (which sells baby goods) had no grocery-related software. In March 2014, Morrisons sold Kiddicare for £2 million, after admitting it did not have a strategic role in Morrison's core business.

(f) Culture. Culture is one of the main barriers to effective integration following an acquisition. Companies with different cultures find it difficult to make decisions quickly and correctly, and to operate effectively. Culture affects decision-making style, leadership style, ability and willingness to change, and how people work together (eg, formal structures and informal relationships). One of the main reasons why acquisitions and mergers fail is because of the lack of 'fit' between the two companies.

(g) Poor success record of acquisitions. Takeovers often benefit the shareholders of the acquired company more than the acquirer. According to the Economist Intelligence Unit, there is a consensus that fewer than half of all acquisitions are successful.

(h) Driven by the personal goals of the acquiring company's managers, as a form of sport, perhaps, rather than as a result of underlying business benefits.

(i) Public opinion and reaction. For example, the value produced from foreign takeovers of UK companies came under intense scrutiny amid public anger of Kraft's acquisition of Cadbury in 2010, and Kraft reversing its pledge to keep open a Cadbury plant at Somerdale, near Bristol.

(Kraft's acquisition of Cadbury prompted a tightening of the rules governing how foreign firms buy UK companies. A number of changes were made to the Takeover Code in 2011, demanding more information from bidders about their intentions for the target company post-acquisition, particularly on areas like job cuts.)

2.8 Joint ventures

There are a number of other ways in which companies can cooperate, but which stop short of being mergers or takeovers.

(a) Consortia. Organisations cooperate on specific business areas such as purchasing and research.

(b) Joint ventures. Two firms (or more) join forces for manufacturing, financial and marketing purposes and each has a share in both the equity and the management of the business.

   (1) Share costs. As the capital outlay is shared, joint ventures are especially attractive to smaller or risk-averse firms, or where very expensive new technologies are being researched and developed (such as in the civil aerospace or petrochemical industries).

   Finding the right joint venture partner could be very important to companies with funding constraints but high development costs, especially if the venture partner brings credibility as well as providing the necessary finance.

   (2) Reduce risk. As well as sharing costs, sharing risk is also a common reason to form a joint venture. Again, this could be particularly relevant to capital-intensive industries, or industries where high costs of product development increase the risk of product failure.

   A joint venture can reduce the risk of government intervention if a local firm is involved. In a number of countries, joint ventures with host governments or State-owned enterprises have also become increasingly important.

   (3) Participating enterprises benefit from all sources of profit.

   (4) Close control over marketing and other operations.

   (5) Overseas joint ventures provide local knowledge, quickly.

   (6) Synergies. One firm's production expertise can be supplemented by the other's marketing and distribution facility.

Note: Note that joint ventures are one of two kinds of **joint arrangement** as defined in IFRS 11, *Joint Arrangements* (see section 2.8.2), the other being the looser arrangements known as joint operations.

(c) A licensing agreement is a commercial contract whereby the licenser gives something of value to the licensee in exchange for certain performances and payments.

(1) The licenser may provide rights to produce a patented product or to use a patented process or trademark as well as advice and assistance on marketing and technical issues.

(2) The licenser receives a **royalty.**

(d) **Subcontracting** is also a type of alliance. Cooperative arrangements also feature in supply chain management, just-in-time and quality programmes.

Context example: Volvo-Uber venture

In 2016 Volvo Cars, the Swedish car manufacturer, and Uber, the ride-sharing and delivery company, announced plans for a joint project to develop next generation autonomous driving cars.

The two companies signed an agreement to enter a $300 million joint project to develop autonomous driving vehicles.

The race to develop driverless (autonomous) cars is a major strategic issue in the vehicle industry, and the Volvo–Uber agreement is one of a number of collaborations between traditional car makers and technology businesses, designed to accelerate the development of self-driving technology, and illustrating the way the global automotive industry is evolving in response to the emergence of new technologies.

At the same time, taxi services, like Uber, see autonomous vehicles as a crucial way to cut their operating costs by removing the need for human drivers.

The Volvo–Uber collaboration allows the businesses to combine their resources with the aim of capitalising on each other's strengths. Volvo will provide XC90 SUVs to Uber, which in turn will install its autonomous driving systems to the basic vehicle.

The partnership covers hardware and software developments, aimed at addressing key issues around autonomous driving, particularly safety and security.

However, the deal does not stop either company (Volvo or Uber) negotiating further deals with other companies, with staff being retained by their respective companies.

Based on: Volvo (2016) *Volvo Cars and Uber join forces to develop autonomous driving cars* [Online]. Available from: https://www.media.volvocars.com/global/en-gb/media/pressreleases/194795/volvo- cars-and-uber-join-forces-to-develop-autonomous-driving-cars [Accessed 6 August 2018]

2.8.1 Disadvantages of joint ventures

(a) There may be conflicts of interest between the different parties. Equally, the venture partners may have different objectives for the joint venture – for example, if one is looking for short-term profits, while the other wants to invest in longer-term growth.

(b) Disagreements may arise over profit shares, amounts invested, the management of the joint venture, and the marketing strategy.

(c) One partner may wish to withdraw from the arrangement.

(d) There may be a temptation to neglect core competences. Acquisition of competences from partners may be possible, but alliances are unlikely to create new ones.

2.8.2 Accounting for joint arrangements

The terms of the contractual arrangement between parties to a joint arrangement are key to deciding whether the arrangement is a joint venture or a joint operation.

IFRS 11, *Joint Arrangements* details the issues that should be considered when determining the appropriate treatment.

Definitions

Joint operation: A joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities relating to the arrangement.

Joint venture: A joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

Joint control: The contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. (IFRS 11)

Under these definitions, accounting treatment is determined based on whether or not the investor has direct rights to assets and obligations for liabilities that should be recognised separately in its financial statements, rather than merely following the legal form of the joint arrangement.

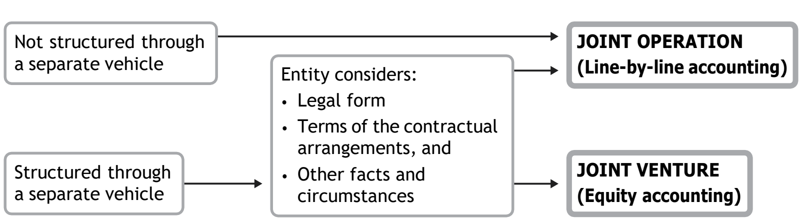
IFRS 11 requires that a joint operator recognises line by line in its own financial statements the following in relation to its interest in a joint operation:

- its assets, including its share of any jointly held assets;
- its liabilities, including its share of any jointly incurred liabilities;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

An entity may have a previously held interest in a joint operation, held as an investment. A 2017 amendment to IFRS 11 clarified that when an entity obtains joint control of a joint operation it does not re-measure any previously held interest.

However, for a **joint venture**, IFRS 11 requires that a joint venture recognises its interest in a joint venture as an investment in its consolidated financial statements, and accounts for that investment using the equity method in accordance with IAS 28, *Investments in Associates and Joint Ventures*.

Figure 2.5: Joint operations and ventures



2.9 Franchising

Franchising is a method of expanding the business on less capital than would otherwise be possible.

This is because **franchisees** not only pay a capital lump sum to the franchiser to enter the franchise, but also bear some of the running costs of the new outlets. For suitable businesses, it is an **alternative business strategy to raising extra capital** for growth. Probably the most well-known franchisers are McDonald's, but other franchisers include Dyno-Rod, Express Dairy, Holiday Inn, KallKwik Printing, Kentucky Fried Chicken, Sketchley Cleaners and The Body Shop.

The franchiser and franchisee each provide different inputs to the business.

(a) The franchiser

(1) Name, and any goodwill associated with it

(2) Systems and business methods, business strategy and managerial know-how

(3) Support services, such as advertising, training, research and development (R&D) and help with site decoration

(b) The franchisee

- (1) Capital, personal involvement and local market knowledge
- (2) Payment to the franchiser for rights and support services
- (3) Responsibility for the day-to-day running, and the ultimate profitability of the franchise

Context example: McDonald's

In its Annual Report for 2017, McDonald's states the company is primarily a franchisor, and the company 'believes franchising is paramount to delivering great-tasting food, locally-relevant customer experiences and driving profitability.'

At the end of 2017, more than 90% of McDonald's restaurants worldwide were franchised; 34,108 out of a total of 37,241.

Although the majority of McDonald's restaurants are franchised, the remainder (just under 10%) are operated by the company.

In the Annual Report, McDonald's management note:

"Directly operating McDonald's restaurants contributes significantly to our ability to act as a credible franchisor. Having Company-owned restaurants provides Company personnel with a venue for restaurant operations training experience. In addition, in our Company-owned and operated restaurants, and in collaboration with franchisees, we are able to further develop and refine operating standards, marketing concepts and product and pricing strategies that will ultimately benefit McDonald's."

McDonald's business model also enables it to deliver locally relevant restaurant experiences to its customers, within the context of being a global business.

In this regard, the Annual Report also stresses the importance of the alignment between McDonald's, its franchisees and its suppliers in achieving success, which highlights the importance of supply chain management in the health of the business. (We will look at supply chain management in more detail in chapter Strategic implementation of this Workbook.)

The Report notes that McDonald's typical franchise term is 20 years. The Company requires franchisees to meet rigorous standards, and its relationship with franchisees is designed to ensure consistency and high quality at McDonald's restaurants. Franchisees contribute to the Company's revenue through the payment of rent and royalties based on a percentage of sales (with specified minimum rent payments), in addition to initial fees paid upon the opening of a new restaurant or the grant of a new franchise. This structure enables McDonald's to generate significant levels of cash flow. Franchisees also need to purchase all food and paper products (eg, paper cups and packaging for meals) from McDonald's centrally – which provides an additional key source of revenue for McDonald's.

However, the Report also acknowledges that the franchise model presents risks for McDonald's. The Company's success relies in part on the financial success and cooperation of its franchises, yet it has limited influence over their operations. Franchisees manage their business independently, and so are responsible for the day-to-day operations of their restaurants. However, the revenues which McDonald's receives from its franchisees depend on their ability to grow their sales.

McDonald's success also depends on the willingness and ability of its franchisees to implement major initiatives (for example, marketing campaigns), while it could be negatively affected if its franchisees experience food safety or other operational problems, or if its franchisees project a brand image which is inconsistent with McDonald's overall values.

Source: McDonald's (2018) *Form 10-K, Annual Report for the* fiscal *year ended December31,2017* [Online] Available from: http://corporate.mcdonalds.com/content/dam/gwscorp/investor-relations- content/annual-reports/McDonald%27s%202017%20Annual%20Report.pdf [Accessed 6 August 2018]

2.9.1 Advantages of franchising

(a) Reduces capital requirements. Firms often franchise because they cannot readily raise the capital required to set up company-owned stores. John Y. Brown, the former president of Kentucky Fried Chicken, maintained that it would have cost KFC $450 million to establish its first 2,700 stores if it had run them as company-owned stores, and this was a sum that was not available to the corporation in the early stages of its life.

(b) Reduces managerial resources required. A firm may be able to raise the capital required for growth, but it may lack the managerial resources required to set up a network of company- owned stores. Recruiting and training managers and staff accounts for a significant percentage of the cost of growth of a firm. Under a franchise agreement, the franchisees supply the staff required for the day-to-day running of the operation.

(c) Improves return on promotional expenditure through speed of growth. A retail firm's brand and brand image are crucial to the success of its stores. Companies often develop their brand through extensive advertising and promotion, but this only translates into sales if they have a number of stores that customers can visit after seeing their advertisements.

    As franchising provides quicker access to capital and managerial resources, a firm can expand more quickly through franchising than through opening new company-owned stores. Faster expansion through franchising, in turn, should allow companies to achieve a favourable return on their promotional campaigns.

(d) Benefits of specialisation. As the franchisee and the franchiser both contribute different resources to the franchise, franchising provides an effective way of reducing costs: each party concentrates on their core areas, and increases their efficiency in those areas. For example, in the fastfood business, product development and national promotion are more efficiently handled on a large scale (by the franchiser), whereas the production of food itself is handled better on a relatively smaller scale (by the franchisee).

(e) Low head office costs. The franchiser only needs a small number of head office staff because there is a considerable delegation of operational responsibility to the franchisees. For example, in the fastfood business, the franchisees provide the staff who work in the restaurants, and so the franchisees incur the HR and payroll costs associated with that.

2.9.2 Disadvantages of franchising

(a) Profits are shared. The franchisee receives the revenue from the customer at the point of sale and then pays the franchiser a share of the profits.

(b) The search for competent candidates is both costly and time consuming where the franchiser requires many outlets (eg, McDonald's in the UK).

(c) Control over franchisees. The franchiser has to monitor its franchisees to ensure they are all offering a consistent product or service.

(d) Risk to reputation. A franchisee can damage the public perception of a brand by providing inferior goods or services.

(e) Potential for conflict. There may be disagreement over the respective rights and obligations of the franchiser and franchisee, for example over the level of support to be provided or the fees payable.

2.10 Alliances

An alliance is a slightly looser form of collaboration. It will involve a detailed legal agreement setting out how firms will work together. Typically, alliances can be formed between industry rivals in order to reduce the competitive forces that they face, such as the Star Alliance of 27 airlines. In terms of airline alliances, the major benefit is 'code sharing' whereby two or more members are able to book customers onto the same flight, leading to cost sharing and a rationalisation of fleet sizes. A major problem with forming alliances is overcoming regulatory resistance; as such, agreements are often viewed as anti-competitive because they typically reduce customer choice.

2.11 Potential use of assurance reports

In either a joint venture or a franchise arrangement, profits have to be shared between the various parties. In this respect, it could be valuable for the parties to have assurance that profits have been calculated correctly.

The *Assurance Sourcebook* (produced by the ICAEW Audit and Assurance Faculty) suggests the following mini-scenario where assurance would be valuable:

"The criteria which define the split of profits in a joint venture are defined in the joint venture agreement but the profit allocation needs clarification with the two parties. Both parties want assurance that the profit allocation has been calculated properly and in accordance with the agreement."

A second illustration from the sourcebook highlights a scenario which could apply to a franchise or a licensed operation:

"The management agreement made between hotel owners and operators includes a requirement for specific assurance over the reporting of management fee calculations. The hotel owners could benefit from an assurance report which verifies the way figures are extracted for use in the management fee calculation, and then also confirms that the calculation of the management fee is in accordance with the terms of the management contract."

2.11.1 Assurance reports on third-party operations

As well as the examples above about financial assurance, practitioners could be asked to undertake a wider range of assurance engagements in relation to third-party operations.

In any joint venture, franchise or strategic alliance, an organisation (the 'user organisation') will need to be confident that its business partners are effectively delivering the activities which they are responsible for. Equally, the business partners may wish to demonstrate that they are performing tasks as they have agreed to do.

Professional accountants can help increase the confidence of either an organisation or its business partners in their relationships by providing assurance over the services provided by the business partners (so-called 'responsible parties').

The basic principles and essential procedures for the performance of assurance engagements are established in International Standard on Assurance Engagements *(ISAE) 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information*.

ISAE 3000 (Revised) distinguishes between the two types of assurance engagement:

- Reasonable assurance engagements aim to reduce assurance engagement risk to an acceptably low level in the circumstances of the engagement as the basis for the assurance practitioner's conclusion. The practitioner's conclusion is expressed in a form that conveys the practitioner's opinion on the outcome of the measurement or evaluation of the underlying subject matter against criteria.
- Limited assurance engagements give a lower level of assurance. The nature, timing and extent of the procedures carried out by the practitioner in a limited assurance engagement would be limited compared with what is required in a reasonable assurance engagement. Nevertheless, the procedures performed should be planned to obtain a level of assurance which is meaningful, in the practitioner's professional judgement. To be meaningful, the level of assurance obtained by the practitioner is likely to enhance the intended users' confidence about the subject matter information to a degree that is clearly more than inconsequential.

Some of the salient points about the two types of engagement may be summarised thus:

Assurance	Level of risk	Conclusion	Procedures	Example
Reason-able	Low	Positive expression – opinion expressed	High	"The management has operated an effective system of internal controls"
Limited	Acceptable in the circum-stances	Negative expression – whether mat-ters have come to attention indicating material misstatement	Limited, but still provides a meaningful level of assur-ance	"Nothing has come to our attention that indicates significant deficiencies in internal control"

Elements of an assurance engagement

An assurance engagement will normally exhibit the following elements.

(a) A three-party relationship involving:

(1) a practitioner (the auditor or member of the engagement team)

(2) a responsible party (the client company)

(3) an intended user (eg, investors, regulators)

(b) Subject matter (ie, the information or issue to be attested)

(c) Suitable criteria (ie, standards or benchmarks to evaluate the subject matter)

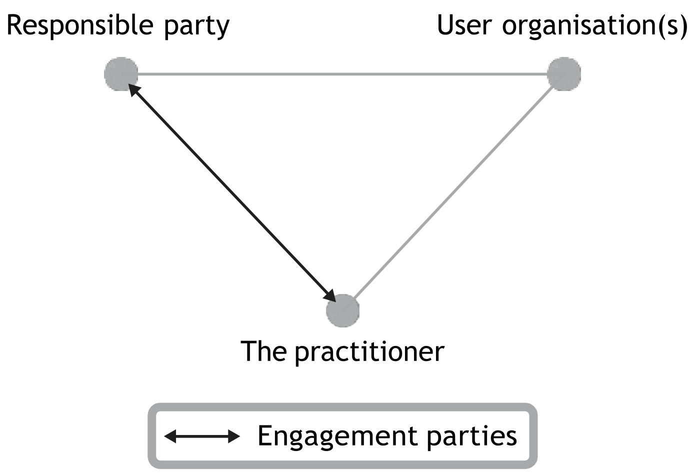
(d) Evidence (sufficient appropriate evidence needs to be gathered to support the required level of assurance)

(e) An assurance report (a written report containing the practitioner's assurance conclusion is issued to the intended user, in the form appropriate to a reasonable assurance engagement or a limited assurance engagement)

Assurance Reports on Third Party Operations

The ICAEW Audit and Assurance Faculty Technical Release AAF 02/07: *A Framework for Assurance Reports on Third Party Operations* highlights that assurance engagements over the operations performed by third parties usually take one of two forms as illustrated below:

(a) Engagement with the responsible party



Engagements with responsible parties: Where a responsible party engages an audit practitioner to provide an assurance report over the operations performed by the responsible party, the purpose of the engagement will typically be to enable the responsible party to increase the confidence of current and prospective users of its services. For example, if an outsourced service provider can demonstrate the effectiveness of its systems and processes, this might help it gain business from the user organisation.

Engagements with user organisations: In this type of engagement, one or more user organisations contracts with the practitioner to assess the operations of the responsible party with the objective of increasing the user organisations' confidence over the activities of the responsible party.

The distinction between these types of engagement is important because, if an engagement is with a responsible party, the practitioner may not know who the user organisations are – for example, the responsible party may want the assurance to provide confidence to future, prospective users. In such a case, the practitioner should only accept an assurance engagement when a typical user organisation is identifiable in the context, and consequently suitable criteria can be specified against which to assess the subject matter.

Appropriate subject matter

As with other assurance engagements, a practitioner should only accept an assurance engagement on third-party operations if the subject matter is appropriate.

The subject matter for assurance engagements over third-party operations could take a variety of different forms, depending on the operations involved. However, this may involve:

(a) Systems and processes – for example, obtaining assurance over the entity's internal controls or IT system, and their effectiveness. In this type of engagement, the conclusion of the assurance report will focus on the effectiveness of the systems and processes.

(b) Compliance with agreed contracts or other standards – for example, obtaining assurance that the third party is carrying out certain actions in line with legal and regulatory requirements or in accordance with agreed standards, such as a service level agreement. In this type of engagement, the practitioner's report will provide assurance as to whether the third party is complying with the necessary contracts or not.

(c) Financial performance or conditions – for example, historical or prospective financial position, financial performance and cash flows. In this type of engagement, the subject matter could be the recognition, measurement, presentation and disclosure of the financial information in relevant financial statements.

(d) Non-financial performance or conditions. Here the subject matter information could be key performance indicators, relating to quality, efficiency or effectiveness.

(e) Physical characteristics – for example, the capacity of a facility and therefore its suitability for fulfilling different processes or operations. In this case, the subject matter may be a document specifying details of the facility.

(f) Behaviour – for example, corporate governance, compliance with regulations and human resource practices. In this context, the subject matter information may be a statement of compliance or a statement of effectiveness.

(These questions of compliance could also be relevant in the context of the supply chain, which we will consider in chapter Strategic implementation. For example, are suppliers behaving responsibly and ethically?)

Suitable criteria

In order for a practitioner to express a conclusion on the subject matter in an assurance report, suitable criteria have to be agreed against which the practitioner can evaluate the subject matter.

In some cases, there may be publicly available criteria– such as ISO 27002 (for information security management) and the COSO framework (for internal controls). Similarly, performance criteria may beset out in contractual arrangements, as agreed between the user organisation and the responsible party. However, if no suitable criteria are already established, criteria will need to be specifically developed for the engagement.

Sufficient appropriate evidence

Once the criteria have been established, the practitioner needs to obtain sufficient appropriate evidence that the subject matter satisfies the criteria, or the subject matter information is free from material misstatement.

At the End of the engagement, the practitioner must express their conclusion in writing in an assurance report. The report should include the following elements:

- An identification or description of the level of assurance obtained by the practitioner

- The subject matter information (the outcome of the measurement or evaluation of the underlying subject matter against the criteria; for example, "The company's internal controls operated effectively in terms of criteria X in the period")
- An identification of the applicable criteria (assertions, measurement methods, interpretations, regulations)
- A description of significant inherent limitations (for example, noting that a historical review of internal controls does not provide assurance that the same controls will continue to operate effectively in the future)
- When the applicable criteria are designed for a specific purpose, a statement alerting readers to this fact and that, as a result, the subject matter information may not be suitable for another purpose
- Responsible parties and their responsibilities, and the practitioner's responsibilities
- Statement that the work was performed in accordance with ISAE 3000 (Revised) (or another subject matter specific ISAE, where relevant)
- An informative summary of work performed (including, for limited assurance engagements, a statement that the nature, timing and extent of work performed is different from that carried out for a reasonable assurance engagement, and therefore a substantially lower level of assurance is provided)

The practitioner's conclusion provides a level of assurance about the subject matter. Absolute assurance is generally not attainable as a result of such factors as:

- the use of selective testing
- the inherent limitations of control systems
- the fact that much of the evidence available to the practitioner is persuasive rather than conclusive
- the use of judgement in gathering evidence and drawing conclusions based on that evidence
- in some cases, the characteristics of the subject matter

Therefore, as we have noted earlier, practitioners ordinarily undertake engagements to provide one of only two distinct levels: reasonable assurance and limited assurance.

Unmodified and modified conclusions

An unmodified opinion is expressed when the practitioner concludes:

- In the case of a reasonable assurance engagement, that the subject matter information is prepared, in all material respects, in accordance with the applicable criteria
- In the case of a limited assurance engagement, that, based on the procedures performed and the evidence obtained, no matters have come to the attention of the practitioner that causes them to believe that the subject matter information is not prepared in all material respects, in accordance with the applicable criteria

A modified conclusion will be issued where the above does not apply.

3 Strategic decision-making

Section overview

In a sense, generating strategies is relatively easy, as a combination of applying models including Porter and Ansoff, allied with mimicking the successful strategies of your rivals, will typically yield numerous potential ploys. At this point, the available options will need to be narrowed down in a systematic and objective way, as an organisation will not have the resources to pursue all possible actions simultaneously.

Once an organisation has identified its current strategic position, and the different potential strategic options available to it, it then has to choose which of these options it wants to pursue.

The rational model of strategic planning suggests that individual strategies have to be evaluated against a number of criteria before a strategy or a mix of strategies is chosen. Johnstone *al* in *Exploring Strategy* narrow these criteria down to three: **suitability**, **acceptability** and **feasibility**.

Suitability differs from acceptability and feasibility in that little can be done with an unsuitable strategy. However, it may be possible to adjust the factors that suggest a strategy is not acceptable or not feasible. Therefore, **suitability should be assessed** first.

3.1 Suitability

Suitability relates to the **strategic logic** of the strategy. The strategy must fit the company's operational circumstances. Will the strategy:

- exploit company strengths and distinctive competences?
- rectify company weaknesses?
- neutralise or deflect environmental threats?
- help the firm to seize opportunities?
- satisfy the goals of the organisation? (And, at a more general level, does it fit with the company's mission and objectives)?
- fill the gap identified by gap analysis?
- generate/maintain competitive advantage?
- involve an acceptable level of risk?
- suit the politics and corporate culture?

An organisation should also consider two overall important strategic issues when assessing the suitability of an option:

- Does it fit with any existing strategies that the company is already employing, and which it wants to continue to employ?
- How well will the option actually address the company's strategic issues and priorities?

A number of the models which we have looked at already in this Workbook could be useful for assessing the suitability of a strategy:

Porter's generic strategies – For example, if an organisation is currently employing a cost leadership strategy and the basis of a proposed strategy is differentiation, this might not be suitable.

Value chain – Similar issues could be identified in relation to the activities in the organisation's value chain: will the activities required for the proposed strategy 'fit' with the nature of the activities in the organisation's current value chain?

BCG matrix – How will any new products or business units fit with the existing ones in an organisation's portfolio? Will they improve the balance of the portfolio?

Ansoff's matrix – Is the choice of product-market strategy suitable? For example, in order for a market development strategy to be suitable, there have to be unsaturated markets available which the organisation could move into. At the same time, the organisation's product or service has to be more attractive to customers than any existing competitor offerings so that the customers in the new market will want to switch to the organisation's product.

3.2 Acceptability (to stakeholders)

The acceptability of a strategy relates to people's expectations of it. It is here that stakeholder analysis can be brought in.

(a) Financial considerations. Strategies will be evaluated by considering how far they contribute to meeting the dominant objective of increasing shareholder wealth.

- return on investment
- profits
- growth
- earnings per share
- cash flow
- price/Earnings
- market capitalisation

Customers. Will the strategy give customers something they want? How will customers react to the strategy? Customers may object to a strategy if it means reducing service or raising prices but, on the other hand, they may have no choice but to accept the changes.

Management have to implement the strategy via their staff.

Staff have to be committed to the strategy for it to be successful. If employees are unhappy with the strategy, they could leave.

Suppliers have to be willing and able to meet the input requirements of the strategy.

Banks are interested in the implications for cash resources, debt levels etc.

Government. A strategy involving a takeover may be prohibited under monopolies and mergers legislation. Similarly, the environmental impact may cause key stakeholders to withhold consent.

The public. The environmental impact may cause key local stakeholders to protest. Will there be any pressure groups who oppose the strategy?

Risk. Different shareholders have different attitudes to risk. A strategy that changed the risk/return profile, for whatever reason, may not be acceptable.

Professional skills focus: Applying judgement

Stakeholder analysis will reveal differences in stakeholder expectations and there is unlikely to be a strategic option that is acceptable to all stakeholders. Use your judgement to identify the key stakeholders and recommend the most appropriate strategy to satisfy their needs, whilst recognising any stakeholder conflict that may arise as a consequence.

3.3 Feasibility

Feasibility asks whether the strategy can, in fact, be implemented.

- Is there enough money?
- Is there the ability to deliver the goods/services specified in the strategy?
- Can we deal with the likely responses that competitors will make?
- Do we have access to technology, materials and resources?
- Do we have enough time to implement the strategy?

An evaluation of an organisation's resources or competences (akin to a resource audit) could also be useful for assessing feasibility. Does the organisation have the resources it needs to implement the strategy successfully?

Strategies that do not make use of the existing competences, and which therefore call for new competences to be acquired, might not be feasible.

- Gaining competences via organic growth takes time.
- Acquiring new competences can be costly.

Aspects of feasibility are very important in relation to strategic choice because they may restrict the choices that are available to an organisation. For example, if an organisation does not have the finance available to support an expansion plan, it will not be able to implement that expansion plan.

Note: Evaluation means assessing strategic options or situations in a balanced way, considering potential advantages and disadvantages, and future consequences, as a basis for sound decision- making. Although the suitability, acceptability, feasibility (SAF) framework can be used to help identify aspects of a proposal which could be advantageous or disadvantageous, the assessment of the advantages and disadvantages is ultimately the most important aspect of an evaluation.

3.4 ESG

Given the importance that many stakeholders place on ESG (economic, social, governance) issues, the impact that a strategy will have on sustainability cannot be ignored. Within the SAF model, sustainability could be considered under the acceptability heading, as it relates to how acceptable a strategy is to a broad range of stakeholders.

Some organisations may feel it is appropriate to consider the longer-term prospects for a strategy under a separate heading of sustainability. This indicates that a firm should aim to adopt strategies that will deliver a long-term competitive advantage.

Importantly, when thinking about 'sustainability', organisations need to consider not only environmental sustainability, but also whether their business model is economically and socially sustainable.

In order to evaluate the strategies, metrics will need to be chosen, and targets set (eg, the strategy must not produce more than X tonnes of CO_2 emissions). Any strategies that do not achieve the targets would be rejected. Metrics are likely to be consistent with the metrics used by investors and other external stakeholders in evaluation an organisation's ESG performance.

Environmental: Strategies may be evaluated on the volume of carbon emissions that they are likely use, or the quantity of energy, water and other scarce resources.

Social: The impact of a strategy on key existing stakeholders would need to be considered (eg, would it involve making redundancies). If a proposed strategy involves a third party (such as outsourcing) then the social performance on the third party would need to be evaluated. Areas such as diversity, human rights records and the ethical behaviour of the third party would need to be considered.

Governance: Would the strategy require any changes to the existing governance arrangements, such as changes in the system on internal controls?

Examples of metrics used to evaluate ESG performance are discussed in chapter Strategic performance management.

Risk: As mentioned in the SAF model above, the risk associated with a particular strategy needs to be considered to ensure that a strategy is acceptable given the risk preferences of stakeholders. It should be noted that there are particular risks associated with sustainability, and these can be significant. Risk management is considered in the chapter Business risk management, and section 7 of Business risk management discusses ESG risks.

Interactive question 3: Evaluating strategic options

BBB is a biotechnology company which develops pharmaceutical drugs. It was founded seven years ago by three scientists when they left the university medical school, where they had been senior researchers. The company employs 10 other scientists who joined from different universities. All these employees are receiving relatively low salaries but participate in a share option scheme, such that when BBB is successfully floated on the stock exchange, they will receive shares in the company.

BBB currently has a number of new, innovative drugs in development, but the earliest any of these drugs might come to market is two years from now. It is expected that there would be one successful drug launched in most years after that for at least six years. However, successful drug launches are never guaranteed, due to the speculative nature of biotechnology and the long period of clinical trials through which any new drug must pass. BBB has to invest a significant amount of resources into the development of each potential drug, whether they are successfully launched or not. Currently, it has 12 drugs in development, a number of which may not make it to market. Due to the speculative nature of the industry, companies such as BBB are unable to obtain bank loans on commercial terms.

BBB is funded by an exclusive arrangement with a venture capital company. However, there is only sufficient cash in place to maintain the present level of activity for a further nine months. The venture capital company owns 15% of the equity of the company. The rest is owned by the three founders. It has always been the intention of the venture capital company and the founders that, once the company has a sufficient number of drugs in production and on the market, the company would be floated on the stock exchange. This is expected to happen in five years' time.

Recently, there have been a number of approaches to BBB which might solve its cash flow problems. The three founders have identified the following options:

(1) The venture capital company has suggested that it will guarantee the cash flow until the first drug is successfully launched in commercial quantities. However, it would expect its equity holding to rise to 60% once this offer is accepted.

(2) A large pharmaceutical company has offered to buy BBB outright and retain the services of the three founders (in research roles) and a few of the staff.

(3) Another biotechnology company has offered to enter into a merger with BBB. This company has also been established for seven years and has one drug which will be launched in six months. However, of the four other potential drugs it has in development, none are likely to be commercially viable for another five years. This company would expect the three founders to stay with the newly merged company but feels a rationalisation of the combined staff would be needed.

Requirement

Using the 'Suitability, Acceptability, Feasibility' framework, evaluate the strategic options identified by the founders.

See **Answer** at the end of this chapter.

4 Evaluating strategic options

Section overview

While the Suitability, Acceptability, Feasibility framework will provide guidance on what steps are involved in strategic choice, it does not necessarily guide on **how** to carry out the evaluation of the choices available. In particular, detailed analysis of the returns on investment opportunities, alongside an analysis of the risks, will be of value.

4.1 Investment decisions

Under the heading of 'Acceptable', particular consideration will be paid to the returns available to shareholders. In the context of a profit-seeking organisation such as a listed company the financial returns will be of paramount importance. The techniques used to assess the likely returns on investment will include:

- net present value
- internal rate of return
- payback period
- return on capital employed
- return on investment
- residual income

If the organisation in question is a non-profit making concern, such as a charity or government- owned institution, then value for money will be more relevant than the actual returns. Value for money is commonly assessed via the following criteria:

(a) **Economy** – Does the organisation operate within its financial budget? For governmental institutions, access to external finance is often limited or prohibited, so the ability to operate within a fixed budget is vital.

(b) **Efficiency** – The limited inputs, such as working capital, plant and machinery and employees, must be managed in a way that allows them to be processed into outputs in an efficient manner. To control processes measures of throughput must be developed, often through composite key performance indicators (KPIs). For instance, a hospital's efficiency can be measured through metrics such as 'operations per surgeon' or 'patients treated per bed'.

(c) **Effectiveness** – All operational strategies must support the overall organisational strategy, and this can be monitored through 'SMART' objectives. As an example, a hospital's effectiveness can be measured against centrally set government targets such as mortality rates and cancer survivorship rates.

4.2 Risk analysis

Definition

Risk: Risk refers to the quantifiable spread of possible outcomes.

All business opportunities will be exposed to risks of differing types and to differing degrees. When faced with competing investment opportunities, the degree of risk faced can be the deciding factor. This is because investors will want to be rewarded with a level of return that is commensurate with the degree of risk faced.

As such, when assessing financial acceptability, riskier opportunities must deliver proportionally higher returns. Some of the investment appraisal methods highlighted earlier can be adjusted to factor in some of the risks by using an appropriate discount factor as an investment hurdle. You will explore this in more detail in Investment appraisal in this Workbook.

Worked example: Risk analysis

Consider the following investment opportunities:

Investment A guarantees to return £100,000 in one year, on an initial investment of £50,000.

Investment B will deliver either £200,000 or £0 on the same initial investment over the same period of time with equal probabilities.

Solution

Investment A delivers a net return of £50,000 with 100% certainty.

Investment B will deliver an actual net outcome of either £150,000 or (£50,000). Using probabilities of 50:50 the expected value outcome is £50,000 [(£150,000 × 0.5) – (£50,000 × 0.5)].

We would conclude that although the expected value of Investment B is the same as the outcome for Investment A, it clearly presents a higher risk as there is a wide spread of possible outcomes with this option.

4.3 The importance of assurance and due diligence

The nature of strategic evaluation means that businesses have to make choices and take decisions about what course of action, or what strategy, to pursue. In order to take these decisions, businesses need adequate, relevant and reliable information.

However, in relation to key strategic choices (such as whether or not a company should acquire another company) problems may arise when one party to a transaction has more, or better, information than the other party. In other words, there is information asymmetry.

This problem is exacerbated by the fact that frequently there is an incentive for the party with greater information to use their superior position to gain an unfair advantage in a transaction. For example, if an acquisition target presents an optimistic forecast of its level of future earnings, this could lead to the purchase price for the company (and therefore the sale proceeds earned by its shareholders) being greater than if a less optimistic forecast had been presented.

Although the company hoping to make the acquisition will be able to review the statutory audited financial statements of the target company, these may not be sufficient to narrow the information gap between the purchasers and vendors, because the financial statements are prepared for a different purpose.

A greater, and more specific, level of assurance may therefore be required for acquisitions, mergers or joint ventures. The most common type of assurance in this context is a **report of due diligence**.

Definition

Due diligence: Due diligence is a term that describes a number of concepts involving the investigation of a company prior to signing a contractual agreement. This assurance procedure is typically carried out by an external firm appointed by the purchasers. The provider of the due diligence will assume a duty of care towards the party that appoints them.

The term due diligence is fairly wide in its application and extends far beyond a review of the target company's financial statements. For instance, specialist firms could be appointed to review the following areas:

- information systems
- legal status
- marketing/brand issues
- macro-environmental factors
- management capabilities
- sustainability issues
- production capabilities
- plant and equipment

Due diligence will attempt to achieve the following:

- confirm the accuracy of the information and assumptions on which a bid is based
- provide the bidder with an independent assessment and review of the target business
- identify and quantify areas of commercial and financial risk
- give assurance to providers of finance
- place the bidder in a better position for determining the value of the target company

However, the precise aims will depend on the types of due diligence being carried out. Due diligence could be financial, commercial or operational, although ultimately due diligence shouldn't only be focused on compliance – it is also about having confidence in the people you do business with, and having a better understanding of their business.

4.3.1 Financial due diligence

Financial due diligence is a review of the target company's financial **position,** financial **risk and projections** (for example, in relation to earnings and cashflows). However, it is not the same as a statutory audit, its purposes are more specific to an individual transaction and to particular user groups, and there is normally a specific focus on **risk and valuation**.

Another difference between financial due diligence and a statutory audit concerns the importance of projections. The focus of a statutory audit is primarily historical – reporting on actual performance and results – whereas projections are, by definition, forward-looking. Therefore, an accountant undertaking financial due diligence may need to gain assurance over prospective financial information. (We will look at assurance over prospective financial information in Strategic implementation of this Workbook.)

4.3.2 Commercial due diligence

Commercial due diligence complements financial due diligence by considering the target company's **markets and external economic environment**. The information used in commercial due diligence work may come from the target company and its business contacts, but it may also come from external information sources. It is important that the people carrying out commercial due diligence have a **good understanding of the industry in which the target company operates**. In this respect, it may be appropriate for people other than accountants to carry out commercial due diligence work.

The information that is relevant to commercial due diligence is likely to include the following:

- analysis of main competitors
- marketing history/tactics
- competitive advantages
- analysis of resources
- strengths and weaknesses
- integration issues
- supplier analysis
- market growth expectations
- ability to achieve forecasts
- critical success factors (CSFs)
- key performance indicators (KPIs)
- exit potential
- management appraisal
- strategic evaluation

4.3.3 Operational due diligence

Operational due diligence considers the operational risks and possible improvements which can be made in a target company. In particular, it will:

- validate vendor-assumed operational improvements in projections
- identify operational upsides that may increase the value of the deal

4.3.4 Technical due diligence

In many industries the potential for future profitability, and thus the value of the company, may be largely dependent on developing **successful new technologies**.

A judgement therefore needs to be made as to whether any technological benefits that have been promised by the vendor are likely to be delivered. This is very common in a whole range of different industries, including electronics, IT, pharmaceuticals, engineering, biotechnology and product development.

Such technological judgements are beyond the scope of accounting expertise, but nevertheless the credibility of technological assumptions may be vital to the valuation process. Reliance will thus need to be placed on the **work of relevant experts**.

4.3.5 IT and cyber security due diligence

IT due diligence assesses the suitability and risks arising from **IT factors** in the target company (for example, any issues surrounding IT security, or integrating IT systems post-acquisition). These risks are likely to be relevant to most companies, particularly given the increasing importance which IT systems play in supporting modern businesses, and in view of the increasing focus on cyber risks and cyber security.

The ICAEW (2014) publication – *Cyber Security in Corporate Finance* – highlights how mergers and acquisitions can increase the risk of a company's cyber security being compromised. The publication offers the following illustration. A company which was seen as an example of good cyber security practice acquired a smaller business, which had much weaker network security. However, the acquisition meant that the larger company inherited the weaknesses in the smaller company's security. As a result, it suffered a cyberattack, and subsequent investigations showed that the attacker had access to the whole network, and was able to steal data relating to new technology.

As such, a target company's cyber security should be considered as part of a due diligence exercise. Possible questions to ask are:

- When did the board last consider cyber security? And who is ultimately responsible for managing cyber security in the company?
- Has the company audited its cyber-security?
- How confident is the company that its most valuable information is properly managed and protected from cyber-threats?
- Has the company experienced a cyber- or information-security breach? If so, what steps did it take to mitigate the impact of this breach?

4.3.6 Legal due diligence

Legal issues arising on an acquisition are likely to be relevant to the following:

(a) Valuation of the target company – eg, hidden (or pending) liabilities, uncertain rights, onerous contractual obligations

(b) The acquisition process – eg, establishing the terms of the takeover (the investment agreement); contingent arrangements; financial restructuring; rights; duties and obligations of the various parties

(c) The new group – eg, new articles of association, rights of finance providers, restructuring

Reliance will need to be placed on lawyers for this process.

Human resources due diligence

Protecting and developing the **rights and interests of human resources** may be key to a successful acquisition. There may also be associated **legal obligations** (for example, obligations under a pension scheme, and regulations which protect employees' terms and conditions of employment when a business is transferred from one owner to another).

4.3.7 Tax due diligence

Information will need to be provided to allow the potential purchaser to form an assessment of the **tax risks and benefits** associated with the company to be acquired. Purchasers will wish to assess the robustness of tax assets, and gain comfort about the position regarding potential liabilities (including a possible latent gain on disposal due to the low base cost).

Information relating to any **tax warranties** that the vendor might offer should also be made available with the due diligence report as part of the 'marketing' information. This should generally not form a part of the due diligence itself, though.

4.4 Impact of big data on business models

4.4.1 Big data

One of the most widely quoted definitions of big data is that given by the technology research firm, Gartner:

Definition

Big data: "High-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processes for enhanced insight and decision making." (Gartner)

As this definition illustrates, the key elements of 'big data' can be described in relation to three 'V' characteristics:

Volume – the amount of data being generated and processed. The bigger the data, the more potential insights it can give in terms of identifying trends and patterns, and in terms of getting a deeper understanding of customer requirements.

However, the 'volume' aspect of big data also presents the most obvious challenges to conventional IT structures, due to the volume of storage space required for the data.

Velocity – the rate at which data flows into an organisation, and with which it is processed to provide usable results.

For example, online retailers are able to compile records of each click and interaction a customer makes while visiting their website, rather than simply recording the final sale at the end of a customer transaction. Moreover, retailers who are able to utilise information about customer clicks and interactions quickly – for example, by recommending additional purchases – can use this speed to generate competitive advantage.

It is important to recognise that the competitive advantage an organisation can gain from 'velocity' relates to the speed with which data is processed and the velocity of a system's outputs, as well as the speed with which data initially flows into it.

Variety (or variability) – the range of data types and sources from which to draw insights. In particular 'big data' combines structured and unstructured (ie, not in a database) data; for example, key words from conversations people have on Facebook or Twitter, the content they share through media files (tagged photographs, or online video postings), and the online content they 'like' could all be sources of unstructured data.

However, this variety presents a challenge to organisations, as they need to find ways of capturing, storing and processing the data. If data is too big, moves too fast, or doesn't fit with the structures of an organisation's existing information systems then, in order to gain value from it, the organisation needs to find an alternative way to process that data.

In addition, a fourth 'V' element is typically also added: '**veracity**' (truthfulness). The value of any insights gained from big data depends on the quality and accuracy of the data. If the data is unreliable (for example, due to bias or inconsistencies within it) this could reduce the value of any decisions which are taken on the basis of that data.

Moreover, hidden biases in the data could present significant risks to an organisation – for example, if the organisation develops a new product believing there is sufficient customer demand to make the product viable, when in fact that demand does not exist.

Poor data quality can often be the main barrier to executives integrating more data and analytics into their decision making.

Dealing with volume and variety

The volume and variety of data presents a challenge to organisations, as big data sets are virtually impossible to capture, store and process with conventional technology. If data is too big, moves too fast, or doesn't fit with the structures of an organisation's existing information systems then, in order to gain value from it, the organisation needs to find an alternative way to process that data.

One of the key challenges organisations face is how to turn this 'data' into usable business 'information'. Data itself is not useful to organisations. It only becomes valuable to them once it is presented in a way which enables them to gain insights from it.

As such, big data application could be seen as the combination of data sources, IT systems (to process that data and to present it) and human skills (to analyse the data) which allows companies to undertake more relevant and timely analysis than is possible with traditional business intelligence methods.

In its report, 'Big Data and the Creative Destruction of Today's Business Models' (2013), the consultancy firm AT Kearney notes that the enormous increase in the amount of data being generated is straining companies' IT infrastructures, and in many cases is slowing down their IT systems. Kearney argues that "The amount of data being generated can only be processed and managed with specialised technology. Harnessing the full capability of technology advances is the key to unlocking big data's potential."

In particular, one of the challenges in delivering big data capabilities comes from transforming an organisation's IT architecture to be able to efficiently handle unstructured as well as structure data, 'messy' external data as well as 'clean' internal data, and to cope with two-way data sharing with customers and partners rather than just a one-way data flow into the organisation.

4.4.2 Benefits of big data

Nonetheless, as computing resources have evolved, enabling companies to handle larger and more complex data sets, companies benefit by not only improving their performance in existing operations but also by identifying opportunities to expand product and service offerings.

For example, in the retail sector, big data assists the analysis of in-store purchasing behaviours in almost real time. By having such rapid insights into changes in demand, stores can adjust their merchandise, inventory levels, and prices to maximise sales.

More generally, AT Kearney's report suggests that big data can create strategic value in three key areas:

Faster decisions – Big data can provide more frequent, and more accurate, analysis which helps to speed up strategic decision making

Better decisions – Big data can estimate the impact of decisions using cross-organisational analysis, and can help to quantify the impact of decisions

Proactive decisions – Use predictive analytics to forecast customer and market dynamics, which could be used to help shape the decisions

Context example: Proactive decision making

AT Kearney (2013) provides the following example in its report.

A traditional, big-box (superstore) retail company had not achieved positive, like-for-like sales for a number of years. The retail market was getting more competitive, with the emergence of new competitors, and the growth of online channels. The company was trying to move into e-commerce and online channels, but seemed unable to reverse its declining sales.

Eventually, having recognised the need for more insightful data, and the amount of structured and unstructured data available, the company looked towards analytics as a source of competitive advantage.

The company engaged all areas of the business – including merchandising, purchasing, distribution, and forecasting – to understand where analytics could improve results. However, the emphasis was placed on predictive analytics rather than reactive data access. For example, instead of answering why sales of frozen pizzas were declining, the retailer focused on predicting sales decline and volume shifts in the frozen pizza category over time and across geographic regions. In another example, the company wanted to move from reacting to safety issues to predicting them before they occurred. As such, the company planned to use social media data to 'listen' for problems, because doing so could make the company more customer-centric, and could also help to protect against future crises.

4.4.3 Big data and competitive advantage

At the beginning of this chapter, we identified – in general terms – that one of the key issues an organisation has to consider when making strategic choices is how it plans to achieve competitive advantage.

However, similar questions could also be asked in relation to big data: How, and where, will big data and analytics create advantage for an organisation? Understanding the ways in which big data can drive competitive advantage is essential to realising its value.

Kearney's report highlights that insights organisations have gained from big data have resulted in profitable, sustainable growth in three key areas: customer insight, product innovation and operations.

Customer insight

The amount of data available to organisations about customers (for example, from interactive websites and other social media platforms (such as Facebook), combined with internal data such as customer contact information and transaction histories) allows organisations to develop new insights into their customers. In effect, "big data puts the customer at the heart of corporate strategy" (AT Kearney, 2013).

This can be seen in the way retailers can use big data to optimise their product assortments, in response to changing patterns of consumer demand.

In the past, retailers have typically analysed performance data (such as the proportion of inventory sold (sell-through rate), the number of stock-outs, or the impact of price promotions and multi-buy offers) at store level, or compared performance for different groups of products across the organisation as a whole. Using big data and analytics, however, retailers can analyse these data points for individual products, at a particular time and location. As a result, retailers can then generate different scenarios to gauge the probability of selling a particular product at a certain time and place. In turn, these scenarios can be used to optimise product assortments by location, time and profitability.

Product innovation

As well as tailoring products and services more effectively to their customers' needs, big data can also help companies to improve their products.

For example, GE is planning a new breed of 'connected, intelligent machines' – including jet engines and medical scanners – in which sensors in the equipment will transmit data over the internet back to product engineers.

If, for example, GE is able to improve the efficiency of its jet engines this could save airlines (who use the engines) significant amounts of money each year. Similarly, if the engines monitor their performance, and anticipate maintenance needs, this could enable parts to be fixed before they break. Here too there are potential financial benefits for the airlines, if the need for maintenance is identified as soon as performance starts to deteriorate – such that engines are performing at their optimal level.

In turn, integrating data into the 'intelligent machines' could be a source of competitive advantage for GE, and could generate new business for GE (if customers switch to using GE's engines in favour of competitors' ones).

Collecting data – The process of gathering data could, in itself, be a source of business, for companies which collate and organise data from many sources. Companies like Acxiom specialise in gathering data, which it then sells on to client companies – for example, to insurance companies who use a range of consumer data to assess premiums.

Data, and the related analytics, are a product in their own right. Technology and analytics firms have emerged to provide insights from the data – for example, from analysing transaction data between retailers and their suppliers, in order to help the retailers improve their operations.

Context example: Experian

As at May 2017, the credit reference agency Experian held around 3.6 petabytes of data from people worldwide. This makes Experian an authority for banks and other financial institutions who want to know whether potential customers represent a good investment, when they ask the bank to borrow money.

Experian's CIO outlined the key factors which have supported Experian's growth in a data-driven economy.

Technology: The movement towards open source technology which is less costly to operate, and can be scaled-up very effectively, thereby providing companies with greater capacity to be able to operate on much larger datasets. Only a few years ago, when Experian did analytics on a dataset, it was based on a smaller, representative set of information.

Now the company doesn't need to reduce the size of the dataset, because it can do analytics across much larger datasets. Larger datasets give a more accurate picture of whatever they represent; leaving less margin for error – in this case, determining whether or not someone will repay their loan.

Speed: In addition to the increasing size of the data, the speed at which it becomes available has also increased. This means that insights can be based on what is currently happening, rather than what happened previously. As the CIO noted, a lending decision 'based on information that's a month old is not nearly as impactful as a decision based on data that's a day, or hours, old.'

Source: Marr, B. (2017) *How Experian is using Big Data and Machine Learning to cut mortgage application times to a few days.* Accessed: www.forbes.com/sites/bernardmarr/2017/05/25/how- experian-is-using-big-data-and-machine-learning-to-cut-mortgage-application-times-to-a-few-days/# 79501e65203f

Simulations – Big data sets could also be valuable in helping companies to run experiments or test hypotheses. For example, if a company is considering a new product or service, it could use data sets to model and analyse different scenarios to help determine what works and what doesn't. Some companies already do this to an extent; for example, Amazon offers different content and dynamic pricing to various customers, and makes adjustments as appropriate.

Operations

The detailed, real time information which sensors or radio frequency identification (RFID) provides can also offer significant opportunities for improving supply chain performance.

For example, Airbus's 'Value Chain Visibility' programme uses RFID readers and motion sensors to monitor processes, materials and asset movements in real time. The programme extends across Airbus' suppliers, as well as its own manufacturing sites, and has resulted in reduced inventory, improved productivity, and – as a result – lower costs.

Similarly, AT Kearney's report (2013) cites the example of a retail chain which uses detailed product- by-product inventory information to identify over-stocks at one store that could be sold in another. Historically, the retailer's management information only identified the top 100 overstocked products, but the big data approach now takes the entire data set (several terabytes of operational data) and creates a comprehensive model of stock-keeping units (SKUs) across all its stores. This has enabled the retailer to move 'hundreds of millions of dollars' of in-store overstocks to other stores.

Making use of pricing, promotion and loyalty-card data to create deeper insights into what, and when, customers buy, the retailer has subsequently also built a predictive model of distribution to limit over-stocking more generally.

Note: A Stock Keeping Unit (SKU) is a product identification code (typically a barcode) that helps track the item for inventory, and allows an organisation to identify a specific item stored in a specific location.

4.4.4 Data as an asset

The illustrations in the previous section have shown how big data can help generate competitive advantage for an organisation. However, more generally, big data's potential as a source of advantage also highlights the importance for organisations to think of data as an asset, and then also to build the capabilities necessary to capitalise on big data's potential.

Similarly, once we recognise data as an asset, this also highlights the need for businesses to use data effectively; including the need for data-driven business models.

Context example: Zara

The fashion retailer Zara aimed to achieve close to real-time customer insight into fashion industry trends and purchasing patterns so that it could better align itself with its customers, resulting in increased retail sales volume. Zara knew it wanted to utilise a shortened supply chain to gain competitive advantage and to structure its resources efficiently and effectively. By incorporating near real-time sales statistics, blog posts and social media into its analytic system, Zara is able to rush emerging trends to market. One example was the social media 'storm' which occurred over a dress worn by Beyoncé on the opening night of her 2013 world tour. Before the culmination of the tour, Zara had already designed and manufactured replica dresses and began capitalising on this trend in its retail stores.

Source: Brownlow J, et al (2015) *Data and Analytics – Data-Driven Business Models: A Blueprint for Innovation*

Importantly, however, despite the increasing amounts of data available to them, organisations need to recognise that **performance** – not data sets, or algorithms – must ultimately remain their focus. Big data and data analytics are means to an end, but are ultimately tools which help organisations to identify, and then implement, solutions which generate value, or competitive advantage, for them.

In its report 'The age of analytics: Competing in a data-driven world' McKinsey (2016) highlights some of the issues which companies need to address when thinking about big data and analytics, and how they could be used to help improve an organisation's performance:

"Adapting to an era of data-driven decision making is not always a simple proposition. Some companies have invested heavily in technology but have not yet changed their organizations so they can make the most of these investments. Many are struggling to develop the talent, business processes, and organizational muscle to capture real value from analytics."

Importantly, McKinsey highlights that it is not sufficient to simply layer powerful technology systems on top of existing operations. In order for organisations to realise the full potential from data and analytics, they need to incorporate them into their strategic vision, and to develop the right business process and capabilities – including data infrastructure and talent.

5 International strategies

Section overview

International expansion is a major undertaking and firms must critically assess their reasons for it, and be sure that they have the resources to manage it, before doing so. The decision about which overseas markets to enter should be based on an assessment of market attractiveness, competitive advantage and risk.

5.1 Internationalisation

In the last half of the 20th century, and now into the 21st century, the volume of world trade has been increasing significantly. There have been several factors at work.

(a) **Reduced protectionism** leading to liberalisation of trade. Historically, some countries tried to protect local producers by imposing tariffs or quotas on imported products. However, many countries are now members of trade associations (such as the EU, NAFTA, MERCOSUR, ASEAN or the Trans-Pacific Pact (TPP)) that encourage international trade and restrict protection.

(b) **Export-led growth.** The success of this particular strategy has depended on the existence of open markets elsewhere. Japan, South Korea and the other Asian 'tiger' economies (eg, Taiwan) have chosen this route.

(c) **Market convergence.** Transnational market segments have developed whose characteristics are more homogeneous than the different segments within a given geographical market. Youth culture is an important influence here.

(d) **Information technologies** and communication. Developments in information technology and communication – particularly the growth of the internet – have accelerated the pace of internationalisation. The internet has enabled fast, 24/7, worldwide communication, meaning that customers and markets are no longer restricted by time or geographical limitations. As such, the internet makes it much easier for consumers to make purchases from suppliers in other countries.

(e) **Capital mobility.** Increasing capital mobility has also acted as a stimulus for the development of multi-national corporations. When capital can move freely from country to country, this makes it easier for entities to locate and invest abroad, and then to repatriate profits to their 'home' country.

Internationalisation has meant a proliferation of suppliers exporting to, or trading in, a wider variety of places. In many domestic markets, it is now likely that the same international companies will be competing with one another. However, the existence of global markets should not be taken for granted in terms of **all** products and services, or indeed in **all** territories.

(a) Some services are still subject to managed trade (for example, some countries prohibit firms from other countries from selling insurance). Trade in services has been liberalised under the auspices of the World Trade Organization.

(b) Immigration. There is unlikely ever to be a global market for labour, given the disparity in skills between different countries and restrictions on immigration.

(c) The market for some goods is much more globalised than for others.

(1) Upmarket luxury goods may not be required or afforded by people in developing nations.

(2) Some goods can be sold almost anywhere, but to limited degrees. Television sets are consumer durables in some countries, but still luxury or relatively expensive items in other ones.

(3) Other goods are needed almost everywhere. With oil a truly global industry exists in both production (eg, North Sea, Venezuela, Russia, Azerbaijan, Gulf states) and consumption (any country using cars and buses, not to mention those with chemical industries based on oil).

5.2 Key decisions in international expansion

There are two fundamental approaches to internationalising production: cost- or competence-led, and market-led.

Cost- or competence-led location

In this approach, production decisions are taken on the basis of the technology to be adopted, the scale of production (how many units per year) and the inherent characteristics of the location.

Company choices are then determined by a desire to obtain the cheapest – or, rather, best value or most cost-effective – place to obtain supplies. The **cost reduction opportunities** must be sufficient to overcome any cost and inconvenience incurred in subsequently transporting goods to market.

With regard to location, **labour** is a major factor in terms of its cost, quality, productivity and flexibility. This helps to explain why many clothing companies now use (cheap) labour in South-East Asian countries to manufacture garments which are subsequently exported for sale to Western Europe and the US.

Market-led location

Alternatively, a company may choose to locate some of its production activities inside a particularly attractive market, in order to benefit from customer demand in that market.

Locating in a market could also enable a company to avoid trade barriers (such as tariffs or import quotas).

Context example: Automotive production in Central and Eastern Europe

Central and Eastern Europe (CEE) has become an attractive destination for investments by global car manufacturers. In 2014, 3.6 million vehicles were produced in the region (Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia). This equated to 21% of total EU production.

However, most of the factories which produce them were established through foreign direct investment (FDI). The CEE region has been able to attract FDI due to its attractive labour costs, educated workforce, and geographical proximity to Western Europe.

Production is dominated by Western European brands, in particular German ones (with Audi, Mercedes and Volkswagen all having factories there). However, the CEE region is also attractive for Asian manufacturers, such as Hyundai, Toyota and Suzuki.

Analysis by Coface (2015) found that the automotive sector employed over 850,000 workers in 2013 in the six countries analysed. Coface's analysis also found that the number of vehicles produced in the CEE had more than doubled in the period 2004–2014.

However, a large proportion of the demand for the vehicles comes from foreign consumers. Consequently, vehicle exports account for a significant share of CEE's foreign trade. In Slovakia, for example, they represent 25% of the country's total exports.

Historically, the Russian market has been a secondary source of export demand for CEE, but Russian demand has fallen in recent years. However, the fall in Russian demand has been compensated by increased demand for other export destinations and domestic CEE sales.

CEE domestic demand is benefitting from better prospects for local households, due to the improved labour market, subdued inflation, low oil prices, rising consumer confidence and attractive interest rates. The relatively high propensity to spend is resulting in more dynamic car sales in CEE economies. And customers are not only individuals but also companies expanding their fleets of passenger cars and commercial vehicles.

Nonetheless, the sector's overall performance is primarily dependent on its exports to Eurozone countries, which remains its main export market.

Demand for new vehicles has been affected in recent years by the global financial crisis and the double dip recession in the Eurozone. Faced with a decline in demand, coupled with weak consumer and business confidence indicators, manufacturers have tried to implement processes for reducing their costs. This creates manufacturing opportunities for locations with attractive labour costs, such as the CEE countries.

[Based on: Coface Economic Publications (2015) *The CEE automotive sector is highly dependent on foreign investments but there are positive dynamics in domestic demand*.]

International expansion is a major undertaking and firms must know their reasons for it, and be sure that they have the resources to manage it, both strategically and operationally. The decision about which overseas market to enter should be based on assessment of **market attractiveness**, **competitive advantage** and **risk**.

Firms must deal with three major issues:

- whether to go international at all
- if it does decide to expand internationally, which markets to enter
- the mode(s) of entry

If a firm is considering investing in new production facilities in a foreign country, the choice of which country to invest in is a key strategic decision. **Porter's 'Diamond'** (which was covered in Business Strategy and Technology) is a useful model for analysing the factors which could make a country attractive (or not) as a place to invest for different industries.

The four factors in the 'Diamond' are:

- factor conditions
- related and supporting industries
- firm strategy, structure and rivalry
- demand conditions

Remember, however, that the four factors of the 'Diamond' are interrelated. Competitive advantage in an industry rarely comes from a single factor.

5.2.1 Deciding whether to market abroad

Firms may be **pushed** into international expansion by domestic adversity, or **pulled** into it by attractive opportunities abroad. More specifically, some of the reasons firms expand overseas are the following, which can be classified as either **internal** or **external** factors.

(a) **Chance.** Firms may enter a particular country or countries by chance. A company executive may recognise an opportunity while on a foreign trip or the firm may receive chance orders or requests for information from potential foreign customers.

(b) **Life cycle.** Home sales may be in the mature or decline stages of the product life cycle. International expansion may allow sales growth, since products are often in different stages of the product life cycle in different countries. For example, if a product is at the mature stage of its life cycle in a firm's home market, it could be beneficial to expand into an emerging market where the product may be at the introductory or growth stages of the life cycle.

(c) **Competition**. Intense competition in an overcrowded domestic market sometimes induces firms to seek markets overseas where rivalry is less keen.

(d) **Reduce dependence**. Many companies wish to diversify away from an overdependence on a single domestic market. Increased geographical diversification can help to spread risk.

(e) **Economies of scale**. Technological factors may be such that a large volume is needed either to cover the high costs of plant, equipment, R&D and personnel or to exploit a large potential for economies of scale and experience. For these reasons firms in the aviation, ethical drugs, computer and automobile industries are often obliged to enter multiple countries.

(f) **Cheaper sources of raw materials**. Access to cheaper raw materials, or cheaper labour, could be a source of competitive advantage for an organisation, particularly if it is pursuing a cost leadership strategy.

(g) **Financial opportunities.** Many firms are attracted by favourable opportunities such as:

- the development of lucrative emerging markets (such as India and China)
- depreciation in their domestic currency values (increasing the value of exports)
- corporate tax benefits offered by particular countries
- lowering of import barriers or other restrictions (such as tariffs and quotas)

International expansion

Before getting involved in international expansion, the company must consider both strategic and tactical issues.

C H A P T E R 2

(a) **Strategic issues**

(1) Does the strategic decision fit with the company's overall mission and objectives? Or will 'going international' cause a mismatch between objectives on the one hand, and strategic and tactical decisions on the other?

(2) Will the operation make a positive contribution to shareholders' wealth?

(3) Does the organisation have (or can it raise) the resources necessary to exploit effectively the opportunities overseas?

(b) **Tactical issues**

(1) How can the company get to understand customers' needs and preferences in foreign markets? Are the company's products appropriate to the target market?

(2) The company's performance will reflect the local economic environment, as well as management's control of the business. So the company needs to understand the economic stability and prospects of the target country before investing in it.

(3) Cultural issues. Does the company know how to conduct business abroad, and deal effectively with foreign nationals? For example, will there be language problems? Are there any local customs to be aware of?

(4) Are there foreign regulations and associated hidden costs?

(5) Does the company have the necessary management skills and experience?

(6) Have the foreign workers got the skills to do the work required? Will they be familiar with any technology used in production processes?

If you remember in Strategic analysis we distinguished between resources and competences, and such a distinction could also be useful here. A number of the 'issues' listed above relate to resources and skills, but perhaps a more important overall consideration for a firm is whether it has the **core competences** required in order to expand internationally.

Social responsibility

Before moving to a foreign country, an organisation should also consider whether there are any **corporate social responsibility** (CSR) implications of such an expansion. For example, if local labour laws allow workers to be employed for low wages and in poor working conditions, does the organisation take advantage of this, or does it treat its workers better than it has to? Similarly, if pollution laws are not very strict, does the organisation comply with the minimum requirements or does it build more environmentally friendly facilities than it has to?

In both cases, the socially responsible course of action may not be the one that maximises short-term profits. But the organisation needs to consider its reputation as a whole, and its CSR position as a whole. If it is seen to be exploiting workers in one country, this could damage its brand more widely.

For example, over 1,100 workers were killed when three clothing factories in Savar, Bangladesh, collapsed following a fire in April 2013. The factories supplied clothes to a range of international brands, including Primark, Mango and C&A, and labour groups and trade unions internationally began calling for immediate action to improve the working conditions in factories to reduce the risk of further, similar accidents occurring.

The importance of considering the CSR implications of foreign expansion is reiterated by the increasing importance of social and environmental reporting in companies' annual reports. For example, in the UK, the Companies Act 2006 requires all listed companies to report on environmental and social issues, including issues down their supply chains.

As a result, the potential social or environmental issues associated with the foreign expansion could become, in their own right, a significant factor in a company's decision about whether to expand internationally, and about how or where to expand.

5.2.2 Deciding which markets to enter

In making a decision as to which market(s) to enter, the firm must start by establishing its objectives. Here are some examples.

(a) What proportion of total sales will be overseas?

(b) What are the longer-term objectives?

(c) Will it enter one, a few, or many markets? In most cases, it is better to start by selling in countries with which there is some familiarity and then expand into other countries gradually as experience is gained. Reasons to enter fewer countries at first include the following:

  (1) Market entry and market control costs are high

  (2) Product and market modification costs are high

  (3) There is a large market and potential growth in the initial countries chosen

  (4) Dominant competitors can establish high barriers to entry

(d) What types of country should it enter (in terms of environmental factors, economic development, language used, cultural similarities and so on)? Three major criteria should be as follows:

  (1) Market attractiveness – This concerns such indicators as GNP per head, forecast demand and market accessibility.

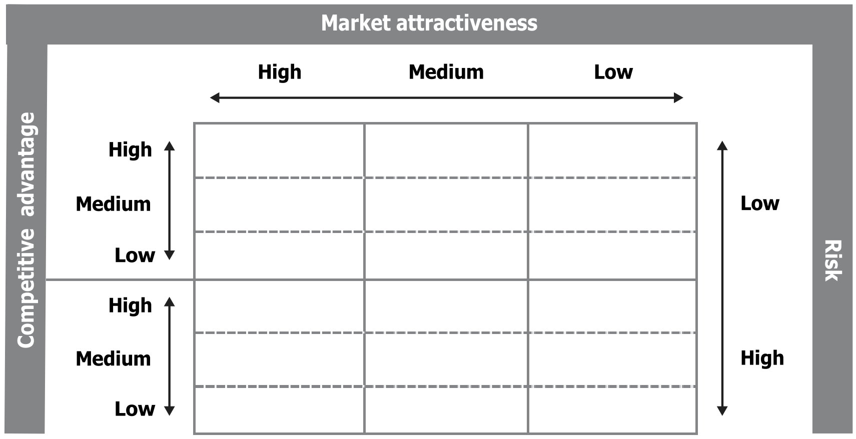
  (2) Competitive advantage – This could be dependent on prior experience in similar markets, language and cultural understanding.

  (3) Risk – This involves an analysis of political stability, the possibility of government intervention and similar external influences.

The matrix below (based on a model developed by Philip Kotler) can be used to bring together these three major criteria and assist managers in their decisions.

Figure 2.6: Kotler's market entry matrix

Evaluating which markets to enter



The best markets to enter are those located at the top left of the diagram. The worst are those in the bottom right corner. Obtaining the information needed to reach this decision requires detailed and often costly international marketing research and analysis. Making these decisions is not easy, and a fairly elaborate screening process will be instituted.

In international business there are several categories of risk.

(a) **Political risk**. This relates to factors as diverse as wars, nationalisation, arguments between governments etc.
(b) **Business risk**. This arises from the possibility that the business idea itself might be flawed. As with political risk, it is not unique to international marketing, but firms might be exposed to more sources of risk arising from failures to understand the market.
(c) **Currency risk**. This arises out of the volatility of foreign exchange rates. Given that there is a possibility for speculation and that capital flows are free, such risks are increasing.
(d) **Profit repatriation risk**. Government actions may make it hard to repatriate profits.

Market analysis

Firms need to analyse different markets before deciding which ones to enter. The following questions should be considered within such analysis:

(a) **Submarkets** – What submarkets are there within the market; defined by different price points, or niches for example?
(b) **Size and growth** – What are the size and growth characteristics of the market and submarkets within it? What are the driving forces behind trends in sales? What are the major trends in the market?
(c) **Profitability** – How profitable is the market and its submarkets now, and how profitable are they likely to be in the future? How intense is the competition between existing firms? How severe are the threats from potential new entrants of substitute products? What is the bargaining power of suppliers and customers?
(d) **Cost structure** – What are the major cost components for various types of competitor, and how do they add value for customers?
(e) **Distribution channels** – What distribution channels are currently available? How are they changing?
(f) **Key success factors** – What are the key success factors, assets and competences needed to compete successfully? How are these likely to change in the future? Can the organisation neutralise competitors' assets and competences?

Professional skills focus: Concluding, recommending and communicating

International expansion requires firms to assess whether they have the necessary skills and resources, whether the market is sufficiently attractive, and whether the benefits outweigh the risks. When concluding on an overseas expansion strategy you will therefore need to combine technical skills and scenario evidence to support your stated recommendation.

5.2.3 Choosing modes of entry

The most suitable mode of entry varies:

(a) Among firms in the same industry (eg, a new exporter as opposed to a long-established exporter)
(b) According to the market (eg, some countries limit imports to protect domestic manufacturers, whereas others promote free trade)

(c) Over time (eg, as some countries become more, or less, hostile to direct inward investment by foreign companies)

A large number of considerations apply.

Consideration	Comment
The firm's marketing objectives	These relate to volume, timescale and coverage of market segments. Thus, setting up an overseas production facility would be inappropriate if sales are expected to be low in volume.
The firm's **size**	A small firm is less likely than a large one to possess sufficient resources to set up and run a production facility overseas.
Mode availability	Some countries only allow a restricted level of imports, but will welcome a firm if it builds manufacturing facilities that provide jobs and limit the outflow of foreign exchange.
Mode quality	All modes may be possible in theory, but some are of questionable quality or practicality. The lack of suitably qualified distributors or agents would preclude the export, direct or indirect, of high technology goods needing installation, maintenance and servicing by personnel with specialist technical skills.
Human resources requirements	When a firm is unable to recruit suitable staff, either at home or overseas, indirect exporting or the use of agents based overseas may be the only realistic option.
Market feedback information	In some cases, a firm can receive feedback information about the market and its marketing effort from its sales staff or distribution channels. In these circumstances, direct export or joint ventures may be preferred to indirect export.
Risks	Firms might prefer the indirect export mode, as assets are safer from expropriation.

The specific modes of market entry are considered in the next section.

5.3 Market entry modes

Exporting

Goods are made at home but sold abroad. It is the easiest, cheapest and most commonly used route into a new foreign market.

5.3.1 Advantages of exporting

(a) Exporters can concentrate production in a single location, giving economies of scale and consistency of product quality.

(b) Firms lacking experience can try international marketing on a small scale.

(c) Firms can test their international marketing plans and strategies before risking investment in overseas operations.

(d) Exporting minimises operating costs, administrative overheads and personnel requirements.

5.3.2 Indirect exports

Indirect exporting is where a firm's goods are sold abroad by other organisations who can offer greater market knowledge.

(a) Export houses are firms that facilitate exporting on behalf of the producer. Usually the producer has little control over the market and the marketing effort.

(b) Specialist export management firms perform the same functions as an in-house export department but are normally remunerated by way of commission.

(c) BD buying offices of foreign stores and governments.

(d) Complementary exporting ('piggy back exporting') occurs when one producing organisation (the carrier) uses its own established international marketing channels to market (either as distributor, or agent or merchant) the products of another producer (the rider) as well as its own.

5.3.3 Direct exports

Direct exporting occurs where the producing organisation itself performs the export tasks rather than using an intermediary. Sales are made directly to customers overseas who may be the wholesalers, retailers or final users.

(a) **Sales to final user.** Typical customers include industrial users, governments and mail order customers.

(b) Strictly speaking, an **overseas export agent or distributor** is an overseas firm hired to effect a sales contract between the principal (ie, the exporter) and a customer. Agents do not take title to goods; they earn a commission (or profit).

(c) **Company branch offices abroad**. A firm can establish its own office in a foreign market for the purpose of marketing and distribution, as this gives greater control.

A firm can manufacture its products overseas, either by itself or by using an overseas manufacturer.

5.3.4 Overseas production

Benefits of overseas manufacture

- a better understanding of customers in the overseas market
- economies of scale in large markets
- lower production costs in some countries than at home
- lower storage and transportation costs
- overcomes the effects of tariff and non-tariff barriers
- manufacture in the overseas market may help win orders from the overseas public sector (for example, if there is a preference for local content in procurement)

5.3.5 Contract manufacture

Licensing is a common arrangement as it avoids the cost and problems of setting up overseas. In the case of **contract manufacture,** a firm (contractor) makes a contract with another firm (contractee) abroad whereby the contractee manufactures or assembles a product on behalf of the contractor.

Contract manufacture is suited to **countries** where the **small size of the market** discourages investment in plants; and to firms whose main **strengths are in marketing,** not production.

Advantages of contract manufacture

- no need to invest in plants overseas
- lower risks associated with currency fluctuations
- risk of asset expropriation is minimised
- control of marketing is retained by the contractor
- lower transport costs and, sometimes, lower production costs

Disadvantages of contract manufacture

- suitable overseas producers cannot always be easily identified
- the need to train the contractee producer's personnel
- the contractee producer may eventually become a competitor
- quality control problems in manufacturing may arise

5.3.6 Wholly owned overseas production

Production capacity can be built from scratch or, alternatively, an existing firm can be acquired.

(a) Acquisition has all the benefits and drawbacks of acquiring a domestic company.

(b) Creating new capacity can be beneficial if there are no likely candidates for takeover, or if acquisition is prohibited by the government of the country into which the company wants to expand.

Advantages

- The firm does not have to share its profits with partners of any kind.
- The firm does not have to share or delegate decision-making.
- There are none of the communication problems that arise in joint ventures.
- The firm is able to operate completely integrated international systems.
- The firm gains a more varied experience from overseas production.

Disadvantages

- The investment needed prevents some firms from setting up operations overseas.
- Suitable managers may be difficult to recruit at home or abroad.
- Some overseas governments discourage, and sometimes prohibit, 100% ownership of an enterprise by a foreign company.
- This mode of entry forgoes the benefits of an overseas partner's market knowledge, distribution system and other local expertise.

5.3.7 Outsourcing and off-shoring

Although outsourcing and off-shoring are not primarily growth strategies, they are business strategies that could relate to an organisation relocating some of its activities. A number of companies in developed countries have outsourced some of their operations to foreign countries where they can be performed more cheaply.

Outsourcing is the contracting out of specified operations or services to an external provider.

By removing some of an organisation's work, outsourcing allows an organisation to devote more time to the activities which it continues to perform in-house. Generally speaking, outsourcing is appropriate for peripheral activities, meaning an organisation has more time to concentrate on its core activities and competences.

A further advantage of outsourcing is that external suppliers may capture economies of scale and experience effects. This allows them to provide the function being outsourced at a lower cost than if the organisation had retained it in-house.

Getting the best out of outsourcing depends on **successful relationship management**, rather than through the use of formal control systems.

Outsourcing of non-core activities is widely acknowledged as having the potential to achieve important cost savings.

Advantages

- Can save on costs by making use of a specialist provider's economies of scale
- Can increase effectiveness where the supplier deploys higher levels of expertise (eg, in software development)
- Allows the organisation to focus on its own core activities/competences
- Can deliver benefits and change more quickly than business process reorganisation in-house
- Service level agreements mean that the company knows the level of service it can expect

Disadvantages

- There may be problems finding a single supplier who can manage complex processes in full. If more than one supplier has to be used for a single process, then the economies of scale are likely to be reduced.
- Firms may be unwilling to outsource whole processes due to the significance of those processes or the confidentiality of certain aspects of them. (This could be a particular problem if the contractor company is also working for competitors.) Again, if processes are fragmented in this way, the economies of scale may be reduced.
- Outsourcing can lead to loss of control, particularly in relation to quality issues. This occurs when agreed service levels are not met. The firm that is outsourcing activities now has to develop competences in relationship management (with the outsourced suppliers) in place of its competences in the processes it has outsourced.
- Firms may be tied to inflexible, long-term contracts.
- If there are specialist skills involved in the work, it may be difficult to switch to a new supplier if there are problems, or at the end of a contract period. This gives the external contractor significant bargaining power.

The outsourcing decision needs to be treated with care. The advantages it delivers will largely be seen in the short term, but there could be longer-term disadvantages in relation to loss of control, quality or knowledge. Therefore, both the short-term and longer-term implications need to be considered before an organisation chooses to outsource.

5.3.8 Strategic alliances

Alliances were discussed in section 2.10 of this chapter, and the nature of alliances lends itself to cross-border cooperation.

5.3.9 Joint ventures

Some governments discourage, or even prohibit, foreign firms from setting up independent trading companies, and as such a joint venture with a domestic company may be the only route available.

We looked at joint ventures at section 2.8 earlier in the chapter, but should note here that **international joint ventures** are a popular way for companies to enter new markets. Joint ventures allow companies to gain access to a partner's resources, including markets, capital, technologies and people.

International joint ventures can be a practical way for multinational companies to enter new markets, while the performance of local companies can also be enhanced by working with multinational partners (for example, as a result of knowledge transfer or technology transfer from the multinational partners).

Forming a joint venture (with the right partner) can be an effective way of achieving access to efficient and effective distribution channels and established customer bases.

While partnering with a local firm may be attractive to a foreign company if it doesn't have experience in such a market, in some cases establishing a joint venture may be necessary if there are barriers to foreign-owned or foreign-controlled companies in a country.

Context example: GVC Holdings and MGM

In July 2018, the UK gambling company GVC Holdings (which owns Ladbrokes and Coral) agreed a $200 million joint venture with the world's biggest casino operator, MGM Resorts.

The deal is strategically important for both parties. The US sports betting market has recently been liberalised, and this joint venture gives both partners a foothold in an industry sector which is forecast to grow into a multi-billion dollar sector.

Both partners have agreed to inject an initial $100 million as part of a 50–50 joint venture focused on US sports betting. The venture will make GVC the lead sports betting and online gambling services provided for all MGM's casino and hotel properties in the US.

Importantly the deal will also enable GVC and MGM to work together to create a range of land- based and digital gambling opportunities in the newly liberalised states. The liberalisation of the US betting market has been an eagerly anticipated watershed for UK bookmakers who have been vying for position to enter the US market.

UK bookmakers have the advantage of years of experience, due to the UK's more liberal approach to sports betting, while the common language reduces barriers to entry.

Based on: The Guardian (2018), 'Ladbrokes owner agrees $200m deal with MGM Resorts'. [Online] Available from: https://www.theguardian.com/business/2018/jul/29/ladbrokes-owner-close- agreeing-200m-deal-mgm-resorts-gvc [Accessed 6 August 2018]

5.4 International value chain

One of the key developments in the modern business world has been the internationalisation (or globalisation) of business markets and supply chains.

The global supply chain presents opportunities and threats for organisations.

Lower cost inputs – Gaining access to low-cost products made abroad represents an opportunity for companies based in developed countries to lower their input costs.

On the other hand, for organisations that fail to use low-cost foreign suppliers, the existence of these suppliers could represent a threat, which puts them at a competitive disadvantage.

The purchasing activities of large companies have become increasingly complicated as a result of different countries around the world developing different skills and competences. It is in the best interests of companies to search out the lowest-cost, highest-quality suppliers, wherever they may be. Moreover, the internet and global communications make it possible for companies to coordinate complicated multinational sales or purchases.

One commonly exploited opportunity for Western companies is **global outsourcing**.

Definition

Global outsourcing: The purchase of inputs from foreign suppliers or the production of inputs in foreign countries to lower production costs or to improve product design and quality.

Context example: Senior plc

In 2016, the international engineering solutions provider Senior plc announced it was cutting production in the UK as it sought to make savings in response to a fall in demand.

Announcing its interim financial results, the company said its 'Flexonics' unit, which makes hoses and valves used in the trucking, manufacturing and oil and gas industries, and accounts for almost one third of group revenue, is reducing its UK presence. "Production continues to be transferred to new facilities in Mexico, India and the Czech Republic", the company said. "All production has now been transferred from our Flexonics site in the UK, with the last programme and equipment having moved to India."

This offshoring of work is part of a long-term programme, which has also seen production move from Chicago to Mexico. However, the company said that the reorganisation of the Flexonics unit will allow it to set up a specialist technology development centre in the UK, in smaller, cheaper premises.

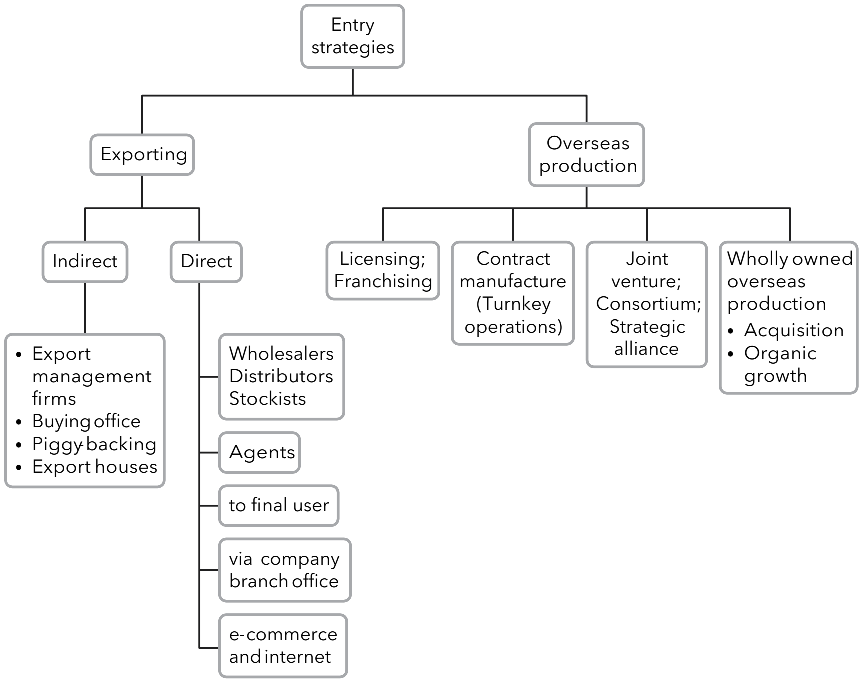
Nonetheless, the relocation of production is part of a programme of cost-cutting measures that also includes job cuts, overtime reductions and lower management spending.

Based on: The Telegraph (2016) *Senior moves UK production offshore as it battles oil price slump* [Online] Available from: https://www.telegraph.co.uk/business/2016/08/01/senior-moves-uk- production-offshore-as-it-battles-oil-price-slum [Accessed 6 August 2018]

5.5 Summary of entry strategies

The different entry strategies a firm could use for entering a foreign market can be summarised diagrammatically as below:

Figure 2.7: Market entry strategies



CHAPTER 2

Interactive question 4: Growth strategies

DD Co (DD) is a manufacturer of specialised electronic tracking equipment used by police forces. The equipment allows the tagging, and tracing, of valuable equipment and also of prisoners. The company, which was only established five years ago, has a virtual monopoly in its own country.

However, there are limited opportunities for growth in that country. As in most countries, the police forces in DD's home country are funded by the Government. The board of directors, which owns the company, wishes to see the same level of growth in revenue and profits continue. DD's equipment, which has been available for five years, is protected by a number of patents and involves some sophisticated technology, both in terms of the manufacturing process and the components that each device contains. Since the equipment is physically robust, there is only a limited replacement market. The external cases, used for carrying the tracking equipment, are bought in from an outside supplier, but most of the other components are manufactured by DD in its own factories.

DD's board of directors has decided that in order to pursue a growth strategy, it will need to develop an export market. It wants to develop a presence in all major markets in the world within a further five years. The MD has said that he expects the company to grow rapidly into a multinational company, operating in a number of countries. The board has identified a number of countries as possible areas in which DD might operate. However, the board recognises that elements of the political, economic, cultural and legislative environments in those countries differ from those that exist in DD's own country.

Requirement

Evaluate **four** market entry strategies that DD could use to develop a market in one of its identified countries.

See **Answer** at the end of this chapter.

5.6 Globalisation

Definition

Globalisation: The procurement, production, distribution and selling of products and services of a homogenous type and quality on a worldwide basis.

As this section has already indicated, one of the key developments in the modern business world has been the internationalisation of business markets and supply chains. However, the concept of globalisation extends this further.

Levitt (*The Globalisation of Markets,* 1983) described the development of a 'global village' in which consumers around the world would have the **same needs and attitudes** and **use the same products**. A global corporation would be one that operated as if the entire world was one entity, to be sold the same things everywhere.

Levitt's focus was on the marketing aspects of globalisation. The global business corporation will also be characterised by:

- **Extended supply chains:** Instead of making the product at home and exporting it, or setting up a factory in the host country to make it, the global corporation may factor out production so that different parts of the product (or service) originate in different countries.
- **Global human resource management:** This involves pan-national recruitment and development of human resources.

More generally, companies have developed more sophisticated organisational approaches to serve global markets. Many companies no longer operate solely in their home country, but instead they operate through a global value chain, with dispersed networks of suppliers, manufacturers and distributors.

Nonetheless, in this context, it is important to distinguish between the idea of global industries and those which are 'multi-domestic' (where industries and products are more shaped by local cultures and markets). For example, aircraft manufacturing or computer software could be seen as global industries, whereas the food industry has greater local variation. (We will look at these ideas again in a marketing context in Strategic marketing and brand management, in relation to the extent to which products can be standardised between countries and markets, or whether they need to be differentiated for specific markets.)

Importance of information and technology

Globalisation requires an IT infrastructure that enables a business to work and collaborate anywhere in the world. Two key elements of this infrastructure will be:

- facilitating the active participation of an organisation's employees, anywhere in the world, in sharing ideas and best practice, and in decision-making; and
- creating and maintaining relationships with supply chain partners.

One of the key factors underpinning globalisation – or internationalisation more generally – has been the flow of information, supported by developments in technology and communications, notably the internet. For example, digital marketplaces such as eBay, Alibaba and Amazon enable people to buy and sell products internationally.

Equally, technology can help businesses to expand into new markets to reach new customers. This could have important implications for the nature of 'global' firms.

Historically, the implication has been that 'global' firms will be large, with the growth of transnational(or 'borderless') companies, and the increasing significance of global brands like Microsoft, Sony and McDonalds being seen as one of the factors which have contributed to globalisation.

Definition

Borderless business: A borderless (or transnational) business is one which has operations in multiple countries other than its home country. The decision to expand production into new countries could be market-led (eg, to benefit from customer demand in that country) and/or cost- or competence-led(eg, to benefit from low cost, or high quality labour).

However, HSBC's (2015) report – *Trade Winds: shaping the future of international business* – suggests that, in the future, globalisation could also be underpinned by sophisticated and pervasive digital technology, which provides greater opportunities for entrepreneurs and start-ups, and forms the foundation for an 'always-on' global economy. A 2013 study by eBay found that 95% of small or medium sized enterprises on the eBay network engage in exporting, reaching between 30 and 40 international markets.

Similarly, HSBC's report suggests that there are greater opportunities for (small) business who specialise in one activity to **collaborate** with other best-in-class organisations to compete internationally or globally.

As a result, firms will face a globally changing array of market and supplier options, but equally will find that foreign competition becomes increasingly pervasive.

Impact of global competition on business management

In their text *Borderless Business: Managing the Far-Flung Enterprise*, Mann & Gotz highlight that the management mindset within firms needs to change in two major ways as industries become more globally competitive:

(a) Managers will need to change the way they think about their industry, because the fast pace of innovation and change disrupts the accepted notions of industry structure. However, by monitoring global industry trends in relation to their firms' capabilities, managers can identify potential opportunities to exploit, and threats to respond to.

(b) Managers will need to change the way they think about their firms and their management tasks. Instead of simply looking to extend existing domestic products and services across borders, either through exports or similar operations, firms will need to globalise their operations by coordinating functions and capabilities that are integrated across a broad range of activities, geographies, and cultures.

Mann & Gotz also suggest that there is likely to be significant diversity in the enterprise structures and management styles in 'global' firms, depending on the nature of the industry, the forces driving globalisation in an industry, and differing regulatory regimes, business practices and cultures among countries.

Managers of accounting and finance functions also need to appreciate how the interplay of national tax and accounting systems around the world influences the business environment.

5.6.1 Multinational companies and taxation

One important issue to consider in relation to multinational businesses is transfer pricing. This could be particularly important in relation to tax planning, and there were a number of high profile media stories in 2013 where it was suggested that companies such as Starbucks, Amazon and Google used transfer pricing to reduce the amount of tax they pay in the UK. For example, it has been suggested that Starbucks corporation (based in the US) charges its UK operation high prices for such things as the 'use of its logo' while the Swiss-based firm, Starbucks Coffee Trading Co., also earns a 'moderate profit' on the price it charges Starbucks UK for its coffee beans.

(We will look at international transfer pricing in more detail in International financial management later in this Workbook.)

The OECD's Base erosion and profit shifting (BEPS) programme is also addressing tax planning strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low tax locations resulting in little overall corporate tax being paid. BEPS is particularly significant for developing countries due to their reliance on corporate income tax, particularly from multinational corporations.

The aim of the OECD's BEPS programme is to give countries the tools they need to ensure that profits are taxed where the economic activities generating the profits are performed, and where value is created.

Tax rates and location decisions

More generally, tax policies and tax rates in different countries could affect an entity's choice of where to locate. Although, as we have already seen, there are a number of other economic, political or social considerations which will affect the location decision, it will be economically more attractive for an entity to invest in a country with lower tax rates.

In recent years, there has been press speculation that a number of UK-based multinational companies have been considering leaving the UK in favour of countries with more generous tax regimes.

The Conservative government appears to have responded to these concerns by pledging to cut corporation tax to 19% in 2017 and then to 18% in 2020. The proposed reduction to 18% would bring the UK into competition with the statutory rates in Switzerland, Singapore and Hong Kong.

Following the announcement of these changes, analysts noted that the rate reduction may be helpful in attracting overseas business to UK shores, and in dissuading businesses from relocating operations away from the UK.

5.7 Foreign exchange rates and financial statements (IAS 21)

For the accountant in business, an important consideration in relation to international expansion will be the potential impact that exchange differences could have on cash flows and profits, and on the financial statements.

International strategies may expose an organisation to risks relating to foreign exchange gains and losses. In your exam you may need to advise a company on the financial reporting aspects of overseas trading; that is, the '**translation gains and losses**'.

Context example: Retail margins

In its *Audit insights: retail* guide (2013), the ICAEW Audit & Assurance Faculty highlights three key areas which could affect UK retailers' performance and margins: changing business models (from physical stores to online retail), the living wage, and foreign exchange.

Foreign exchange

Retailers import goods and materials into the UK. Currency fluctuations have a significant impact on their ability to set prices and safeguard profit margins. As an example, more retailers sourcing goods from the Far East have been affected by considerable volatility in foreign exchange rates.

Why is this important?

- Retailers sourcing their goods from outside the UK will need to manage their exchange rate risks to secure their revenues and margins.
- Exchange rate fluctuations can cause significant variances in the reported figures of net assets as companies translate the value of their foreign assets and liabilities into home currency for their consolidated financial statements.
- The need to balance changes in customer trends with hedging forward contracts can be very challenging in certain retail areas, for example fashion retailing.
- For retailers exporting to foreign countries, the risk is that even if their sales forecasting is correct, and they receive the amount of orders they expect, they will build up receivables from abroad. The foreign exchange forward deals that are booked can become problematic if there is little clarity on when they will be paid and what the exchange rate will be at that time.

The relevant International Accounting Standard is IAS 21, *The Effects of Changes in Foreign Exchange Rates*. The objective of IAS 21 is to prescribe how to include **foreign currency** transactions and foreign operations in the financial statements of an entity, and how to translate financial statements into a **presentation currency**. The principal issues are which exchange rate(s) to use and how to report the effects of changes in exchange rates in the financial statements.

Definitions

Functional currency: The currency of the primary economic environment in which the entity operates.

Presentation currency: The currency in which financial statements are presented.

The basic steps in translating foreign currency transactions are:

(a) The reporting entity determines its functional currency.

(b) The entity translates all foreign currency items into its functional currency.

(c) The entity reports the effects of translation and the associated tax impact in its financial statements.

5.7.1 Foreign currency transactions: initial recognition

An entity is required to recognise foreign currency transactions in its functional currency. The entity should achieve this by translating the foreign currency amount at the **spot exchange rate** between the functional currency and the foreign currency at the date on which the transaction took place.

Average rate – Where an entity has a high volume of transactions in foreign currencies, translating each transaction may be an onerous task, so an average rate may be used. For example, a duty-free shop at Heathrow Airport may receive a large amount of dollars and euros every day and may opt to translate each currency into sterling using an average weekly rate.

Similarly, a business whose sales occur relatively evenly throughout the year (ie, its business is not seasonal) could use an average rate for the year rather than using an actual rate for every transaction.

(IAS 21 provides no further guidance on how an average rate should be determined, so an entity should develop a method which is easily implemented with regard to any limitations in its accountingsystems.)

5.7.2 Subsequent measurement

A foreign currency transaction may give rise to assets or liabilities which are denominated in a foreign currency. These assets and liabilities will need to be translated into the entity's functional currency at each reporting date. The basis on which they are translated depends on whether the assets or liabilities are monetary or non-monetary items.

Definitions

Monetary items: Units of currency held, and assets and liabilities to be received or paid in a fixed or determinable number of units of currency. (Examples of monetary items include: cash and bank balances; trade receivables and payables; loan receivables and payables.)

Non-monetary items: A non-monetary item does not give the right to receive, or create the obligation to deliver, a fixed or determinable number of units of currency. (Examples of non- monetary items include: amounts prepaid for goods and services; goodwill; intangible assets; inventories; property, plant and equipment.)

At each subsequent reporting date the following rules should be applied.

(a) Monetary items. Foreign currency monetary items should be translated and then reported using the closing rate.

(b) Non-monetary items carried at historical cost are translated using the exchange rate at the date of the transaction when the asset or liability arose.

(c) Non-monetary items carried at fair value are translated using the exchange rate at the date when the fair value was determined.

5.7.3 Recognition of exchange differences

Exchange differences arise:

(a) On a retranslation of a monetary item at the year-end (eg, if a foreign currency receivable remains outstanding at the yearend).

The exchange difference is the difference between initially recording the items at the rate ruling at the date of the transaction and the subsequent retranslation of the monetary item to the rate ruling at the reporting date. Such exchange differences should be reported as part of the profit or loss for the year.

(b) When a monetary item is settled in cash (eg, a foreign currency payable is paid).

These exchange differences should also be recognised as part of the profit or loss for the period in which they arise.

There are two situations to consider here:

(1) **The transaction is settled in the same period as that in which it occurred:** in this case, all the exchange difference is recognised in that period.

(2) **The transaction is settled in a subsequent accounting period:** an exchange difference is recognised in each intervening period up to the period of settlement, determined

by the change in exchange rates during that period. A further exchange difference is recognised in the period of settlement.

(c) Where there is an impairment, revaluation or other fair value change in a non-monetary item. These are recognised as follows:

(1) When a gain or loss on a non-monetary item is recognised as other comprehensive income

(for example, where property denominated in a foreign currency is revalued) any related exchange differences should also be recognised as other comprehensive income.

(2) When a gain or loss on a non-monetary item (eg, fair value change) is recognised in profit or loss, any exchange component of that gain or loss is also recognised in profit or loss.

Interactive question 5: Exchange differences

San Frank, a company whose functional currency is the US$, purchases goods on credit from Mexico SA for 129,000 Mexican pesos on 31 October 20X8.

San Frank's year end is 31 December, and at 31 December 20X8 the outstanding invoice from Mexico SA had not yet been paid. The invoice was paid in full on 31 January 20X9.

The exchange rates between Mexican pesos and US$ are as follows:

	Pesos to $1
31.10.X8	9.5
31.12.X8	10.0
31.1.X9	9.7

Requirement

How should this transaction be recorded in the financial statements of San Frank for the years ended 31 December 20X8 and 20X9?

See Answer at the end of this chapter.

5.7.4 Foreign currency translation and financial statements

The previous section has looked at the requirements for the translation of foreign currency transactions.

However, foreign currency translation will also be required when foreign activities are undertaken through foreign operations (eg, foreign subsidiaries) whose financial statements are based on a different functional currency than that of the parent company.

IAS 21 identifies the appropriate exchange rate which should be used for translating the financial statements of the foreign operation into the reporting entity's presentation currency.

The following procedures should be followed to translate an entity's financial statements from its functional currency into a presentation currency:

- Translate all assets and liabilities (both monetary and non-monetary) in the current statement of financial position using the closing rate at the reporting date.
- Translate income and expenditure in the current statement of profit or loss and other comprehensive income using the exchange rates ruling at the transaction dates. (An approximation to actual rate is normally used; being the average rate.)

- Report the exchange differences which arise on translation as other comprehensive income. (Where a foreign subsidiary is not wholly owned, allocate the relevant portion of the exchange difference to the non-controlling interest.)

Note that the comparative figures are the presentation currency amounts as presented the previous year.

The exchange differences which arise when translating the financial statements of foreign operations are reported as other comprehensive income (rather than as part of the profit or loss for the year) because they have not resulted from any exchange risks to which the entity is exposed.

The differences have arisen purely through changing the currency in which the financial statements are presented. To report these exchange differences in profit or loss would distort the results from the trading operations, as shown in the functional currency financial statements, since these differences are unrelated to the foreign operation's trading performance or financial operation.

5.7.5 Reporting foreign currency cash flows Statement of cash flows

As we noted at the start of section 5.7, exchange differences could also have an impact on an entity's statement of cash flows.

- Where an entity enters into foreign currency transactions which result in an inflow or outflow of cash, the entity should translate cash flows into its functional currency at the transaction date.
- Although transactions should be translated at the date that they occurred, for practical reasons IAS 21 permits the use of an average rate where it approximates to actual.

Foreign subsidiaries

A similar approach is required where an entity has a foreign subsidiary. The transactions of the subsidiary should be translated into the reporting entity's **functional currency** at the transaction date.

Reporting translation differences

Although the translation of foreign currency amounts does not affect the cash flow of an entity, translation differences relating to cash and cash equivalents are part of the changes in cash and cash equivalents during a period. Such amounts should therefore form part of the statement of cash flows. IAS 7, *Statement of Cash Flows* requires the effect of exchange rate movements to be reported separately from operating, investing and financing activities.

Where an entity adopts the indirect method of calculating cash flows from operating activities and it has foreign currency amounts which have been settled during the period, no further adjustment is required at the period end. This is because any foreign exchange difference will already include the amount of the original foreign currency transaction and the actual settlement figure. An overseas purchase will be recorded using the purchase date exchange rate and a payable will be recorded. On settlement, any adjustment to the actual cash flow paid will be recognised in profit or loss as part of the entity's operating activities.

Unsettled foreign currency amounts in relation to operating activities, such as trade receivables and payables, are not adjusted at the period end because such amounts are retranslated at the reporting date and the exchange difference is reported in profit or loss already. Where an entity uses the indirect method for calculating its operating cash flows, it starts with the profit figure which will include the retranslation difference, and the movement in the period for receivables and payables will also include a similar amount. Since the two amounts effectively eliminate each other, no adjustment is required.

5.7.6 Exchange rates and financial performance

It should be noted that, in your Strategic Business Management & Leadership exam, your focus should be the consequences of business decisions, not simply the reporting mechanics. For instance, you should be able to advise a company on the financial reporting impact of a decision to manufacture in a foreign country, versus manufacturing domestically and exporting abroad.

Such a decision has a fundamental impact on the way foreign exchange gains or losses are reported. As we have seen in sections 5.7.3 and 5.7.4 above, any exchange difference arising from individual transactions in foreign currencies is recognised in profit or loss. However, exchange differences arising from the translation of the accounts of foreign operations prior to consolidation are reported as other comprehensive income.

Equally, you should be prepared to advise a company on how a decision to manufacture abroad could affect its performance. For example, if exchange rates in the foreign country appreciate against the rates in the countries where products are sold, what effect could this have on the sales price (or the margin which is earned on the products)?

Exchange rate movements can affect the price of both imported goods and services, and exported goods and services. Importantly, this could apply not only to transactions with third parties, but also to 'internal' transactions within a supply chain.

Companies can deal with currency fluctuations in a number of ways:

(a) **Currency matching** – Trying to ensure that assets/liabilities and revenues/costs are incurred in the same currency.

(b) **Foreign currency hedging** – Financial instruments (such as forward contracts, foreign currency futures, money market hedges and currency options) can be obtained from financial markets to reduce a company's exposure to unfavourable exchange rate movements. The detail of foreign currency hedging, and the appropriate accounting treatment for it (as prescribed by IFRS 9, *Financial Instruments*) is covered in Financial risk management of this Workbook.

(c) **Market entry strategies** – A company could use a market entry strategy (eg, licensing) which takes account of local currencies. So, for example, the local agent could operate in a local currency, but remit their licence fee in the company's 'home' currency – so the risk relating to any exchange movements rests with the local agent.

5.7.7 Commercial impact of changing exchange rates

In addition to being aware of the potential impact of changes in exchange rates on a company's financial statements, it is also important to appreciate the wider commercial impact of a movement inexchange rates.

Context example: Supermarket prices

In October 2016, a dispute between Tesco and Unilever over who should bear the cost of the weakening pound led to Tesco briefly stopping the sale of dozens of Unilever products from its online store.

Following the UK's decision, in June 2016, to leave the EU ('Brexit'), the value of the pound fell significantly against the US dollar and the euro. As such, the cost of imported commodities, priced in those currencies, increased and Unilever demanded price increases to offset these higher costs.

As the Financial Times noted: "The pound has fallen 17 per cent since Britain voted to leave the EU. Officials cautioned ahead of the referendum that a vote for Brexit would cause food prices to rise."

In November 2016, the former CEO of Sainsbury's warned that the fall in the value of sterling would trigger a rise in supermarket grocery prices of at least 5% in the subsequent six months.

He argued "Around 40% to 50% of what we [supermarkets] buy is sourced in a currency other than the pound, so with the current rates of exchange we could expect those things to be about 10% more expensive. And if that's about half of what we buy, then that means something of the order of 5% inflation."

Based on: Vandevelde, M., Daneshkhu, S. & McClean, P. (2016) 'Tesco pulls Marmite from sale as slide in sterling sparks fight with Unilever', *Financial Times*, 13 October 2016

Stones, M. (2016) 'Supermarket prices 'to rise 5% in six months': Justin King, *Food manufacture*, 23 November 2016

Context example: Sports Direct

In July 2017, the British retailer Sports Direct reported a 28.5% fall in full-year core earnings, reflecting a lower gross margin due to the weak pound and a lack of hedging.

The sportswear chain said it had hedging arrangements in place to minimise the short-term impact of currency volatility, but it remained exposed to fluctuations in the medium and long term.

The group said its outlook was 'optimistic' with early indications showing that trading in a new generation of flagship stores was exceeding expectations. As a result, the group said it was looking for growth in EBITDA of between 5% and 15% in the 2017–18 year.

The group said that the continued uncertainty surrounding Brexit could continue to result in short- term fluctuations in its underlying EBITDA. However, Sports Direct was badly affected by the fall in the value of the pound following Britain's vote in June 2016 to leave the European Union.

The group procures most of its products from Asia, in dollars, but was not hedged for the 2016–17 year before the Brexit vote, and it then erred with a belated hedge.

Underlying EBITDA fell from £381.4 million in the year to April 2016 to £272.2 million in the year to April 2017.

Based on: Reuters, (2017) 'Sports Direct earnings slump on weak pound, "optimistic" on prospects', *Reuters*, 20 July 2017

Although the dispute between Tesco and Unilever was quickly resolved, these examples highlight the potential impact that significant changes in exchange rates can have on businesses.

As the Sports Direct example illustrates, a significant decline in £ sterling will make imports of raw materials and commodities (which are often priced in US$) more expensive. Manufacturers and retailers then face a choice: they can either try to pass on the higher costs to consumers (by increasing their prices), or they keep prices unchanged and absorb the higher costs themselves (eg, through lower profit margins).

Conversely, the weaker pound could be a benefit to UK exporters.

For example, at an exchange rate of £1:€1.25, a product manufactured in the UK and sold for £5,000 would have a price, in euros, of €6,250. If the exchange rate then falls to £1:€1.1, the UK company will receive £5,682 (6,250/1.1)from each unit of the product sold in Europe.

Alternatively, the UK company could reduce the price (in euros) at which the product is sold, making it more competitive and potentially increase demand for it. At a rate of £1:€1.1, the selling price required for the manufacturer to receive £5,000 would be €5,500 (compared to 6,250 at a rate of £1:€1.25).

6 Digital strategies

Section overview

Digital strategy involves the application of new (digital) technologies to products and processes, particularly in relation to the way businesses interact with customers. Digitisation is often discussed inrelation to the way it enables new entrants, using disruptive models, to penetrate existing industries.However, existing firms can also develop digital strategies – but if they do so they ensure that their digital strategies fit with their overall corporate strategy.

6.1 Digital strategy

In this chapter, we have discussed the key factors an organisation needs to consider when developing strategies; in terms of how to compete and where to compete, for example, in terms of the products the organisation sells, the markets it sells to, and how it positions itself relative to its competitors.

However, an increasingly important consideration for organisations is also how they use digital strategy.

Definition

Digital strategy: The use of digital technology and digital assets to challenge existing ways of doing things and to restructure accordingly, in particular in relation to the way businesses interact with their customers.

Context example: McDonald's

When McDonald's announced its second quarter results in July 2017, it reported its strongest monthly sales growth in the UK for 43 years.

Speaking to analysts, McDonald's CEO said that 'mobile ordering and pay' was now the company's biggest priority, and it had rolled out mobile ordering in 20,000 restaurants worldwide, including 14,000 in the US.

The brand allows customers to order using the app in selected restaurants. People can choose their meal, check-in to the restaurant by scanning one of the QR codes, quickly pay and pick up their food.

McDonald's has also started honing in on delivery, and in June 2017 announced a trial partnership with UberEats in the UK, making its menu available for home delivery in London, Nottingham and Leeds.

McDonald's has witnessed significant changes in recent years. Its marketing campaigns have shifted to focus on de-bunking myths about its food, and promoting a message of quality.

Meanwhile, its restaurants have been upgraded as part of its 'Experience of the Future' programme, with many outlets now featuring in-store touchscreen kiosks, mobile charging docks and table service.

The company's focus on its digital capabilities is the next phase of this transformation, with the mobile ordering app being the first example of this.

Source: Roderick, L., (2017) 'McDonald's claims it has "only scratched the surface" with food delivery as sales soar', *Marketing Week*, 25 July 2017

6.2 Impact of 'Digital'

Digitisation is most often discussed in relation to the way it enables new entrants, using disruptive models, to penetrate existing industries, and to change the competitive landscape in those industries.

However, digitisation has more dimensions than this:

- Technology can affect products or services – for example, turning a DVD into a digitally streamed experience.
- Technology can also transform the way a product or service is delivered to the customer; for example, through e-commerce rather than retail stores.

Adobe Systems has redefined itself as a digital (cloud-based) company. It no longer offers its publishing and design tools in the form of physical, shrink-wrapped products which are used, under licence, at customers' sites, and which could only be upgraded by buying a new version. Instead, customers now subscribe to the company's online suite of publishing and design tools, and receive frequent software upgrades.

More radically, perhaps, motor vehicle software is evolving to enable cars to be repaired via downloaded software upgrades instead of mechanics.

- Digitisation also encompasses the automation of a business's operations and processes, and can extend across an organisation's supply chain. For example, a company's supply chain could be digitised by introducing an inventory management system which connects all the retailers, distribution centres, manufacturers and suppliers, such that each party receives data about the others' supply levels, and orders are placed and fulfilled automatically, thereby smoothing out the gluts and shortages of a traditional supply chain.
- Digitisation can even extend across the wider business environment – for example, enabling 'customers' to be linked via crowd-sourcing platforms, eliminating the need for business intermediaries.

Context example: Digital disruption

The internet is reshaping retail, but even industries that benefit from the still-healthy demand for 'experiences' are scrambling to confront a rising tide of digital challenges.

The hotel and travel sector provides an example of this. In July 2017, the combined stock market value of Priceline and Expedia was $114 billion, almost as much as all the hotels and hospitality groups in the S&P 500, or the airlines.

That is beginning to worry some investors that depend on the health of the traditional travel industry, such as real estate investors that rent out properties to the big hotel franchises.

The chief investment officer (CIO) of Ashford Investment Management, which specialises in real estate, is concerned about what would happen if Priceline and Expedia have all the data and drive customers to their own hotels. In such circumstances, brands would no longer matter, and this could have a massive impact on the established hotel chains (who have invested time and effort in developing brand awareness and brand loyalty).

The CIO estimated that the online travel agencies currently account for about 10% of all customers of hotels that lease properties from Ashford, but for some hotels that figure could be as high as 60%.

This gives the online agencies increasing power over the hotel industry.

Bloomberg has reported that the American Hotel & Lodging Association, which includes chains like Marriott and Hilton, is lobbying the Federal Trade Commission to say the two big agencies are monopolistic.

With additional pressure from the likes of AirBnB, the hotel industry faces a challenging time.

Based on: Wigglesworth, R. (2017) 'Will the death of US retail be the next big short', *Financial Times*, 17 July 2017

In an article about digitisation ('Think digital is a big deal? You ain't seen nothing yet'), McKinsey & Co suggests that, to date, incumbents' digital strategies have focused primarily on digital distribution and marketing.

However, in most cases, these strategies have merely been necessary to enable companies to keep pace with their rivals, rather than being a source of any competitive advantage. (In effect, digital distribution and marketing become a threshold competence; not a unique competence.)

To gain a competitive advantage, businesses need to differentiate themselves from their competitors by investing in the other dimensions of 'digital' that have seen less adoption – for example, by 'digitising' their supply chain.

However, McKinsey's article also highlights another important point. Digital strategy should not be built in a vacuum. Instead, it must be grounded in the broader corporate strategy, and then leverage digitisation to tackle new business opportunities.

Equally, Mark McDonald, the Managing Director of Digital Strategy at Accenture Strategy has pointed out that, although technology plays a key part in digital strategy – what technologies to invest in, and where those investments go – it is important to recognise that digital strategy is not purely IT strategy.

Successful digital transformation involves fundamental changes in capabilities, business processes, governance and culture, as well as underlying technology architecture. For example, we have already mentioned data and analytics – and a digitally oriented culture needs to embrace data analytics as a core organisational capability.

Based on this, McDonald has suggested that the best way of looking at 'digital' is "as the applications of information and technology to raise human performance"; for example, through the use of analytics or big data to enhance market insight, and to understand how to improve and automate current business models.

Ultimately, the goal of a digital strategy should be to create a competitive premium based on a company's unique combination of digital and physical resources; doing things in ways that other companies cannot, and in ways that build competitive advantage and create new customer value (through new products, processes and experiences).

A company's ability to use data and analytics effectively is likely to be an important factor which influences its ability to successfully develop, and implement, a digital strategy; for example, using real-time analytics to tailor products to customers, or production to customer demand, and using granular data to personalise products and services.

One of the characteristics of digital strategy is that it encourages closer interaction with customers; making the value chain more responsive.

Business models are also evolving to take advantage of the economics of mass customisation, where

– in effect – every product is created as a batch of one. For example, the appliance manufacturer Haier makes its washing machines and refrigerators in China to order. Customers specify the features they want on their computers or phones, or at kiosks in Haier's retail stores, and those specifications are transmitted directly to the assembly line.

6.3 Elements of digital strategy

In our definition of digital strategy earlier in this section, we identified that digital strategy involves the use of digital technology and digital assets to challenge existing ways of doing things. In Strategic analysis, we highlighted some key developments in digital technology – automation, machine learning and artificial intelligence – and here we will consider some illustrations of the impact these could have on an organisation's strategies, and how they could contribute to competitive advantage.

6.3.1 1Robotic process automation

Robotic process automation is particularly useful in rules-based, repetitive processes. Therefore, a key question for organisations is: do they have any low value, rules-based, repetitive processes which are currently performed by people, but which could be automated instead – for example, billings, or collections. Automation does not only reduce the cost of processing, but can also improve quality and accuracy. Robots do not get tired or 'creative' in the way people do; they simply carry on applying the rules set for a process.

Context example: The impact of automation

The following extract is taken from a report by ICAEW's Business & Management Faculty (June 2018) looking at the potential impact of automation:

The retail and wholesale sector is one of the largest employers in the UK, accounting for around 15% of all jobs (in 2018).

In the future, however, the world could look very different. Almost one fifth of retail sales are already made online, and this figure is continuing to rise steadily over time. This tends to shift jobs from shops to warehouses (need to fulfil online orders) but companies like Amazon are already looking to automate some warehouse activities (for example, using robots to shift shelves of goods to workers who pick out items for dispatch) and the level of automation is likely to increase significantly in the future as robotics technology advances in areas like dexterity to allow more manual tasks to be automated.

Even where people still go to shops, the shopping experience may be very different from what they are currently used to, as illustrated by the Amazon Go launch. In these shops, customers can scan their phones at the entrance, scan items they want to buy as they pick them up from the shelves, and are then automatically charged for the goods as they leave the store. There are no longer any check- outs or cashiers (although human workers are still needed to deal with customer queries or technical glitches).

Based on: ICAEW Business & Management Faculty (2018), UK productivity and the impact ofautomation, in *The UK economy… an insight*

6.3.2 Artificial intelligence and machine learning

Whereas automation and robotic processes are appropriate for repetitive, rules-based tasks, artificial intelligence (AI) relates to machines' ability to identify patterns and make decisions.

Machine learning is a branch of AI in which systems or machines can learn from data, identify patterns and make decisions with minimal human intervention.

Definitions

Artificial intelligence: the ability of a machine or system to perform cognitive functions we associate with human minds, such as perceiving, reasoning, learning and problem solving, and acting in a way that we would consider to be 'smart'. Most advances in artificial intelligence have been achieved by applying machine learning to very large data sets.

Machine learning: Machine learning algorithms detect patterns and learn how to make predictions and recommendations by processing data and experiences, rather than by receiving explicit instructions. The algorithms also adapt in response to new data and experiences to improve efficacy over time. (McKinsey & Co)

A machine's learning algorithm enables it to identify patterns in observed data, and to build models that explain these patterns or predict things. One of the key aspects of machine learning is that it is **iterative**: as models are exposed to new data they are able to adapt independently, In this way, models learn from previous computations to produce reliable, repeatable decisions and results. As such, machine learning enables organisations to make decisions without human intervention – thereby removing the risk of human error, or bias, in the decision-making process.

Machine learning decisions are based on two important aspects of analytics:

- **Prediction** ('predictive analytics'): anticipating what will happen, based on the data and patterns in the data.
- **Prescription** ('prescriptive analytics'): providing recommendations for what to do in order to achieve goals or objectives (for example, personalised product recommendations used by internet retailers).

Context example: Machine learning

Perhaps one of the most well-known examples of machine learning is autonomous vehicles (self- driving cars) which could potentially transform the way people move around. However, the following are examples of other, less transformational, ways machine learning can be used in different businesses or contexts:

Marketing and sales – Websites recommending items a customer might want to buy, based on analysis of previous purchases and buying history (eg, Amazon's recommendations for products to buy, or Netflix's recommendations for programmes to watch based on previous viewing). Algorithms can also be used to help encourage shoppers to complete a purchase – for example, by adjusting pricing, offering coupons, or providing other incentives, in real time.

The ability to capture data, analyse it and use it to personalise a shopping experience is likely to become increasing important in the future of retail marketing.

Transportation – Analysing real-time data to make routes more efficient and to identify potential problems can be vital in the transportation industry and for delivery companies (eg, route optimisation).

Healthcare – Wearable devices and sensors can use data to assess a patient's health in real time, potentially foreseeing dangerous health events (eg, cardiac arrests).AI tools can also help to diagnose illness, for example looking at X-ray scans to identify cancers. In addition, machine systems have more scope to learn a patient's family history, or background, and therefore their risk of having different illnesses, than a doctor is able to do in a short appointment.

Insurance – AI technologies can now be applied to a wider variety of data sources to improve the accuracy of risk assessments and quotations. For example, AI tools can automatically analyse real- time data from security systems or by using drones when underwriting home insurance applications. Similarly, AI tools can analyse telemetry data and provide insight into driving behaviour (eg, how fast the customer drives, and whether they exceed the speed limit) to help inform car insurance quotations. However, AI can also allow insurers to move beyond the traditional model (of paying out after a claim) towards a preventative model of helping customers avoid losses in the first place. For example, commercial property insurers can use the data generated by smart buildings to help customers reduce the risk of fire or water damage.

Financial services – Machine learning can have a number of applications in financial services:

- Fraud detection: detecting anomalies in patterns of payments or receipts and flagging these for security teams
- Loan applications: helping to identify the risk profile of potential clients (eg, through advanced analytics for credit scoring)
- Portfolio management: 'robo-advisors' (such as Betterment or Wealthfront) use algorithms to calibrate a financial portfolio to the goals and risk tolerance of the investor, and adjust to changes in investors' goals and real-time changes in the market, to ensure the best fit between investors' portfolios and their investment goals

Cyber security – AI tools make decisions very quickly. One of the problems that cyber defence teams face is that they get so many alerts it can be difficult to know how to prioritise them. AI can detect anomalies, and so can alert defence teams to the specific data they need to look at.

Context example: AI and corporate finance

In an ICAEW White Paper, *AI in Corporate Advisory*, the UK Artificial Intelligence Lead at PwC noted that AI could eventually be used very effectively by corporate financiers to identify, or evaluate, potential deals. AI could be used to look at past deals, identify success and failure factors, and inform the preferred characteristics of future deals.

However, PwC's AI Lead also pointed out that, although some of the underlying technology building blocks are already well-developed, the AI will need access to enough training data to build an accurate system. At the simple end of the scale, it would already be possible to carry out what he describes as 'pre-emptive diligence' by analysing publicly available information about thousands of companies before making an acquisition.

However, a more sophisticated approach is to understand actual deal outcomes in more detail and to link this knowledge to the characteristics of potential target companies, using large amounts of historical data. An important issue here, though, is the availability of data; including key questions around how much data is needed, across how many variables, and from how many transactions, to make an effective training set.

Source: ICAEW (2019), *White Paper: AI in Corporate Advisory*

A key point to note in relation to machine learning is that it ultimately relates to algorithms gathering insights from data – often in real time. By gathering these insights, organisations are able to work more efficiently, or to gain advantage over their competitors – which, ultimately, is the main benefit to them from employing AI or machine learning.

By being able to analyse large and complex data, and to deliver fast and accurate results, organisations increase their chances of being able to identify profitable opportunities, or avoiding potential risks.

However, it is important to recognise that there could be risks inherent in machine learning. Machines 'learn' based on the data they are given, but if there are **gaps** or **bias** in that 'training' data, then the models which the machines learn could be incomplete or inaccurate. For example (as an illustration of bias), a records system might classify anyone with the title of 'Dr' as being male.

An important general point here is that AI is only as effective as the data it learns from. Maintaining high quality data will therefore be key to a successful AI platform.

The use of AI also raises some wider potential concerns:

- **Security** – although technology has a number of benefits, it could cause significant damage if used maliciously. This reinforces the importance of cybersecurity in systems which rely on AI or machine learning. (We will look at cybersecurity in more detail in Information strategy.)
- **Mistakes** – Although the 'training' phase is intended to let machines 'learn' how to detect the right patterns in data, the training phase cannot cover all the potential situations a system may need to deal with in the real world. In one of these situations, a system could be 'fooled' in ways that humans wouldn't be. This raises two important questions:
  - How can organisations guard against mistakes (or unintended consequences) when using AI or machine learning? For example, an AI system might be asked to eradicate cancer in the world. After a lot of computing, the system could determine a formula to eradicate cancer – by killing everyone on the planet. The AI solution will achieve the goal of eradicating cancer, but not in the way humans intended, or in a way which is acceptable to us.
  - Who is responsible for errors caused by an AI system? (eg, the organisation using the system? the organisation which created the system?)

More generally, these questions highlight that the use of AI could potentially also raise ethical issues for organisations (and society more generally). We will look at ethics and AI in more detail in Ethics.

Chatbots

Definition

Chatbot: A service, powered by rules and artificial intelligence that people interact with via a chat interface. This chat interface can either be written or verbal.

In the previous example, we mentioned the way websites use algorithms to make recommendations for future purchases by customers. In such a situation, there isn't any 'dialogue' between the customer and the website – the customer is simply provided with the recommendation.

However, AI can also be applied in two-way 'conversations' between a human user and a virtual assistant. For example, Amazon's Alexa, Apple's Siri and Google Assistant are voice-activated virtual assistants which respond to instructions a user gives to them or a question a user asks them.

Virtual assistants which communicate with customers are also increasingly used on organisations' websites and apps. For example, when potential customers visit an organisation's website, they often see a message from a virtual assistant asking if they are looking for something, or if the assistant can help them with anything. In effect, this virtual assistant (the chatbot) is mirroring the type of experience a customer would receive when they go into a 'physical' retail store. Organisations across a wide range of business sectors now use chatbots to answer questions and to increase customer engagement.

Benefits of chatbots

Always accessible – Unlike humans, chatbots can operate 24 hours a day without getting tired, so they are always available to answer a customer's query.

Scalability – Whereas a human phone operator can only speak to one customer at a time, chatbots can simultaneously have conversations with large numbers of people at any time. Therefore, customers will no longer have to 'wait to speak to the next available operator' – instead a chatbot would be available to answer their query immediately.

Cost effective – Although organisations will still need some real people to help with conversations or queries which the chatbots cannot answer, chatbots could reduce the number of employees an organisation needs to handle customer queries, thereby reducing salary costs.

Customer satisfaction – In some cases, chatbots may even handle customers more effectively than human operators. If a customer is offensive or rude, a 'human' operator may react to this. However, chatbots will treat all customers in the way they have been programmed to, regardless of the way the customer treats them.

However, the following extract from Interbrand's 'Best Global Brands 2017' report also introduces an important note of caution, highlighting that successful companies will use technology to enhance their relationships with customers, rather than simply using them 'because they can':

'Voice assistants are a new frontier for many brands: a chance to literally begin a conversation with customers and field questions in real time. However, assistants run the risk of becoming intrusive. A TV ad that triggers a virtual assistant to deliver a message is a clever exploit of fresh technology – yet besides being amusing or surprising, it does little to build a relationship or provide deeper benefit.'

In other words, although voice assistants (and chatbots more generally) have the potential to be a powerful tool for companies, they will only fulfil that potential if they carry a relevant message – for example, providing valuable information for users, or simplifying their lives.

6.4 Developing a digital strategy

A key decision which incumbent companies face is whether to attack or defend, in the face of digital disruption. For a company with a high-margin business, it may be hard to imagine the need to set up a low-cost, innovative proposition to target customers, because this could destroy the 'value' the company could otherwise earn from the existing business. On the other hand, if it does nothing – and there are aggressive 'attackers' (new entrants) in the market – this could lead to long-term problems, if the attackers prove sufficiently attractive to customers so that the attackers capture market share from the company.

In many industries, there are opportunities through new channels, or from low-cost entry into new markets, as a result of 'digital'. But there are also threats, from improved price transparency that leads to margin compression.

Incumbents potentially have many strengths which they can use to help them defend against digital attackers:

- they have a customer base
- they have a brand
- they have data (about their customers)

However, incumbents have to make sure these assets are used effectively in the digital world; for example, using the data they have to develop the right marketing and offers in the digital space.

Crucially, incumbents also have to develop a strategy – supported by its marketing activities – which differentiates them from their competitors.

Context example: Omni-channel strategies

The retail industry is one which has been significantly affected by 'digital' as consumers now have the choice to shop online, rather than in-store.

However, many retailers have responded by developing a multi-channel (or 'omni-channel') approach to selling, using online tools as well as physical shops to engage with customers. The extent to which this approach is used depends on the socio-economics and demographics of the customer base, but most retailers have invested in tools that enable customers to check and reserve items in store, as well as shopping from home.

Similarly, in physical shops, retailers increasingly need to offer personalised service, and to promote the overall 'experience' of shopping in order to succeed. For example, successful retailers offer in- store events and expert staff who give recommendations beyond those that an online algorithm can produce.

An article in the November 2016 edition of ICAEW's *Finance & Management* publication ('Trading Places') suggests that the "new retail model will sell experience and lifestyle over goods, and will provide tailored products. Personalisation will be key … Mi Adidas already allows customers to create their own trainers by adding their own designs and logos, but that is just the start. We will see increasingly sophisticated levels of tailored service, be that through digital personal shoppers, in- store Bluetooth beacons that will trigger targeted mobile alerts to devices, or flexible fulfilment options that guarantee delivery at specified times."

The article continues, "While cost-plus pricing will still have its place, greater use will be made of profit-maximising models. Dynamic pricing, based on market conditions, and price discrimination, based on what customers can be charged – in effect, charging each customer differently depending on their personal information – will become more prominent. There are already reported cases of price discrimination being used by companies including Amazon … which used customer data such as addresses and the devices used to shop, to estimate wealth and charge accordingly."

6.5 Understanding digital disruption

Although incumbents might be tempted to focus on, and respond to the threat posed by digital disrupters, it is potentially more instructive to understand **why** their industry is being disrupted – the nature of the transformation and the disruption they face – rather than the specific companies that are initiating the disruption.

In this respect, although digital is 'new', the basic principles of supply, demand and market dynamics can still help to explain digital disruption and the conditions in which it occurs. In their report 'The economic essentials of digital strategy', McKinsey summarise the potential impacts that 'digital' could have as follows:

Unconstrained supply	Digital technology has reduced transaction costs and therefore sources of supply that were previously impossible (or at least uneconomic) to provide now become accessible.
Remove distortions in demand	Digitisation removes distortions in demand by giving customers more complete information about products, and by unbundling aspects of products and services that were previously combined by necessity or convenience. For example, consumers might always have preferred to buy individual songs. Digital formats allow them to download or listen to individual tracks, but previously they had to buy whole albums because that was the most valuable and cost-effective way for providers to distribute music (on CDs).
	Alternatively, in some cases, digitisation may lead to re-bundling of products or services which were previously kept separate.
Make new markets	Digitisation facilitates new (cheaper and easier) ways to connect supply and demand, in the light of supply constraints and distortions in demand being removed. AirBnB has not constructed new buildings; it has brought people's spare bedrooms into the market. In the process, it uncovered consumer demand for greater variety in accommodation choices, prices and lengths of stay. More generally, as constraints over supply and demand are removed, in order for organisations to remain competitive, they need to give customers what they want, in new, more efficient ways.
Create new and enhanced value propositions	As markets evolve, customers' expectations increase. Companies meet those heightened expectations with new value propositions – extending product and services through digital features, digital or automated delivery and distribution models. In some cases, the new value propositions include giving people what they didn't even realise they wanted. For example, few people could have explicitly wished to have the internet in their pockets – until smartphones presented that possibility. Many of these new propositions, linking the digital and physical worlds, exploit connectivity and the abundance of data. For example, Google's Nest enables people to control their home thermostats from their smartphones; FedEx gives customers real-time insights into the progress of their deliveries.
Reimagined business systems	Delivering the new value proposition requires companies to rethink, or reimagine, the business systems underlying them. New entrants can surprise incumbents by introducing completely different ways to make money. For example, for many years, hard-drive makers sought to develop increasingly efficient ways to build and sell storage. Then Amazon (among others) entered the market, and transformed storage from a product to a service, and Dropbox exacerbated the change by offering free online storage – thereby disrupting the established value structure of the storage industry.

Hyperscale platforms	Companies like Amazon, Apple, Tencent, Google, Alibaba and Rakuten Ichiba blur traditional industry definitions by spanning product categories and customer segments. By offering a range of different products and services, these companies are able to offer customers a unified value proposition that extends beyond what they could previously obtain from one interface. However, the scale of their operations also enables these companies to gather more information about their customers. Building up enterprise-wide information about their customers enables them to optimise the products and services they provide, and helps them offer an integrated digital experience. However, the companies can potentially also use this data to identify opportunities to move into new sectors (for example, Amazon moving into the grocery market, with Amazon Go). Moreover, these data-driven companies may, potentially, already have more information about the customers in a sector they are moving into than some of the existing companies in that sector.
	The emergence of hyperscale companies across different industries and markets also means that incumbents in a particular market need to be prepared for potential moves by players outside their own industries. For example, camera makers suffered as a result of the smartphone revolution. One of the potential consequences of the 'hyperscale' model is that – in future – companies may define their business models, not in terms of how they perform against traditional industry peers, but by how effective they are in competing within wider 'ecosystems' comprising a variety of businesses from different sectors.

McKinsey's article also highlights another significant consequence of digitisation: consumers have come to expect best-in-class user experiences from all their online and mobile interactions. As such, customers no longer compare a company's online offerings with those of their direct rivals, but with – for example – Apple, or Amazon. Customers develop expectations about speed, convenience, and ease of use from these companies which are leaders in customer experience, and increasingly expect a similar quality of experience across all the products and services they buy, regardless of industry.As such, factors which could influence the success of a firm's digital offering (or which a digital disrupter could offer if existing incumbents do not offer them) are:

- improved search and filter tools
- streamlined and user-friendly order processes
- smart recommendation engines
- Customised bundling of products or services

Increasing penetration of the internet and smartphones means consumers are also becoming increasingly used to a world in which they have access to products and services at any time, and 'on- demand'. Therefore, another factor which could determine a company's success is how effectively it is able to deliver what 'on-demand customers' want.

6.5.1 From 'products and services' to 'experiences'

Another consequence of digitisation is that the quality of the goods and services a company offers is often no longer a sufficient basis to differentiate that company from its competitors. Companies increasingly use digital technologies to offer customers unique experiences. The quality of their core offering remains important, but these experiences are an increasingly important differentiator (eg, 'smart' sensors for 'connected' products – thermostats; fridges – around the home).

Context example: Monsanto Climate FieldView

Monsanto is an agricultural products company, but it has expanded beyond its traditional product portfolio to offer farmers targeted intelligence to improve crop yields, through its 'FieldView' platform.

Monsanto acquired the Climate Corporation in 2013, giving it access to hyperlocal, sensor data about soil and weather conditions. Monsanto uses this information, along with external data such as market prices and inventory levels, to offer targeted intelligence to farmers in real time, to support their strategic and operational decision-making (eg, when faced with drought or other adverse weather conditions).

Farmers benefit from higher yields, a lower risk of crops failing, and higher profitability. However, the data about crop patterns, weather forecasts and yields also helps Monsanto develop better farming products, and to offer a more personalised experience to farmers.

Source: World Economic Forum (2016) *Beyond products and services: The importance of experiences*, [Online] Available from: http://reports.weforum.org/digital-transformation/beyond- products-and-services-the-importance-of-experiences

6.5.2 From 'ownership' to 'access'

Another significant way technology has redefined industries is that customers no longer need to own a product in order to benefit from it; instead they can access products or services when they want to.

For example, film streaming services (such as Netflix) mean consumers no longer need to own DVDs. Similarly, music download sites mean consumers no longer need to own CDs.

This shift from ownership (buying) to access (or sharing) models can have a very significant impact on traditional revenue models. For example, car manufacturers could see a significant downturn in revenue if customers use on-demand transportation services (eg, Lyft) rather than owning their own cars.

Context example: BMW DriveNow

The car manufacturer, BMW has responded to the shift from 'ownership' to 'access' – by setting up its own car-sharing service: DriveNow.

DriveNow, which is available in a number of European cities, gives users on-demand access to BMW electric cars, based on a principle of 'pick up anywhere, drop off anywhere'. Customers are billed by the minute, with fuel costs, and parking charges in public car parks included in the bill.

Although the DriveNow service could potentially cannibalise sales of new BMWs, the company feels the scheme is a necessary strategic move to meet customers' preference for access over ownership, and it also has the potential to expand the company's customer base (eg, people who use DriveNow but who would not buy a BMW).

Source: World Economic Forum (2016), *What the sharing economy means for incumbents* [Online] Available from: http://reports.weforum.org/digital-transformation/what-the-shift-from-ownership-to- access-means-for-industries

6.5.3 Platform-based business models

One further potential impact of 'digital reinvention' is the growth of platform-based business models, rather than product-based ones.

In traditional, product-based business models, a company makes a product which it then sells to customers, and the company's success depends on the characteristics of its product. However, platform-based business models work by bringing participants together (typically producers and consumers) – rather than by a company selling a product or service itself.

Examples of platform-based businesses include: AirBnB, Amazon, Facebook, Google, Uber. Instead of controlling the 'means of production' these companies create the 'means of connection'.

For example, AirBnB brings together people looking to rent rooms (in effect, consumers) and people offering available rooms. AirBnB doesn't create and control any inventory itself. Instead, the success of its business model depends on the quality of its platform – for example, in terms of the number of participants (producers, and consumers) it can attract, and the ease of finding appropriate rooms.

In Strategic analysis, we mentioned the concept of business ecosystems, and these are typically platform-based, with the platform provider (eg, AirBnB, Uber) providing the environment that enables the ecosystem to operate (eg, by providing a platform which matches buyers and sellers).

6.6 Cloud accounting

We mentioned earlier that AI is only as effective as the data it learns from, so maintaining high quality data will be very important in developing a successful AI platform.

More generally, however, organisations also need high quality data in order to help them make effective strategic decisions, and to evaluate performance. One of the ways which companies have been changing the way users can get access to financial information is by using cloud accounting software.

We will discuss cloud computing in more detail in Information strategy, but cloud accounting software changes the way organisations store and manage financial data. Instead of storing and processing data on the organisation's internal servers alone, data is now sent 'to the cloud' – meaning it is stored, and can be accessed, remotely.

Definition

Cloud computing: the delivery of on-demand computing resources – everything from applications to data centres – over the internet on a pay-for-use basis. (IBM)

Importantly, the use of cloud accounting software can help to address some of the problems which organisations could experience with traditional accounting software, in particular:

- It only works on one computer, or a small number of computers. Data has to be manually transferred (eg, on a USB drive) which is not a secure or a reliable process.
- Only one person, or a small number of people, have access to data. Key stakeholders cannot access financial or customer information on a timely basis.

By contrast, key stakeholders (eg, the Managing Director or Operations Director) can use cloud- based software from any device with an internet connection, meaning it is much easier for managers to stay connected to their data (and to an organisation's accountants).

Moreover, using cloud technologies can also provide operational benefits for an organisation. In effect, using cloud technologies could be seen as similar to outsourcing software services. Therefore, by using a cloud-based system an organisation's technology team can focus on high value tasks, because the 'service' (cloud) provider takes care of the more routine tasks.

Ensuring an organisation's technology team has capacity to focus on high value tasks could be particularly important in relation to designing and implementing a digital strategy.

Summary

Summary point	Tick off
Once an organisation has assessed its current strategic position, it needs to choose what strategies to pursue in order to achieve its goals and objectives.	☐
How to compete: An organisation has to decide the generic type of competitive strategy it wants to pursue as the basis for its competitive advantage – cost leadership or differentiation.	☐
Although Porter's generic strategy model is a key theory in business strategy, alternative models (eg, strategy clock) suggest that there are a wider range of strategies an organisation can pursue successfully than Porter's model suggests (eg, hybrid strategies).	☐
Product-market strategy (Ansoff's matrix): An organisation needs to decide what combination of existing or new products/services, in existing or new markets, it wants to offer in order to achieve strategic growth.	☐
Method of growth: Once an organisation has decided what growth strategies to pursue it has to choose whether to develop its business itself (organic growth), to acquire an existing firm, or to cooperate in some way with another firm (eg, joint venture, franchise).	☐
When considering how appropriate a strategy is for it to pursue, an organisation needs to evaluate the suitability, acceptability and feasibility of the strategy. It should also consider the sustainability of the strategy.	☐
In order to make an informed decision about what course of action to pursue, businesses need reliable information. This can be a particular issue in relation to acquisitions or mergers, hence the importance of due diligence.	☐
The level of sales offered by new market opportunities could be a key driver for international expansion, but international expansion could also be driven by cost or competence-led factors (eg, cheap labour).	☐
Before expanding internationally, an organisation should consider: the attractiveness of the market, whether it will be able to establish a competitive position in the market; and the risks attached to entering the market.	☐
An organisation also needs to consider its strategy for entering a foreign market – eg, exporting, or setting up local production facilities.	☐
International expansion could have a significant impact on an organisation's financial statements, as a result of translation gains and losses.	☐
Another way organisations can look to grow is through developing digital strategies – applying new (digital) technologies to products and processes, particularly in relation to the way they interact with customers.	☐
However, while digitisation can be an opportunity for organisations to grow, it can also present a threat – as new digital entrants disrupt existing industries.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are features and limitations of each of Porter's generic strategies? (Topic 1)
2.	What are the benefits and problems of expansion methods such as acquisitions/mergers, joint ventures and franchising? (Topic 2)
3.	How can the criteria suitability, acceptability and feasibility be used to evaluate strategic options? (Topic 3)
4.	What are the value for money criteria used by the not-for-profit sector to assess the acceptability of a strategy? (Topic 4)
5.	What are the potential reasons behind a firm's decision to expand overseas? (Topic 5)
6.	How can a firm utilise technological developments to develop a digital strategy and remain competitive? (Topic 6)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
1 SJB	This question requires you to use the scenario and your knowledge of Ansoff's matrix to provide examples of potential future business strategies. In addition, you are asked to consider the advantages and disadvantages of a proposed acquisition. You should use commercial awareness and your knowledge brought forward from Business Strategy and Technology.
2 Ambion	In the exam, you may be required to combine an assessment of financial and non-financial factors when evaluating a strategic proposal. This question requires you to use financial performance data and other scenario information to appraise an acquisition target.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Technical reference

1 IFRS 11, *Joint Arrangements*

- Details the issues which should be considered when determining the appropriate financial reporting treatment for joint ventures and joint operations, and specifies the accounting treatment for both kinds of joint arrangements.

2 IAS 28, *Investments in Associates and Joint Ventures*

- Outlines the accounting for investments in associates and joint ventures, where an associate is an entity over which an investor has significant influence but not control or joint control, and a joint venture is as determined in IFRS 11.

3 IAS 21, *The Effects of Changes in Foreign Exchange Rates*

- IAS 21 prescribes how to include foreign currency transactions and foreign operations in the financial statements of an entity, and how to translate financial statements into a presentation currency. The principal issues are which exchange rate(s) to use, and how to report the effects of changes in exchange rates.

4 IFRS 9, *Financial Instruments*

- Outlines the requirements for the recognition and measurement of financial assets, financial liabilities, and some contracts to buy or sell non-financial items.

Self-test questions

Answer the following questions.

1 SJB

SJB is a publicly listed UK company consisting of three divisions: leisure, engineering and financial services. The three divisions have similar-sized revenues and employ, in total, 900 people. The only division that is currently profitable is engineering, which has not been affected by the severe downturn in consumer spending that started three years ago (in 20X1) and is still continuing. The UK Government has forecast that consumer spending will not recover to its 20X0 levels for at least another four years. This reduced level of consumer spending has impacted very detrimentally on SJB's leisure and financial services divisions.

SJB's corporate strategy has been to 'buy any business where SJB's exceptional management skills give an opportunity to earn exceptional profits'. However, this strategy has recently been called into question as, since the start of the recession in 20X1, SJB's cash reserves have been exhausted. It no longer makes a profit and its share price has declined by 80% from its historic high in 20X0. SJB's board is finding it difficult to manage its business because of the very different nature of the three divisions' activities, which means that they are subject to different external environmental influences.

Recently, the board of SJB has been considering the future direction of its business. It has an opportunity to acquire a large engineering company, HAL, which is in financial difficulties. HAL currently employs 500 people. If SJB made this acquisition it would become the largest engineering business, in terms of revenue, in the UK. It would also have a substantial export business, which it does not currently have.

The board of SJB has been reviewing its current organisational structure and has decided to divest itself of the leisure and financial services divisions. The purpose of this corporate reorganisation is to achieve a more concentrated business focus and a return to profitability.

Requirements

1.1 Advise the board of SJB of the future strategic directions available to it, as indicated by Ansoff's product-market scope matrix. For each of the cells in the matrix, give an example of a strategy SJB could use to carry out each of the future strategic directions.

1.2 Discuss the potential benefits and disadvantages of the possible acquisition of HAL.

2 Ambion

Ambion is the third largest industrial country in the world. It is densely populated, and its residents enjoy a high standard of living. Joe Swift Transport (known as Swift) is the largest logistics company in Ambion, owning 1,500 trucks. It is a private limited company with all its shares held by the Swift family. It has significant haulage and storage contracts with retail and supermarket chains in Ambion. The logistics marketplace is mature and extremely competitive, and Swift has become market leader through a combination of economies of scale, cost efficiencies, innovative IT solutions and clever branding. However, the profitability of the sector is under increased pressure from a recently elected government that is committed to heavily taxing fuel and reducing expenditure on roads in favour of alternative forms of transport.

It has also announced a number of taxes on vehicles that have high carbon emission levels, as well as reducing the maximum working hours and increasing the national minimum wage for employees.

The company is perceived as a good performer in its sector. The 20X9 financial results reported a return on capital employed of 18%, a gross profit margin of 17% and a net profit margin of 9.15%. The accounts also showed a current liquidity ratio of 1.55 and an acid test ratio of 1.15. The gearing ratio is currently 60% with an interest cover ratio of eight.

Ten years ago the northern political bloc split up and nine new independent states were formed. One of these states was Ecuria. The people of Ecuria (known as Ecurians) traditionally have a strong work ethic and a passion for precision and promptness. Since the formation of the State, their hard work has been rewarded by strong economic growth, a higher standard of living and an increased demand for goods that were once perceived as unobtainable luxuries. Additionally, since the formation of the State, the Government of Ecuria has pursued a policy of privatisation. It has also invested heavily in infrastructure, particularly the road transport system, required to support the increased economic activity in the country.

The State haulage operator (EVM) was sold off to two Ecurian investors who raised the finance to buy it from a foreign bank. The capital markets in Ecuria are still immature and the Government has not wished to interfere with or bolster them. EVM now has 700 modern trucks and holds all the major logistics contracts in the country. It is praised for its prompt delivery of goods. Problems in raising finance have made it difficult for significant competitors to emerge. Most are family firms, each of which operates about 20 trucks making local deliveries within one of Ecuria's 20 regions.

These two investors now wish to realise their investment in EVM and have announced that it is for sale. In principle, Swift is keen to buy the company and is currently evaluating its possible acquisition. Swift's management perceive that their capabilities in logistics will greatly enhance the profitability of EVM. The financial results for EVM are shown in Figure 1. Swift has acquired a number of smaller Ambion companies in the last decade, but has no experience of acquiring foreign companies, or indeed, working in Ecuria. Joe Swift is also contemplating a more radical change. He is becoming progressively disillusioned with Ambion. In a recent interview, he said that, 'Trading here is becoming impossible. The Government is more interested in over-regulating enterprise than stimulating growth'. He is considering moving large parts of his logistics operation to another country and Ecuria is one of the possibilities he is considering.

Extract from 20X9 financial results: EVM Extract from the statement of financial position

	A	B
1		$m
2	Assets	
3	Non-current assets	
4	Intangible assets	2,000
5	Property, plant and equipment	6,100
6		8,100 [1]
7	Current assets	
8	Inventories	100

	A	B
9	Trade receivables	900
10	Cash and cash equivalents	200
11		1,200 [2]
12	Total assets	9,300 [3]
13		
14	Equity and liabilities	
15	Equity	
16	Share capital	5,700
17	Retained earnings	50
18	Total equity	5,750 [4]
19		
20	Non-current liabilities	
21	Long-term borrowings	2,500
22	Current liabilities	
23	Trade payables	1,000
24	Current tax payable	50
25		1,050 [5]
26	Total liabilities	3,550 [6]
27	Total equity and liabilities	9,300 [7]

[1] =SUM(B4:B5)

2 =SUM(B8:B10)

3 =B6+B11

[4] =SUM(B16:B17)

5 =SUM(B23:B24)

[6] =B21+B25

7 =B18+B26

Extract from the statement of comprehensive income

	A	B
28		**$m**
29	Revenue	20,000
30	Cost of sales	(16,000)
31	Gross profit	4,000 [1]
32	Administrative expenses	(2,500)
33	Finance cost	(300)
34	Profit before tax	1,200 [2]
35	Income tax expense	(50)
36	Profit for the year	1,150 [3]

[1] =SUM(B29:B30)

[2] =SUM(B29:B30)

[3] =SUM(B31:B33)

Requirement

Assess, using both financial and non-financial measures, the attractiveness, from Swift's perspective, of EVM as an acquisition target.

3 Two Wheels

Two Wheels is a private UK company founded 75 years ago that produces bicycles for the general market. It is managed by Darius Young, the grandson of its founder. The shares are totally owned by the family, with Darius and his wife controlling just under half the shares, the rest being held by other members of the family. When the company was founded, the bicycles were targeted mainly at people who could not afford to buy motor vehicles – then a relative luxury – but who needed transportation to get them to work or for local travel. Initially, the company was a regional producer focusing on markets in Central England but, over the next 75 years, Two Wheels transformed itself

into a national company. Two Wheels took advantage of changes in fashion and periodically introduced new models focusing on different market segments. Its first diversification was into making racing bicycles, which still account for 16% of its volume output. Most of these bicycles are very expensive to produce. They are made of specialist lightweight metals and are often custom-built for specific riders, most of the sales being made on a direct basis. Members of amateur cycling clubs contact the company directly with their orders and this minimises distribution costs, so making these machines more affordable to the customers. Two Wheels' reputation has been enhanced by this highly profitable product. The company has seen no reason to change its branding policy and these products are still sold under the 'Two Wheels' brand name.

During the 1980s, the company responded to the demand for more sporty leisure machines. Mountain bikes had become the fashion and Two Wheels designed and produced some models which appealed to the cheaper end of the market. These products, although robust and stylish, were relatively cheap and were aimed at families with teenage children and those who could not afford to spend large sums of money on the more sophisticated models. The company is currently selling nearly 30% of its output to this market segment. Most of the sales are through specialist bicycle shops, although about 25% of these mountain bike sales are made through a national retail chain of bicycle and motor vehicle accessories stores. Apart from those sold via this retail network, under the retail brand name, the mountain bikes were also sold under the Two Wheels brand. With the advent of fitness clubs, the company saw an opening for the provision of cycling machines for the health club and gymnasium market. These machines were sold at a premium price but they still accounted for only 4% of total volume sales of the company. The main product group for the company was still its basic bicycle – it is the entry model for most families who are buying bicycles for teenagers and for those people who still use bicycles as a means of transportation, seeing them as distinct from entertainment or fun machines. The product is standardised, with few differentiating features, and as such can be produced relatively cheaply. About 80% of this segment is sold through the same national retail chain mentioned above with reference to mountain bike sales. These bicycles, in fact, are built for the retail chain and marketed under their brand name. This appears to be advantageous to Two Wheels because it guarantees them a given level of business without their being responsible for either distribution or promotion. This segment, however, is now seeing increasing competition from cheaper overseas imports.

The company had historically made reasonable profits and most of these were reinvested in the company's production facilities, increasing capacity substantially. However, throughout the late 1990s, Two Wheels has seen its market being eroded. Sales have fallen gradually, mainly because the total UK market for bicycles has been in decline, but also because of increased competition from foreign suppliers. The high value of sterling has encouraged imports. Surprisingly, during this period Two Wheels actually increased its share of domestic output. This is due to the fact that it has been prepared to accept lower margins so as to maintain sales and, in addition, a few UK producers had decided to exit the market and move into other, more attractive product lines. By early in the year 20X8, the company has seen its profits continue to fall. It now has a debt to the bank of £7 million, having been unable to pay for all recent, new capital expenditure out of retained earnings. (Table 1 gives some financial information about the recent performance of Two Wheels.)

There are now very few UK manufacturers of bicycles that concentrate solely on producing bicycles. Most have a diversified portfolio and can count on other product groups to support the bicycle sector when demand is poor. However, Two Wheels has continued to focus entirely on this specialised product range. It is surviving basically because it has built up a strong reputation for reliable products and because the Young family has, until recently, been content with a level of profits which would be unacceptable to a public company that had external shareholders to consider. However, it is now becoming apparent that unless some radical action is taken, the company cannot hope to survive. The bank will now only make loans if Two Wheels can find a suitable strategy to provide it with a higher and more acceptable level of profit. If the company is to retain its independence (and it is questionable whether any company will really want to acquire it in its current position) it has to consider radical change. Its only experience is within the bicycle industry and therefore it appears to be logical that it should stay in this field in some form or other.

Darius Young has examined ways to improve the profitability of the company. He is of the opinion that if Two Wheels becomes more successful, it could become a desirable acquisition for other companies. However, currently the company will not attract bidders unless it is at a low price. Darius has looked at the profile of his products and wonders whether any rationalisation could help to improve performance. He has also decided to look at the potential for overseas marketing. Having examined statistics on current world production and sales figures, he has identified that the real growth areas for bicycles are in the Far East. China alone supports a bigger market for bicycles than the whole of Europe and North America. India and Pakistan have also developed a significant demand for bicycles. Darius decided to visit some of these markets and he has returned full of enthusiasm for committing Two Wheels to operate in these Far Eastern markets or in India and Pakistan. While Darius considers that exporting from the UK might be a viable option, he has become increasingly attracted to manufacturing in the Far East, particularly in China. He believes that transportation costs could prove to be a disadvantage to exporting for Two Wheels. He estimates that costs for shipping and insurance could add about 20% to the final selling price. Furthermore, he is concerned about the discrepancy between labour costs in the UK and in China. Wage rates, including social costs in China, appear to be about 25% of those in the UK and these costs account for approximately 30% of the total production costs.

Darius has summoned a meeting of all the shareholders to persuade them to agree to plan to manufacture, or at least assemble, bicycles in China. The other shareholders are not quite so enthusiastic. They feel that this strategy is too risky. The company has never been involved in overseas business and now they are being asked to sanction a strategy which bypasses the exporting stage and commits them to significant expenditure overseas. Darius is convinced that the bank will lend them the necessary capital, given the attractiveness of these overseas markets. The other shareholders are more in favour of a gradual process. They want to improve the position within the UK market first rather than leap into the unknown. They also believe that diversification into other non-bicycle products might be less risky than venturing overseas. They know the UK market but overseas is an unknown area. Darius has decided that it is time he sought some professional advice for the company. A management consultant, Molly Dunn, has been retained. She is a qualified accountant who also has an MBA from a prestigious business school.

Information concerning Two Wheels's current sales and financial performance

Financial years to 31 March Mountain bikes	**20X6/20X7**	**20X7/20X8**	**20X8/20X9** (estimated)
Volume	27,000	24,000	22,000
Direct costs £'000	3,780	3,600	3,410
Revenue £'000	4,590	4,200	3,850
Standard bicycles			
Volume	45,000	40,000	36,000
Direct costs £'000	4,050	3,600	3,312
Revenue £'000 Racing bicycles	4,500	3,800	3,412
Volume	14,400	12,800	13,200
Direct costs £'000	7,560	7,360	7,986
Revenue £'000	10,080	9,280	9,900
Exercise bicycles			
Volume	3,600	3,500	3,450
Direct costs £'000	1,062	1,137.5	1,155.75
Revenue £'000	1,224	1,277.5	1,259.25

Indirect costs £'000:			
Distribution	282	290	362
Promotion	484	407	346
Administration and other costs	1,209	1,234	1,456
Interest on loan		560	560
Profit before tax £'000	1,967	369	(166.5)

Acting in the role of Molly Dunn:

Requirements

3.1 Write a report, evaluating the current strategies being pursued by Two Wheels for its different market segments, using appropriate theoretical models to support your analysis.

3.2 Identify and explain the key factors which should be taken into consideration before Two Wheels decides on developing manufacturing/assembly facilities in China.

3.3 Write briefing notes to the shareholders, explaining the advantages to the company of concentrating solely on the production of bicycles and also the opportunities that may be available by pursuing a strategy of diversification.

4 Frooli plc and Plenum Ltd

In response to pressure from investors for increased growth, the board of Frooli plc acquired Plenum Ltd on 1 September 20X8.

The board evaluated a number of companies carefully before selecting Plenum as their preferred acquisition target.

Frooli and Plenum are both construction companies, but in recent years Plenum's profit margins have been higher than Frooli's, and this was one of the factors which made it an attractive target. Prenum's asset turnover ratio has also been higher than Frooli's.

Frooli plc has made acquisitions in the past, but these have tended to be small. Plenum is significantly larger than any of these previous acquisitions, with its revenues and total assets being approximately one quarter that of Frooli's.

When announcing the acquisition, Frooli's CEO was bullish, saying it provided a significant opportunity for the group to strengthen its position in a competitive marketplace.

Performance indicators

Three of the key indicators which Frooli monitors in its financial statements are: operating profit margin; ROCE and asset turnover.

The CEO is now reviewing the consolidated financial statements for the year end, and is very concerned at the corresponding figures for Frooli's key indicators (shown below).

'The acquisition was meant to improve our performance, but that doesn't seem to be the case at all. How am I going to justify this to our investors?'

Financial years to 31 December	20X8	20X7
Operating profit margin (%)	28.3	28.1
ROCE (%)*	39.7	41.5
Asset turnover*	1.11	1.15

*When calculating ROCE, 'capital employed' is taken as an average of the figure at the beginning and end of the year. Similarly, when calculating asset turnover, 'total assets' is an average of the figure at the beginning and the end of the year.

Requirement

Evaluate the validity of the performance indicators in the table above for assessing the Frooli group's performance in the year to 31 December 20X8.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Choosing a competitive strategy

Porter's logic behind his generic strategies model is that a firm should follow only one of the generic strategies in order to achieve **competitive advantage**. According to Porter, if a firm tries to combine more than one of the strategies, it risks becoming '**stuck in the middle**' and losing its competitive advantage.

Applying these ideas could help the owners of BMK assess whether their restaurants are following a coherent competitive strategy – either individually or as a group – or whether they are becoming 'stuck in the middle'. If they are becoming 'stuck' in this way, the lack of a clear strategy might be contributing to the **decline in BMK's profits**.

Generic strategies

Porter suggests firms should choose a potential strategy based on one of three generic strategies: cost leadership, differentiation or focus.

Cost leadership – If BMK chooses to become a cost leader, it must ensure it has the lowest costs in the industry as a whole. By having a lower cost base than its competitors, BMK could achieve a greater profit than them, even if its sales prices were the same as theirs.

Although this aspect of Porter's strategy focuses primarily on cost rather than price, it appears that BMK's **restaurant near the railway** is pursuing this kind of strategy, since it claims to be 'the cheapest in town'. However, to maintain its profitability, the restaurant must ensure it can continue to keep its cost base lower than any of its competitors' cost bases.

Differentiation – If BMK chooses a strategy of differentiation, it must deliver a product or service that the industry as a whole believes to be unique. As a result of this uniqueness, BMK will be able to charge its customers a **premium price**.

It appears that the extremely expensive 'fine dining' **restaurant** in the historic country house is charging a premium price in this way. However, to maintain its profitability, the restaurant must ensure it maintains its distinguishing features – be they the quality of the menu, the service, or the ambience. These features are what differentiates the restaurant from others in the industry and make it attractive to customers, even though it is charging a premium price.

Focus – A focus strategy will involve segmenting the industry, such that BMK would then pursue a strategy of cost leadership or differentiation within a single segment of the restaurant industry.

Three of BMK's restaurants seem to be following this type of strategy and tailoring their offering to a specific **market niche**: the barge restaurant specialising in fish dishes; the **steak house**; and the restaurant catering for **children's birthday parties**.

Stuck in the middle – BMK has eight restaurants in total. We have identified five of them as following one or other of Porter's generic strategies, but this means the other three – with conventional menus and average prices – are likely to be stuck in the middle.

In this respect, BMK needs to look urgently at finding a way of establishing a competitive advantage for these three restaurants. This should allow them to improve their profitability.

Strategy and marketing

We do not know whether all the restaurants in the chain are branded unilaterally as BMK restaurants, or whether they have retained their own names as well as their own styles and prices. If BMK is trying to run the restaurants as a single group, under a single brand name, then the analysis of the restaurants' current position indicates that the **group as a whole is at risk of being 'stuck in the middle'** due to the diversity of its strategies.

In this respect, Porter's generic strategies model suggests that BMK would be best advised to run the restaurants as separate business units, and to develop marketing strategies which support each restaurant's individual characteristics.

However, even if BMK chooses to do this, it still needs to consider whether the restaurants' current strategies can deliver a **sustainable competitive advantage**. For example, the prices of foodstuffs and drinks are rising in BMK's country, which will increase its cost base. So, how sustainable is a cost leadership strategy, particularly as there is little evidence of specific technologies or processes that will allow BMK to sustain a lower cost base than any of its competitors?

Given the overall economic context in which BMK is operating, BMK's owners might decide that Porter's **focus strategies** (either cost-focus, or differentiation-focus) offer them the most practical way of maintaining or improving the profitability of their restaurants.

Answer to Interactive question 2

Strategy 1 is a strategy of **market development**, involving the establishment of more luxury hotels in new geographical locations. The cost of investment is likely to be high, and at the moment profit margins in the luxury hotels business are low. The potential return may not justify the risk in the strategy.

Strategy 2 is a strategy of either **product development** – opening a range of three-star hotels, but targeting the same group of customers as for the five-star hotels – or **diversification** – opening a range of three-star hotels for a new set of target customers. It is probably more likely that the company would need to target a different group of customers from those that use five-star hotels, even though some individuals and businesses may be switching to cheaper hotel accommodation in order to economise. Management has no experience of running three-star hotels, and a diversification strategy could involve excessive risks.

Strategy 3 is a **diversification** strategy. There may be good business opportunities in recreational centres in East Asia, but the management of Sleepway does not appear to have any experience of running any businesses other than hotels. The golf and country clubs may follow a different business model to hotels.

Recommendation

All three strategies involve risk, and although Strategy 1 is the lowest risk, returns from this strategy may be unsatisfactory. The CEO is expecting economic recovery in the next few years, but opening three new hotels could be a gamble. Without more information it is difficult to make a recommendation, but all three strategies would involve a big expansion of the business for a company that currently has only nine hotels.

All three options may well be beyond the resource capabilities of the company, and any strategy for growth should be less ambitious. A more conservative approach of seeking to open one more luxury hotel may be the most appropriate option for this company, but this recommendation should be subject to further analysis.

Answer to Interactive question 3

Cash flow guarantee from venture capital company

Suitability

BBB's main weakness is a shortage of cash, and the guarantee from the venture capitalists will ensure there are sufficient funds to allow BBB to continue until the first drug is successfully launched in commercial quantities.

The injection of cash will not, in itself, add to BBB's strengths, but assuming the new drug proves commercially successful the funding could allow BBB a competitive advantage, which it would have otherwise been denied.

The venture capitalists have only agreed to guarantee BBB's funding until the first drug is successfully launched, and so there may still be question marks about the **longer-term funding requirements** between that launch and BBB's flotation, unless cash inflows from the launch of that drug are sufficient to support the business's cash needs.

However, to the extent that the venture capitalist **funding will meet cash needs** in the short to medium term and bring at least one new drug to market, this option is suitable.

Acceptability

Venture capitalist

This plan will see a significant rise in the venture capitalist's shareholder in the company – from 15% to 60%. As the venture capitalists have proposed the plan, we can assume it is acceptable to them.

Founders

However, the increase in the venture capitalist's shareholding will mean that the founders' stakes in the company are significantly reduced. This may not be acceptable to the founders, particularly in the context of any profits they might make when the company is floated in five years' time.

Employees

Similarly, the plan will not be acceptable to the employees because it will reduce the numbers of shares available to them through their share option scheme. Currently, the employees are prepared to accept relatively low salaries because they will receive shares in the company when it floats.

However, if this option is removed, they are likely to either want higher salaries, or will leave the company altogether. If too many employees leave, BBB's ability to develop its new drug may be jeopardised.

Feasibility

This option does not, in itself, affect the internal resources of the company, so there are no problems about its feasibility.

Purchase by pharmaceutical company Suitability

This option will allow at least some of the drugs that BBB is working on to be brought to market, but not by BBB as a company in its own right.

Given the founders' intention to float the company on the stock exchange, it seems likely that one of the strategic goals was to run BBB as an independent company. From that perspective, the outright purchase by another company is not a suitable option.

Acceptability Venture capitalists

This option is unlikely to be acceptable to the venture capitalists, not least because they have proposed an alternative option. However, possibly more importantly, they are unlikely to be happy that whereas they invested in BBB expecting to see significant returns when it successfully launches its first new drug, they will no longer get the benefit of these returns. We do not know the terms of the deal under which the pharmaceutical company has offered to buy BBB (for cash, or for shares) but either way, it is unlikely that the venture capitalists will receive the same returns as they would if BBB had successfully launched the new drug as an independent company.

Founders

This option **may not be acceptable to the founders** either because, while they currently have the independence and status of being their own bosses, under the new structure they will simply be employees (researchers) in a much larger company. If the large company offers the founders a favourable price to acquire BBB now (rather than them having to wait five years to benefit from the flotation) the relative acceptability of this option may be increased. However, this will probably be unlikely – especially if the larger company is aware of BBB's cash flow problems.

Employees

The employees will be concerned about the acquisition because the larger pharmaceutical company **only intends to retain 'a few of the staff'**. Therefore, there is a risk that some of the current employees will be made redundant, which will not make this an acceptable option for them.

The other issue for all the employees to consider is that they will lose the potential benefits accruing from BBB's share option scheme in the event of it floating. However, if the larger company offered them higher base salaries than BBB did, they may be prepared to accept the security of a higher salary instead of the potential benefits of the share option scheme.

Feasibility

There are no problems with the feasibility of this option. **Merger with another biotechnology company Suitability**

Because the other biotechnology company's new drug will be launched in six months' time, this will provide **a short-term cash injection** to support BBB until its first new drug is launched.

However, whereas BBB is then expecting to launch one new drug in most subsequent years, the other company is not expecting to have any other new drugs commercially available for another five years. Therefore, it is **debatable whether the other company has the same strength in developing new drugs** as BBB. If the merger effectively means that the other company provides a short-term cash injection in return for piggy-backing on BBB's competences in the longer term, then that is unlikely to be a suitable option for BBB.

Acceptability Venture capitalists

Again, this option is **unlikely to be acceptable** to the venture capitalists, because it would mean BBB rejects the option they have proposed. Also, the merger would **dilute the venture capitalist's share** in the new company, which is unlikely to be acceptable.

Founders

As with the acquisition by a larger company, the merger would reduce the founder's independence and autonomy, because the directors of the other company would now be jointly responsible for business decisions and strategy. This change may not be acceptable to BBB's founders. Moreover, there is no indication of how long the founders would be expected to stay with the newly merged company. If they are expected to remain for a long time, they may find this restrictive.

Also, there is no indication as to whether the newly merged company would still look to float in five years' time. If it would not, this again may be undesirable for BBB's founders.

Employees

The merger is very unlikely to be acceptable to the employees, because the rationalisation of the workforce will mean that some **employees are made redundant**.

Also, if the newly merged company does not intend to float, the employees who remain will **lose the potential benefits from the share option scheme**. It is possible that they may be offered higher base salaries to compensate for this, but this appears unlikely since the other company has fewer new drugs in the pipeline than BBB and so **ongoing cash** flow **could still be a problem** for the business.

Feasibility

The feasibility of this option will depend on how similar the R&D practices of the two companies are. The merger is the only option that will involve the integration **of the systems from two different companies**. This could mean that there are some significant changes to BBB's operating systems, and the **time taken** to complete the merger could also be an issue.

In addition, BBB's founders have **no experience of managing a merger** process, which could increase the risk of the merger being unsuccessful

Answer to Interactive question 4

Note: You were asked to evaluate four strategies, and the following suggested solution evaluates four strategies involving external partners. However, a fifth alternative you could have suggested would be organic growth in which DD sets up operations of its own in the target countries.

Agency agreements

DD could continue to manufacture its products in its own factories in its home country, and then **export** the products to its target countries. In such a scenario, DD could also use local **sales and marketing agents** in the target countries to promote demand for its product.

Advantages

Relationships – It is likely that the police forces in DD's target countries will be funded by their governments. Therefore, if DD selects agencies that already have established relationships with the relevant government departments in a country, it could increase its chances of making sales in that country.

Simple – This is a relatively simple strategy, and also one that allows DD to maintain control over the manufacturing standards and quality of its product.

Low capital requirement – There will be no need for DD to acquire premises or employ staff in the target countries, which could be a particular benefit in the early stages of expansion, before DD establishes how lucrative the market in each country might be. If a market turns out not to be as lucrative as DD had hoped, it can withdraw from that market relatively cheaply because it will not have invested any capital there.

Equally, DD will not need to develop any in-depth knowledge of the business practices and customs in its target countries because agents will already have this local knowledge.

Disadvantages

Reliance on agency – DD will be totally reliant on the agency to generate sales for it, but if the agency doesn't devote much time and effort or resources to promoting DD's product, then this approach will not be able to generate the '**rapid growth**' the MD wants.

Licence agreement

Note: A licence agreement would seem to be more appropriate than a franchise agreement in this context, because DD is dealing with a tangible product rather than a business concept.

Under a licensing agreement, a company in the target country could manufacture DD's product using components supplied by DD, and using DD's manufacturing process.

In order for licensing to be a successful strategy, DD will need to find a suitable company in the target country that could manufacture the product to the appropriate standard, and then market and sell the product effectively. The scenario doesn't give any indication of how easily DD would be able to find such a licence partner, but without one, this strategy would not be viable.

However, if DD can select a licensee that already has established relationships with the relevant government departments in a target country, DD's sales opportunities should benefit from this.

Advantages

Quick to implement – DD would not need to build its own factory in the target country, nor employ any staff there, so the strategy does not impose any resource constraints on DD, and could therefore be implemented relatively quickly.

Disadvantages

Profit sharing –The board of directors are keen to see both revenue and profits grow rapidly. A potential drawback of this strategy is that the licensee is likely to require a larger proportion of the profit than an agent would, because the licensee is adding value to the products by manufacturing them.

Intellectual property – Another concern relates to preserving DD's **intellectual property**. Not only is DD's equipment protected by patents, but its manufacturing process also contains some sophisticated technology. Although DD is likely to require any licensee to sign a confidentiality agreement before a licence is granted, there is still a risk that the licensee may be able to use the knowledge it gains about DD's product and processes to develop its own competitor products in time. The emergence of a potential competitor in this way could adversely affect DD's ability to sustain revenue and profit growth.

On this basis, even if a suitable licensee company could be found, licensing doesn't appear to be an attractive strategy.

Joint venture

DD could establish a joint venture with an existing company in its target markets, and the joint venture would manufacture and market DD's product in those markets.

Advantages

Influence – A joint venture (JV) arrangement will allow DD to have a much stronger influence over the manufacturing and marketing process than a licensing arrangement because some of DD's own employees will be involved with the JV.

DD's greater involvement in the operation will also help it **develop its own knowledge** of the market in the target country, and in doing so may help DD identify additional new product or market opportunities which may allow further revenue growth.

Similarly, DD's active involvement in the JV will help DD to **identify problems more quickly** than would be the case under an agency or licensing agreement.

Disadvantages

Profit sharing – DD will have to share the profits from the JV with its venture partner. The percentage split is likely to reflect the division of responsibilities between the venture partners, so if DD's partner takes on the bulk of the responsibility for manufacturing and marketing, that partner might also expect the majority share of the proceeds. This may prove contrary to the aim of maintaining DD's profit growth.

Knowledge transfer – The directors may also be concerned about the degree of knowledge transfer about DD's products and processes to the venture partner. As with a licensee, there is a risk that the venture partner could use the JV as a means of finding out about DD's intellectual property and then set itself up as a competitor in future.

Capital costs – It is likely that any capital costs (for example, for new plant and equipment) will have to be jointly funded by DD and its venture partner. Therefore, a joint venture is likely to require greater capital investment by DD than either an agency agreement or a licence. Also, if the venture proves unsuccessful, DD would have greater financial exposure to losses than it would have under either of these two methods of expansion.

Acquisition

DD may decide that, rather than working in partnership with another company, it would prefer to acquire an existing company in its target country outright and introduce its own manufacturing capability into that company to deal with local demand for its product.

Advantages

Control – DD will not be working with a JV partner or a licensee so it would **retain full control** of its technology, thereby reducing the risk of knowledge being transferred out of the company to any potential future competitor.

Moreover, DD would retain full control of the manufacturing, quality, marketing and sales processes in the organisation.

In this respect, establishing a wholly owned subsidiary in a country could be strategically important. If DD subsequently wants to export to other surrounding countries, this operation would provide a useful base for doing so.

Retains profits – Moreover, DD would not have to share any of the proceeds of the business with any other partners.

Disadvantages

However, there are a number of potential concerns with this strategy:

- **Target company** – DD would have to identify a suitable target company that was willing to be acquired, and it would then have to manage the acquisition and integration of that company into the 'DD Group'. There is no indication that DD has made any acquisitions before, and the company's inexperience will add to the risk involved in this strategy.
- **Cost of acquisition** – DD needs to consider the costs involved. If it buys a relatively successful company, then the purchase price is likely to be high. If it buys a less successful firm, the purchase price may be lower but DD is likely to then have to invest further in improving the firm's facilities and premises to bring them up to the standard required to host DD's sophisticated technology.
- **Political issues** – Some countries, and governments, look unfavourably on foreign-owned companies and assets. Given that DD's main customers are governments, it cannot afford to pursue an entry strategy which is not politically acceptable to the governments in its target countries.
- **Investment** – Making an acquisition is likely to involve a far greater investment by DD than any of the other strategies we have considered so far. However, the size of the potential market (for a specialist product with only a limited replacement market) may not justify the level of investment required.
- **Barriers to exit** – Moreover, if DD does enter a market via an acquisition but the acquisition does not prove successful, there will be significant barriers to exit which could make leaving the market expensive. (For example, if DD closes down the company it had acquired, it could incur significant redundancy costs.)

Alternative suggestion:

Build its own plant in target country

Rather than entering some kind of partnership with, or acquiring, an existing company in its target countries, DD could set up foreign divisions of its own in those countries.

Advantages

The advantages are:

- Retain control over all aspects of manufacturing and marketing
- Retain all the profits from the venture

Disadvantages

The disadvantages are:

- High level of capital investment, with no guarantee that future sales will justify that investment
- High exit costs (eg, closing factory) if operation proves unsuccessful
- No previous experience or contacts in its target countries (eg, no access to sales or distribution channels)
- Slow: building a new factory will be much slower than partnering with, or acquiring, an existing company

Answer to Interactive question 5

		Debit	Credit
		$	$
31.10.X8	Purchases (129,000 @ 9.5)	13,579	
	Payables		13,579
31.12.X8	Payables (Working)	679	
	Profit or loss – exchange gains		679
31.01.X9	Payables	12,900	
	Profit or loss – exchange losses	399	
	Cash (129,000 @ 9.7)		13,299

WORKING
Exchange difference on payables

	$
Payables as at 31.12.X8 (129,000 @ 10)	12,900
Payables as previously recorded	13,579
Exchange gain	679

CHAPTER 2

Answers to Self-test questions

1 SJB

1.1 Ansoff's product-market matrix looks at the mix of products and markets a firm can use to try to achieve growth, and identifies four options:

(1) **Market penetration** – increasing sales within **current markets** (increasing the firm's market share in those markets) using **existing products**

(2) **Market development** – selling **existing products** to **new markets**

(3) **Product development** – selling **new products** but to **existing markets**

(4) **Diversification** – introducing **new products** and selling them to **new markets**

SJB is currently considering two proposals – the acquisition of HAL, and the disposal of the leisure and financial services divisions – and it could look at these proposals to see how they could help it carry out the future strategic directions indicated in Ansoff's matrix.

Market penetration – SJB and HAL both operate in the engineering market in the UK. Therefore, acquiring HAL could be seen as a market penetration strategy, because it would allow SJB to increase its market share to the point that it becomes the largest engineering business in the UK.

Market development – SJB does not currently have any export business, but HAL does. Therefore, the acquisition could provide SJB with the opportunity to sell its existing products into the export markets in which HAL already operates.

Product development – We do not know how similar the engineering products or services that HAL sells are to SJB's; however, it seems likely that there will be at least some similarity.

Consequently, the acquisition could lead to some synergistic benefits in respect of product development. For example, SJB's and HAL's engineers working together to develop new products. These new products could then be offered to both SJB's and HAL's customers.

Diversification – The decision to divest itself of the leisure and financial services divisions demonstrates SJB's desire to achieve a more concentrated business focus. This may suggest that the board is not currently interested in diversification, particularly unrelated diversification. However, it is possible they could be interested in **related diversification** by, for example, acquiring a supplier who produces some of the parts used in the engineering business.

1.2 Benefits

Market leader – After the acquisition, SJB would have the largest engineering business, by revenue, in the UK. This size should also allow it to benefit from greater economies of scale than it currently enjoys.

Export markets – SJB does not currently have any export business, but the acquisition will give it a substantial export business. This could be particularly important, given the prolonged recession in the UK and the risk that it could adversely affect SJB's engineering business in the future. Having export markets that are at different stages in their business cycles to UK markets, should help provide SJB with alternative sources of growth, even if the UK engineering market enters a downturn.

Application of management skills – SJB's corporate strategy is based on applying its 'exceptional management skills' to help it make significant profits from any companies it has acquired. The fact that HAL is currently in financial difficulties could make it an ideal target for SJB to acquire and turn around, using its exceptional management skills, and its previous experience of managing an engineering business.

Disadvantages

Financial difficulties – Although the fact that HAL is in financial difficulties may allow SJB to acquire it for a relatively cheap price, acquiring a business in financial difficulties could still be a risk, particularly as SJB's 'exceptional management skills' have recently been called into question, and its cash reserves have been exhausted.

Impact on resources – Depending on how HAL performs post-acquisition, it may prove to be a further drain on SJB's resources. Moreover, because SJB's cash reserves have already been exhausted, it will not be able to make any substantial investments into HAL, even if it becomes clear these are required after the acquisition.

Source of HAL's current difficulties – It is not clear why HAL is in financial difficulties, whether for example the problems are due to a short-term slowdown in demand, or a more structural decline in demand for its products. If the financial difficulties are due to longer-term problems, then there may be little SJB can do to restore HAL's financial performance.

Employee integration – HAL seems to be quite a large company in relation to SJB. HAL currently employs 500 people, while SJB employs 900 across its 3 divisions. Acquiring 500 new employees will be a substantial management task for SJB but, if the integration of HAL's and SJB's engineering businesses isn't successful, this will reduce SJB's chances of gaining any synergies from the acquisition.

2 Ambion

Advantages

- The Ambion market (where Swift currently operates) is mature and highly competitive, and the government is hostile to road transport.
- Acquiring EVM would provide Swift with access to a new market (Ecuria) in which demand is growing, competition is immature and the Government is investing in road transportation.
- Acquiring EVM will increase the overall size of the group, allowing increased economies of scale to be exploited in relation to purchasing trucks and other equipment.
- Swift's capabilities in logistics should enable it to increase EVM's profitability post-acquisition.

Disadvantages

The benefits from the acquisition may be reduced in light of any potential culture clashes that may arise between the two companies involved:

- Swift has no experience of operating or acquiring foreign companies.
- Swift has no experience of trading in Ecuria.
- Although EVM is now a private company, the mindset may still be that of the government organisation it once was. Changing these practices, although potentially leading to higher profits, may be complex and could lead to reputation-damaging labour disputes. This may be unavoidable if Swift attempts to force the Ambion-style working practices on them, and may lead to conflicts that could be impossible to resolve.

Financial considerations

- EVM delivers a return on capital employed (ROCE) of 18.2%. This is very similar to the ROCE of Swift Transport and appears to be a strong performance for the sector.
- The gross profit margin at 20% is higher than that of Swift. However, its net profit margin of 7.5% is lower. This may raise concerns over suitability. The low net profit margin may be due to EVM still carrying high costs from its State-owned days. However, it is possible that Swift will be able to improve the profit margin through economies of scale and by implementing competences gained at Albion. This would make the prospect more acceptable.
- Liquidity (as demonstrated by the current ratio of 1.14 and the acid test ratio of 1.05) is much lower than that of Swift. Swift will have to determine why this is the case, but it is important to consider the business's liquidity and cash flow as well as profit.
- Gearing (30.3%) is much lower for EVM than for Swift. This may indicate a more conservative approach to long-term lending.
- The interest cover ratio (5) is only 60% of Swift's. This could indicate lower profitability, but it could also mean that EVM's interest charges are relatively high, due to the problems the Ecurian investors had in raising finance. However, Swift could look at renegotiating EVM's finances post acquisition.

WORKING

Appendix

	A	B
37		
38	ROCE	18.2% [1]
39	Gross profit margin	20% [2]
40	Net profit margin	7.5% [3]
41	Current ratio	1.14 [4]
42	Acid test ratio	1.05 [5]
43	Gearing	30.3% [6]
44	Interest cover	5 [7]

[1] =SUM(B31:B32)/B18+B21

[2] =B31/B29

[3] =SUM(B31:B32)/B29

[4] =B11/B25

[5] =(B11-B8)/B25

[6] =B21/(B18+B21)

[7] =SUM(B31:B32)/B33

3 Two Wheels

3.1 Report

To: Darius Young, Managing Director
From: Molly Dunn, Management Consultant
Date: XX.XX.XXXX
Subject: Evaluation of Two Wheels Company strategies

Introduction

This report is designed to consider the different **strategies** that Two Wheels is following in its various markets and to **evaluate each of these individual strategies** given the information provided for the last two years and the current year's estimated figures.

In overall terms, Two Wheels has seen a **decline in demand** for its products, with demand expected to fall by 17% from the period 20X6/X7 to 20X8/X9. Revenue is expected to fall by 9.6% by 20X8/X9. Direct costs are an increasingly large proportion of sales revenue and are expected to reach 86% of revenue in the current year, a rise of over five percentage points over the period. Together with a dramatic expected increase in indirect costs of 38% over the period, this has resulted in Two Wheels's profit of £1,967,000 in 20X6/X7 being turned into an expected loss of £166,500 by 20X8/X9. This performance is unacceptable.

Two Wheels has **four distinct market sectors** – racing bicycles, mountain bikes, health clubs and basic bicycles – with distinctly different strategies being in each. Therefore, I will consider each market in turn.

Background

Two Wheels is a private, family-owned company which is now a national producer of bicycles. Some of its products are sold under its own brand name whereas others are sold through a national retail chain under its retail brand name. Over the last few years, Two Wheels has seen its **market being eroded** with **increasing competition** from cheaper overseas imports. The overall UK market for bicycles is in decline and this has been made worse by the high value of

sterling, encouraging imports from foreign suppliers. However, during this period Two Wheels has been able to increase its share of domestic output by accepting lower profit margins in order to maintain sales. Two Wheels concentrates its efforts solely on the bicycle market and has a **strong reputation** for reliable products.

Each individual market that Two Wheels operates in will now be considered in turn in the light of this background information.

Racing bicycles

Two Wheels has been making racing bicycles for many years and this area currently accounts for approximately 16% of its volume output and almost 50% of its sales revenue. This is the only sector of Two Wheels's business where the volume of sales is expected to **increase** this year. This sector is by far the **most profitable** of Two Wheels's market areas, although anticipated revenue has fallen by 2% over the period considered and **direct costs** of production have increased by an expected 5.6%. However, this area still remains profitable and although the bicycles are expensive to produce, some being custom-made, the **distribution costs** in this sector are minimised by the policy of taking direct orders from amateur cycling clubs. These racing bicycles are marketed under the Two Wheels brand name and have enhanced its reputation.

Two Wheels appears to have followed a successful strategy of **premium pricing** in this market and has **differentiated** the product by the policy of producing custom-made bicycles. Despite the cost increases, the margins in this sector are still healthy with clear potential for volume and revenue growth. Any potential for increasing UK market share in this area or diversifying into sales of racing bicycles overseas should seriously be considered, as this is clearly the most successful part of the current business.

This area of the business could be described as a **cash cow**, according to the BCG growth-share matrix, as Two Wheels's market share is relatively high and the market is growing slowly.

Mountain bikes

Two Wheels moved into this fashion area in the 1980s, producing relatively cheap models and currently this sector accounts for 30% of Two Wheels' output but only 23% of revenue. The volume of **sales is expected to decline by 19%** over the period considered, and **revenue to decline by 16%.** However, direct costs of production have increased each year and are anticipated to be 89% of revenue for mountain bikes in the current year. Despite increases in costs and decreases in revenue, this sector remains **relatively profitable** in relation to other market sectors of the business.

About 75% of these mountain bike sales are made under the Two Wheels brand name through **specialist bicycle shops**. The remaining sales are made through a **national retail chain** of bicycle and motor vehicle accessories stores under the retailer's own brand name.

Two Wheels's pricing policy of charging relatively low prices for the mountain bikes is a strategy of **penetration pricing**; however, in order for this to be successful, Two Wheels needs to be able to **compete on costs**. The increases in direct costs will tend to invalidate this policy as Two Wheels does not appear to have the production capacity to achieve the **economies of scale** necessary to maintain profit margins, as sales volumes decline and cheaper foreign imports pose a threat.

As Two Wheels has been so successful in its premium pricing policy in the racing bike market, and the majority of the mountain bikes are also marketed under the Two Wheels brand name, the company should consider **moving away from the low price market** for mountain bikes. If the mountain bikes produced are promoted as being of high quality based on the well- respected **brand name** of Two Wheels in the racing bike market, the company may be able to attract customers prepared to pay a higher price due to the quality of the product.

This area of Two Wheels's business certainly appears to have potential but if changes in both the stabilisation of costs and marketing and pricing policy are not made, it would appear that profits from this sector will continue to decline.

Exercise bicycles

The health club market for **exercise bicycles** plays only a small part in Two Wheels's business currently with only 4% of total volume sales. As this is a **niche market**, it is possible to have a premium **pricing policy**; this sector has been consistently profitable over the period, although margins have reduced to an expected 8% for the current year. Part of the reason for the fall in profitability is, as with other areas of the business, the **escalation of costs** which, in the current year, represent 92% of the sales value of the exercise bicycles.

This market sector is different from Two Wheels's other areas, as it is a **diversification** into a different line of business. The exercise bicycles will have some similarities to the other bicycles manufactured but the market characteristics are very different. Health clubs are a completely different type of customer from those for the other sectors. Sales volume is expected to show a slight fall in the current year since Two Wheels do not produce a full range of exercise equipment, which the market seems to prefer in its suppliers. Therefore, Two Wheels might consider **diversifying** into production of **other** fitness **equipment** such as running machines and cross trainers. This market appears to be potentially profitable but currently Two Wheels is too small a player to take advantage of it in full.

Standard bicycles

The main product of the group, the standard bicycle, accounts for about 50% of the output volume and is therefore still the **core of the business**. However, the **margins** in this area are the main cause of Two Wheels's overall fall in profitability. Sales volume has decreased by 20% over the past two years but sales revenue has fallen by even more, at 24%, as a result of reducing price in an attempt to maintain sales levels in the face of **increasing competition** from cheaper overseas imports. In the current year, the margin has fallen to 2.9%, from 10% two years ago. In 20X6/X7, the production cost per bicycle was £90 but this has increased to £92 per bicycle in the current year. In addition to this, the selling price has reduced from £100 two years ago to just under £95 currently.

About 80% of these bicycles are supplied to a national retail chain supplying bicycles and motor accessories and marketed under the chain's own brand name. As Two Wheels is heavily dependent on the retail chain, it may be that the retailer is forcing prices down using its **buying power**.

Two Wheels' strategy in this market appears to have been one of competing on **both cost and price**. Unfortunately, it appears not to have worked. Prices are coming down and costs are rising. This area of the business is now being **subsidised** by the other more profitable but smaller markets.

There is no real brand association with the basic bicycles as the majority is sold under the retailer's brand name. Therefore, it might be difficult for Two Wheels to disassociate itself from the retailer and sell directly, although it may be possible to build on the brand association from the racing bicycle market. According to the BCG growth-share matrix, the basic bicycle market could be categorised as a '**dog**', as the UK market in this area does not appear to be growing and Two Wheels appears to have a relatively low market share.

If Two Wheels is to improve profitability in this market it must decrease costs, probably move away from dependence on the retailer and attempt to **differentiate its product** in some way. Withdrawal from this market could be considered although, as it is such a significant element of the business, this may be a **dangerous strategy** and should only be considered when all other options have been examined.

Indirect costs

A further worrying area of the business is in the **escalating indirect costs**. Over the two years there has been a staggering increase of 38% in total indirect costs. **Distribution costs** are up by 28% although this may be understandable, given the nature of the direct sales of the racing bicycles and exercise bicycles.

Administration costs have also increased by 20% over the last two years which, given the decrease in sales volumes, appears unusual.

Promotion costs have, however, fallen and this must be **rectified** if Two Wheels is to capitalise on its brand name and increase sales volumes.

Loan interest is unavoidable but worryingly high as, in the current year, **interest cover is only 0.70 times**, an unsustainable level in the long run.

Conclusion

Two Wheels currently has a wide range of strategies, a premium pricing policy for racing bicycles and exercise bicycles, and an attempt to be a cost leader at the lower end of the market with its basic and mountain bikes. **Production costs** must be brought under control before any rationalisation of strategies can be considered.

It would appear that Two Wheels's strengths lie in its **strong reputation and brand** association in the racing bicycle market. If this can be extended to the **mountain bike market**, and a premium pricing policy introduced here with **market differentiation based on the quality of the product**, then this could produce significant improvements in the mountain bike market.

A further potentially successful market is that of the **health club equipment** if the production range can be extended. The basic bicycle market could be improved with more control of direct costs but as the UK market is not expanding, and the strategy has been one of cost leader, which has not succeeded, then it may be necessary to consider withdrawal from this market.

It would appear that the future lies with **quality products** as Two Wheels does not appear to have the production capacity to achieve the cost economies necessary for a successful cost leader strategy at the lower end of the market.

3.2 When considering any potential investment, many factors must be taken into account but when contemplating such a major change in strategy as the MD is proposing, there must be a **wide-ranging review** of the key factors.

Operations

Let us first consider the **operational aspects** of the development of a manufacturing or assembly facility in China. The proposal is based on the **large demand** for bicycles perceived in the Far East, the **cheaper labour** which would reduce **production costs** and the reduction in **transportation costs**.

As far as the demand for bicycles is concerned, the view of the market appears to be that of the MD and there is no evidence that any **market research activities** have been carried out. What type of bicycles are in demand in China and can Two Wheels produce bicycles that satisfy this demand? If the bicycles required are not the same as those currently manufactured by Two Wheels, there may be significant costs involved in redesign and changes to the manufacturing processes.

The **labour cost** aspect must be put into perspective. Labour costs only account for 30% of the total production cost, therefore the cheaper labour would only lead to a maximum decrease in production costs of 22.5%. The labour issue should be considered further – how does the **productivity** of bicycle manufacturing employees in China compare to that in the UK? If productivity is significantly lower in China, then this could **wipe out any cost benefit**.

The **transportation costs** of bicycles from the UK to China are obviously significant. However, if the proposed facility is set up in China instead, there is still likely to be significant transportation costs, since China covers a vast area and demand is likely to be spread widely.

This internal transportation cost should not be ignored.

Two Wheels must consider other operational aspects of setting up a manufacturing facility in China. Can the correct **components** be purchased at a competitive price and delivered on time? What type and amount of **marketing expenses** will there be? Two Wheels must also question its **ability to run** such an operation as it has no experience in even trading with other countries, let alone setting up a full scale operation in one, particularly one as distant and unknown as China.

Finance

Two Wheels must also consider financial aspects. The company has very low profit levels currently and a large debt outstanding. How does it propose to **raise the** finance necessary for such a major investment? Would the finance be raised in this country or in China? Are there opportunities for a UK company to raise major finance in China? Would a joint venture with a Chinese company be a viable option?

Further financial problems will concern the **remittance of funds back to the UK** and any **foreign exchange risks** that Two Wheels may face. Many countries restrict the amount of their currency that can be taken out of the country and as Two Wheels is so short of funds it will clearly require any profits to be remitted back to the UK. Two Wheels should also consider the foreign exchange risks that are associated with any form of trade with foreign countries. If the Chinese currency moves against sterling, then Two Wheels could be subjected to large foreign exchange losses.

Risk

Political risk is a further important area that should be considered. How stable is the Chinese Government? What is their attitude to foreign investors – are they encouraged or are there sanctions which will make operations more difficult and expensive? Political risk is a further important area that should be considered. How stable is the Chinese Government? What is their attitude to foreign investors – are they encouraged or are there sanctions which will make operations more difficult and expensive?

Analysis

Many of the key factors involved in this proposal can be addressed through a **PESTEL analysis** (social, legal, economic, political and technological aspects). Analysis of social factors will help to define the market, determine the type of bicycle required and clarify the potential customer and method of marketing and sale. Legal factors will include dealing with suppliers, contracts for setting up a factory and employment issues. Economic factors will help to define the demand structure, inflation rates, interest rates and availability of finance. Political issues will be of great importance in a country such as China which has large State control. From the technological viewpoint, particularly if there is a demand for Two Wheels's more high-tech products, such as the racing bicycle, does the technology exist in China or must it be exported?

3.3 Briefing notes on advantages of concentration on bicycle production or diversification
Advantages of concentrating on bicycle production

- Two Wheels has been in the bicycle manufacturing business for many decades and therefore has the skills and competences necessary to operate in this area. These skills might not necessarily be easily transferred to other markets such as production of other fitness equipment.
- The fact that Two Wheels specialises in the production of bicycles, albeit of different types, would argue that the company obtains some economies of scale from just this type of production. As direct costs are increasing, there is some doubt about these economies of scale but diversification into another field may reduce margins even more.
- It could be argued that Two Wheels should stick to its core activities and not be side-tracked into other areas in which it has limited experience. This will also be of benefit in developing value chain relationships.
- By remaining within the bicycle industry, the Two Wheels brand name can be cultivated. Its value in other sectors must be doubted.

Advantages of diversification

- If the bicycle market is in decline or faced with significant competition from cheaper foreign imports, then there may be gains to be made in other markets.
- Other markets, such as the health and fitness club market, may offer higher gains than the bicycle market, although the risks may also be greater because of factors such as changes in technology.
- If Two Wheels were to diversify, this would reduce the risk of becoming involved in an individual market area that may decline and would give the company greater flexibility to deal with changes in fashion and technology.
- It is possible that Two Wheels could use its current distribution networks in order to market a different range of products.
- New products may have greater potential to provide technological or commercial advantages for the company.

Conclusion

The theory behind diversification for large companies is that there is no need for a company to do this simply to reduce the risk of just being in one industry, as the shareholders are quite capable of doing this on their own behalf by owning a portfolio of shares. However, for a private family-owned company that is experiencing problems with profitability, a move into a new area is enticing. For Two Wheels, given its core expertise, diversification should only be considered if it is believed that there are no future gains to be made from its current markets and that moves into non-core areas are likely to be successful.

4 Frooli plc and Plenum Ltd

Profit margin

Frooli and Plenum both operate in the same industry (construction) so part of the logic behind the deal is that it should help to create synergies and economies of scale. As such, it should help to increase the profitability of the Frooli group. Similarly, the fact that Plenum's profit margin has been higher than Frooli's in recent years could also be expected to increase the profitability of the group following the acquisition.

However, the acquisition took place on 1 September 20X8, so it is unrealistic to see any improvement in the group results by 31 December 20X8 – only four months after acquisition. Moreover, there could be 'one-off' costs relating to the acquisition which could reduce profitability during 20X8.

Given that the acquisition took place part way through the year, it would be more useful for the group to show revenue and profit margins separately for Plenum's core (pre-acquisition) business and Frooli for the year to 31 December 20X8.

ROCE and Asset turnover

Given that the deal should help to create synergies, economies of scale, and better operating margins, it might initially appear reasonable for Frooli to expect ROCE and Asset turnover to increase following the acquisition.

However, the timing of the deal, and the basis on which consolidated accounts are prepared, again mean it is not appropriate to compare the figures for 20X8 with those for 20X7.

Because Plenum was acquired on 1 September, only four months of its revenue and operating profit are included in Frooli's consolidated statement of profit or loss (ie, the proportion after the acquisition was completed). However, all of Plenum's assets are included in the consolidated statement of financial position. Consequently, there is a mismatch between revenue and profit vs capital employment when calculating ROCE and asset turnover.

Although this mismatch is reduced to some extent by Frooli using average values to calculate 'capital employed' and 'total assets', the indicators are still distorted by the fact that they only include four months of Plenum's income but (in effect) six months of its assets, debt and long-term liabilities.

In the longer term, Frooli could still use the indicators to assess the group's performance. However, it is not appropriate to do so for 20X8, because any comparisons with the prior year (or subsequent years) will not be 'like for like'.

Chapter 3
Strategic implementation

Introduction

Learning outcomes Syllabus links

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Chapter study guidance

Learning topics

1 Acquisitions and strategic alliances

2 Aligning organisational structure and strategy

3 Managing change

4 Cost reduction, supply chain management and outsourcing

5 Operations strategy and management

6 Evaluating functional strategies

7 Business Plans

Summary

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Answers to Self-test questions

Introduction

Learning outcomes

- Demonstrate and explain the impact of acquisitions and strategic alliances in implementing corporate strategy and evaluate the nature and role of assurance procedures in selecting and monitoring such strategies
- Evaluate and explain the relationship between business strategy and organisational structure
- Explain and evaluate the nature and methods of change management, and advise on the implementation of change in complex scenarios
- Demonstrate and explain the techniques that may be used in implementing a strategy to reduce costs, for example supply chain management, business process re-engineering and outsourcing
- Evaluate, in a given scenario, the functional strategies necessary to achieve a business's overall strategy
- Develop business plans and proposals and advise on technical issues relating to business and organisational plans, assess the impact on historic and projected corporate reporting information
- Demonstrate an understanding of, and provide advice on, data security issues, including cybersecurity issues, arising from communications, shared systems and data sharing throughout the supply chain and with strategy partners
- Identify and explain barriers to implementation of digital strategy and make recommendations as to how they may be overcome

Syllabus links

In Strategic choice, we looked at the issues entities should consider when choosing the strategies they wish to pursue. In this chapter, we now look at some of the issues they need to consider when implementing those strategies. Ultimately, a strategy will only be successful if it can be (and is) implemented successfully – through the entity's operations.

In Strategic analysis, we discussed position-based and resource-based approaches to strategy, and strategic implementation and strategic operations management highlights the importance of establishing a fit between market demands and operational capabilities. In the context of dynamic and rapidly changing environments, one potential source of competitive advantage for an entity will be its ability to respond quickly and effectively to changing customer demands and market trends.

Equally, however, it is important for an organisation to understand how well key aspects of its business are performing against target. We will look at performance measurement –of both financial and non-financial performance – in Strategic performance management of this Workbook.

Similarly, recognising the importance of the functional strategies necessary to achieve an entity's overall strategy highlights the importance, variously, of marketing, information systems and human resources strategies, which we consider in more detail in Chapters Strategic marketing and brand management, Information strategy and Human resource management of this Workbook respectively.

Knowledge brought forward

The motives for acquiring companies were covered in Business Strategy &Technology, as were the different types of organisational structure that organisations can adopt. Networks and supply chain management were also covered in Business Strategy and Technology, although we will consider them in more detail here.

Organisational change and strategies for managing change are discussed in some detail in Business Strategy & Technology. However, as we have noted in previous chapters, at Advanced Level you will need to select relevant ideas from appropriate models and theories, and apply them to complex scenarios in order to advise an organisation on how it can implement strategies to help achieve its overall strategy and objectives.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your studyof this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Acquisitions and strategic alliances** A common method of business growth is combining with one or more businesses. This can be done formally, via mergers or acquisitions, or more informally through strategic alliances.	**Approach** Section 1 addresses the issues involved with acquisitions and strategic alliances. It is important to appreciate the advantages and disadvantages of acquisitions or strategic alliances as methods of growth, compared to organic growth. **Stop and think** Consider any recent mergers or acquisitions you have heard of. What challenges did the companies face in attempting to integrate the businesses?	In the exam you may be asked to assess the impact of an acquisition or strategic alliance in helping an entity implement its corporate strategy. You may also be required to demonstrate the importance of assurance procedures in an acquisition or strategic alliance.	**IQ1: Due diligence:** In this question you are asked to advise on the types of due diligence required before a takeover can proceed. It is important to develop the breadth of your answer here. **IQ2: Growth strategies** This question asks for a discussion of the advantages and disadvantages of organic growth and acquisition. Ensure you apply your answer to the scenario.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Aligning organisational structure and strategy** Traditional structural theories, based on formal, top-down command and control are being challenged as the business environment becomes increasingly competitive and fast paced.	**Approach** This section looks at the relationship between business strategy and organisational structure. A key point for any organisation will be the extent to which structure helps it to achieve its strategy, or which strategy is suitable for its structure. **Stop and think** Consider an organisation you are familiar with. Does structure follow strategy or strategy follow structure?	In the exam scenario, you may be presented with organisational change requiring you to evaluate the relationship between business strategy and organisational structure to support the change.	**IQ3: Car manufacturer** In the scenario a car manufacturer is considering amending its organisational structure to better respond to the business environment, you are asked to recommend a suitable structure to support this change.
3	**Managing change** Introducing new strategic choices represents a form of change. Such change is likely to generate resistance which must be overcome if the intended strategy is to be successful.	**Approach** For many entities, strategy implementation involves change management. You should already be familiar with some of the key change management models from your Business Strategy and Technology studies. In the SBM & L exam you will be expected to apply them to more complex scenarios. Note the potential issues which may need to be addressed in order to successfully implement a digital strategy.	In the exam you may be required to explain possible methods of managing change and advise on appropriate ways to overcome barriers to change in a given scenario. Change management issues may be implied in a scenario rather than being specifically mentioned in the requirement.	**IQ4: Managing change** By applying your technical knowledge to the scenario, you are required to analyse the forces for and against change as well as making recommendations on how to manage the change process.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
		Stop and think What are some of the many reasons people resist change?		
4	**Cost reduction, supply chain management and outsourcing** Although not all strategies are driven by cost reduction, it has become an increasingly important issue for many entities. However, entities have to balance their desire to reduce costs with the need to sustain product and service quality. The relationship between cost reduction and sustaining the value- adding activities which contribute to long term corporate	**Approach** Section 4 discusses cost reduction strategies, whilst protecting the value they provide to their customers. Supply chain management, business process re- engineering, outsourcing and data sourcing are all important topic areas. Do not overlook the sections on assurance. If an entity is concerned about control weaknesses at a potential supplier or an outsource partner, this could	In the exam, you may need to explain techniques which could be used to help an entity reduce costs, and demonstrate how they could be applied in the context of the case study scenario. You may also be required to assess potential cybersecurity issues arising in the supply chain and from sharing data between organisations.	**IQ5: Examples of BPR** This question asks you to describe and apply Business Process Re- engineering to a manufacturing company. As with all SBM&L questions you need relevant technical knowledge to apply to the scenario.
	value is crucial to longer-term strategic success.	persuade the entity not to use that supplier/ partner, even if it might appear suitable in other respects. How should a business decide which activities to outsource and which to retain in- house?		

Topic	Practical significance	Study approach	Exam approach	Interactive questions
5	**Operations strategy and management** Operations strategy examines how to manage an organisation's resources, in order to effectively produce products and services. Operations management, by contrast, is concerned with the design, implementation and control of an organisation's processes.	**Approach** Operations strategy and management is another important section, and these topics are covered in much greater detail here than they were in Business Strategy and Technology. An entity's operations, and the way they are managed, are crucial in achieving competitive advantage. **Stop and think** What are the disadvantages of JIT purchasing and production?	Exam questions may ask you to evaluate the operations strategy necessary in a given scenario to achieve a business's overall strategy. There is a lot of theoretical content within the topic but above all it is important to adopt a pragmatic approach and provide practical advice with regard to the appropriate strategies.	
6	**Evaluating functional strategies** Functional strategies need to be implemented in order to support the overarching corporate strategy. For example, a cost leadership strategy would require a programme of cost reduction and control across the supply chain functions.	**Approach** This section briefly reviews the impact of strategy on various functional strategies, including marketing, finance, HR and R&D. **Stop and think** What role does the finance function play in a strategy to introduce a new product range?	Exam questions may ask you to evaluate the functional strategies which are necessary in a given scenario to achieve a business's overall strategy. Ensure that your answers avoid a theoretical discussion and instead provide practical advice with regard to functional strategies.	**IQ6: Levels of strategy** This short knowledge-based question asks you to identify the corporate, business and functional strategies present in the short scenario.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
7	**Business plans** Any business looking to raise finance for investment will need to produce a convincing and thorough business plan. There is no standard format for a business plan but as a minimum it should include a justification of the need for finance as well as detailed forecast cashflows.	**Approach** An entity's ability to implement a strategy successfully depends on how realistic and feasible the strategy is to start with. Section 7 highlights this point in relation to critiquing business plans; particularly with regard to assurance over prospective financial information assumptions. **Stop and think** A business plan is used by a potential lender but how might it be useful for the business itself?	In the exam you may be required to present your response in the form of a business plan or proposal, or to advise on the issues an entity might face when developing business or organisational plans. You may also be required to critique a business plan and assess how realistic the assumptions are.	

Once you have worked through this guidance you are ready to attempt the further question practice included at the end of this chapter.

1 Acquisitions and strategic alliances

Section overview

- In Strategic choice, we looked at the different options available to entities to help them implement growth strategies. One way a business can grow is by combining with other businesses, through merger or acquisition. A merger is the integration of two or more businesses. An acquisition is where one business purchases another.
- Mergers and acquisitions are fraught with risks relating to integration and over paying for a target company. An alternative approach is to therefore agree to work with partners, either within or across industries, in order to reduce the competitive forces faced.

1.1 Acquisitions

Many companies consider growth through acquisitions or mergers. However, it is important for a company to understand its reasons for acquisition, and equally important that those reasons are valid in terms of its strategic plan.

We looked at the purpose of acquisitions in Strategic choice. In Strategic choice we also noted that acquisitions can provide a means of entering a market – or building up a market share – more quickly and/or at a lower cost than would be incurred if the company tried to develop its own resources.

Corporate planners must, however, consider the level of **risk** involved. Acquiring companies in overseas markets is riskier for a number of reasons such as differences in culture and/or language, and differences in the way the foreign company is used to being managed.

The acquirer should attempt an evaluation of the following:

- the prospects of technological change in the industry
- the size and strength of competitors
- the reaction of competitors to an acquisition
- the likelihood of government intervention and legislation
- the state of the industry and its long-term prospects
- the amount of synergy obtainable from the merger or acquisition
- the cultural fit between predator and target

Context example: Bayer and Monsanto

In 2016, the German pharmaceutical and chemicals giant Bayer announced a deal worth $66 billion (or $128 per share) to buy the US seed and agricultural chemical company Monsanto. The combined company will control over a quarter of the global supply of seeds and pesticides (so the deal needed to get regulatory clearance before it could be closed).

Both companies have struggled to increase their market share separately. However, despite the difficulties in finding growth in the agrichemical industry, Bayer's Chief Executive believes there will be an upturn in demand for the company's products in future as rising global populations put pressure on farmers to increase output.

Some of Bayer's own shareholders have been highly critical of a takeover plan which they say risks overpaying and neglecting the company's pharmaceutical business.

However, Bayer's move to combine its crop chemical business (the world's second largest after Syngenta) with Monsanto's industry-leading seeds business, is one of a series of major consolidations in the agrochemicals sector. Therefore while some investors were critical of the takeover plan, others felt it was necessary. As one pointed out: 'Bayer's competitors are merging, so not doing this deal would mean having a competitive disadvantage.'(In 2017, the Chinese chemicals group ChemChina acquired Syngenta for $43 billion.)

Bayer is aiming to create a one-stop shop for seeds, crop chemicals and computer-aided services to farmers. And the company said it expected the deal to boost its core earnings per share in the first full year following completion, and by a double-digit percentage in the third year.

Based on: Reuters (2016), *Bayer clinches Monsanto with improved $66 billion bid*. [Online] Available from: https://www.cnbc.com/2016/09/14/bayer-and-monsanto-agree-to-merge.html [Accessed 6 August 2018]

1.2 Better off tests

Michael Porter suggests that one of the key issues behind acquisitions should be in realising synergies between the existing company and the new acquisition.

To this end, he suggests that potential acquisitions should be assessed against three tests:

(a) Better off test – Will the company being acquired be better off after the acquisition? Will it gain competitive advantage from being in the group?

(b) Attractiveness test – Is the target industry structurally attractive? (Porter originally developed his tests in relation to diversification, and so was looking at companies making acquisitions in unrelated industries. However, the point about 'attractiveness' could be applied more generally to look at target companies, or countries.)

(c) Cost of entry – The cost of the acquisition (or the cost of entering a new market) must not capitalise all future profits from that acquisition (or market). In other words, will the future cash flows from the acquisition be greater than the amounts paid to acquire it?

Porter identified another key point in relation to successful acquisitions, which could be called the **parenting test**. Has the company making the acquisition got the necessary skills as a corporate parent to get the best value out of the company being acquired? For example, has it got any **experience of previous acquisitions**?

It is also important to remember that many acquisitions turn out not to be successful. Ashridge Management College suggests that as many as 70% of mergers and acquisitions fail to meet their objectives, and some even bankrupt the acquiring company. In many cases, managers have too little experience with the acquisition process, and also they make acquisitions for the wrong reasons.

Equally, acquisitions can fail because there isn't a good strategic fit between the company making the acquisition and the company being acquired.

1.3 The mechanics of acquiring companies

As an accountant in business, you may be required to assess the value of an acquisition. We look in more detail at the different valuation methods in Business and securities valuation in this Workbook where we will also address the corporate reporting issues arising from acquisitions and mergers.

However, at this point in the Workbook, we will simply note that there are a number of methods that could be used to value a company being acquired.

(a) Price/earnings (P/E) ratio. The market's expectations of future earnings. If it is high, it indicates expectations of high growth in earnings per share and/or low risk.
(b) Accounting rate of return, whereby the company will be valued by estimated future profits over return on capital.
(c) Value of net assets (including brands).
(d) Dividend yield.
(e) Discounted cash flows, if cash flows are generated by the acquisition. A suitable discount rate (eg, the acquirer's cost of capital) should be applied.
(f) Market prices. Shareholders may prefer to hang on for a better bid.

1.3.1 Takeovers or mergers financed by a share exchange arrangement

Many acquisitions are paid for by **issuing new shares** in the acquiring company, which are then used to buy the shares of the company to be taken over in a 'share exchange' arrangement. An enlarged company might then have the financial 'muscle' and borrowing power to invest further so as to gain access to markets closed to either company previously because they could not individually afford the investment.

1.3.2 Acquisitions and earnings per share

Growth in EPS will only occur after an acquisition in certain circumstances.

(a) When the company that is acquired is bought on a lower P/E ratio; or

(b) When the company that is acquired is bought on a higher P/E ratio, but there is profit growth to offset this.

1.3.3 Debt finance

Another feature of takeover activities in the US especially, but also in the UK, has been the **debt-** financed **takeover**. This is a takeover bid where most or all of the purchase finance is provided by a syndicate of banks for the acquisition. The acquiring company will become very highly geared and will normally sell off parts of the target company.

A **leveraged buyout** is a form of debt-financed takeover where the target company is bought up by a team of managers in the company.

1.3.4 Assurance procedures and company valuations

Accounting policies can have a significant impact on the valuation of acquisitions. They could be used to inflate the share price or to depress it. Optimistic accounting policies, valuing assets generously, bringing forward revenue recognition, and delaying provisions may inflate the company position and share price.

On the other hand, accelerating expenses or making very conservative estimates of future earnings may depress share prices.

There may be agency issues with both approaches. Directors who wish to retain their own jobs may attempt to boost earnings, and hence share prices, to deter takeovers. On the other hand, directors who feel they can benefit if a takeover occurs may be tempted to depress a company's market valuation, even though shareholders may lose out as a result.

These scenarios, in which the interests of company directors (agents) may be different from those of the shareholders (principals), are indicative of the **principal-agent problem**.

The way companies are structured and operate means that managers and directors (agents) are placed in control of resources that are not their own, but have a contractual obligation to use those resources in the interests of their owners (the shareholders). The principal-agent problem arises when agents start using a company and its resources as a means to serve their own interests, rather than to maximise the total financial returns to the company's owners. Where actions taken by an agent deviate from the principal's best interest, this deviation is called an agency cost.

With any acquisition or merger, shareholder value must be protected as far as possible, and thus it is essential to perform some level of due diligence. For example, it will be very important that management forecasts are evaluated critically to ensure they do not appear to be over- or understated.

Assurance procedures in relation to acquisitions and mergers are considered in Business and securities valuation in this Workbook, although we have also already discussed due diligence, and the areas where due diligence may be undertaken in Strategic choice (ie, financial; commercial; operational; technical; IT and cybersecurity; legal and human resources due diligence).

As noted in Strategic choice, the precise aims of due diligence will depend on the engagement being carried out, but due diligence will typically attempt to achieve the following:

- confirm the accuracy of the information and assumptions on which a bid is based
- provide the bidder with an independent assessment and review of the target business
- identify and quantify areas of commercial and financial risk
- give assurance to providers of finance
- place the bidder in a better position for determining the value of the target company

Interactive question 1: Due diligence

Alpha Oil plc has agreed provisional terms with a small industry rival, Beta Extraction plc, for a full takeover. Beta has now agreed to open up its books to Alpha for due diligence purposes.

Requirement

Advise Alpha as to the types of due diligence its shareholders would expect to see performed before a takeover could proceed.

See **Answer** at the end of this chapter.

1.3.5 Potential liabilities and due diligence

If those involved in due diligence do not act properly there is significant potential for one of the parties to suffer loss as a consequence and **seek legal redress**.

As a general rule, the principle of *caveat emptor* (let the buyer beware) applies. The seller has no general duty to disclose information to the purchaser (there may, however, be a specific contractual duty depending on the terms of the agreement).

Thus auditors and other experts **can be held liable for damages** caused by their failure to uncover potential or actual liabilities or other problems during the due diligence process.

Similarly, the requirements of **corporate governance** could render directors personally liable if adequate due diligence has not been carried out.

1.4 Issues to consider in acquisitions

We highlighted the advantages and disadvantages of acquisitions in Strategic choice, with some of the key points being:

Advantages of acquisitions	Disadvantages of acquisitions
Speed of growth	Cost (and potential over-payment)
Avoids barriers to entry	Potential negative customer reaction
Acquisition of technical expertise and cus-tomercontacts	Incompatibility and lack of cultural fit

It is also worth noting acquisitions can be made without cash, if share exchange transactions are acceptable to the company being acquired. (This could be a cash flow advantage.)

It is worth considering the **stakeholders** in the acquisition process:

(a) Some acquisitions are driven by the personal goals of the acquiring company's managers. For example, some managers may want to make the acquisition and increase the size of the firm as a means of increasing their own status and power. Alternatively, other managers may view an acquisition as a means of preventing their own company being taken over, thereby making their job safer.

(b) Corporate financiers and banks also have a stake in the acquisitions process, as they can charge fees for advice.

Takeovers often benefit the shareholders of the acquired company more than the acquirer. According to the Economist Intelligence Unit, there is a consensus that fewer than half of all acquisitions are successful. One of the reasons for failure is that firms rarely **take into account non-** financial **factors**.

(a) All acquirers conduct financial audits of target companies but many do not conduct anything approaching a management audit.

(b) Some major problems of implementation relate to human resources and personnel issues such as morale, performance assessment and culture. If key managers or personnel leave, the business will suffer.

Another common problem following a merger or acquisition is that the **post-acquisition phase is not properly managed**, so the two component companies are never properly integrated. In this way, the potential benefits of the deal cannot be fully realised. As the parent organisation looks to benefit from synergies after an acquisition, they often streamline the workforce which could damage **morale among the workforce** (as well as leading to redundancy costs in the short term).

It may also be the case that an acquisition cannot be pursued due to a likely refusal by government on competition grounds.

Professional skills focus: Applying judgement

Do not assume that shareholder acceptance of a merger or acquisition is a guarantee of success since there are many stakeholders involved in the process. Assess the different stakeholder perspectives when evaluating expansion options and ensure that your assessment also takes into account non-financial factors such as organisational culture and employee acceptance.

Context example: Competition Authorities

The activity of the Competition and Markets Authority (previously the Competition Commission) in the UK is a good example of the way governments may approach the problem of monopoly, or other anti-competitive market structures.

The Competition and Markets Authority (CMA) is an independent, non-ministerial government department, whose primary duty is to promote competition, both within and outside the UK, for the benefit of consumers.

Its responsibilities include:

- investigating mergers which could restrict competition
- conducting market studies and investigations in markets where there may be competition and consumer problems
- investigating where there may be breaches of UK or EU prohibitions against anti-competitive agreements and abuses of dominant positions
- enforcing consumer protection legislation to tackle practices and market conditions that make it difficult for consumers to exercise choice

Although the CMA is specifically a UK authority, other countries have similar authorities, which aim to curtail anti-competitive behaviour.

For example, in Australia, the mandate of the Australian Competition and Consumer Commission is to protect consumer rights, business rights and obligations, perform industry regulation and price monitoring, and prevent illegal anti-competitive behaviour.

In the US, the United States Department of Justice Antitrust Division is responsible for enforcing US antitrust laws. It shares jurisdiction over civil antitrust cases with the Federal Trade Commission (FTC) and often works jointly with the FTC to provide regulatory guidance to businesses.

In addition to regulatory bodies in individual countries, there are supranational bodies that regulate restrictive practices. The European Commission and the national competition authorities in all EU member states cooperate with each other through the European Competition Network (ECN).

This creates a mechanism to counter companies that engage in cross-border practices designed to restrict competition. As European competition rules are applied by all members of the ECN, the ECN provides a means to ensure they are effectively and consistently applied. Through the ECN, the competition authorities from different EU member states are able to inform each other of proposed decisions and to pool their knowledge.

Interactive question 2: Growth strategies

JKL is a small European company. It currently employs 40 people and generates annual revenue of about 11 million euros. One aspect of its recently formulated strategy is an aspiration to expand into a neighbouring country, France, by means of organic growth.

The reason that JKL's strategy for expansion is based on organic growth is due to JKL's past experience. Two years ago, the directors of JKL negotiated the purchase of a business, LMN, located in a different region of its home country. At the time of this acquisition, LMN was regarded by JKL as having complementary capabilities and competences. However, within a short time after the acquisition, JKL judged it to have been a failure and LMN was sold back to its original owner at a loss for JKL.

JKL employed consultants to analyse the reasons for the failure of the acquisition. The consultants concluded that the failure had happened because:

(1) JKL and LMN had very different corporate cultures and this had posed many difficulties, which were not resolved;
(2) JKL and LMN had very different accounting and control systems and these had not been satisfactorily combined; and
(3) JKL had used an autocratic management style to manage the acquisition and this had been resented by the employees of both companies.

JKL has learnt that a French competitor company, XYZ, may shortly be up for sale at a price which would be very attractive to JKL. XYZ has a very good reputation in its domestic market for all aspects of its operations and its acquisition would offer JKL the opportunity to widen its skill set.

None of JKL's staff speaks fluent French or is able to correspond in French.

Discuss, in the context of JKL, the respective advantages and disadvantages of pursuing a strategy of expansion by:

Requirements

1.1 Organic growth

1.2 Acquisition

See **Answer** at the end of this chapter.

1.5 Strategic alliances

As we identified in Strategic choice, firms could also use strategic alliances as a method of growth, rather than making an acquisition. Firms could enter long-term **strategic alliances** with others for a variety of reasons.

(a) They share development costs of a particular technology.

(b) The regulatory environment prohibits takeovers (eg, most major airlines are in strategic alliances because in most countries – including the US – there are limits to the level of control an 'outsider' can have over an airline).

(c) Complementary markets or technology.

(d) Learning. Alliances can also be a 'learning' exercise in which each partner tries to learn as much as possible from the other.

(e) Technology. New technology offers many uncertainties and many opportunities. Such alliances provide funds for expensive research projects, spreading risk.

Strategic alliances only go so far, as there may be disputes over control of strategic assets.

In addition, when considering an alliance it is important that the alliance's objectives, methods and resource commitments are clearly understood by all the alliance partners, and that the prospective partners are prepared to cooperate fully with the alliance. If they are not, the alliance could be doomed to failure from the outset.

Limitations of alliances:

(a) Core competence. Each organisation should be able to focus on its core competence. Alliances do not enable it to create new competences.

(b) Lack of integration. Because alliance partners remain separate entities, many alliances fail to achieve the integration or commitment needed to gain any significant competitive advantage or economies of scale.

(c) Strategic priorities. If a key aspect of strategic delivery is handed over to a partner, the firm loses flexibility. A core competence may not be enough to provide a comprehensive customer benefit.

If a firm enters an alliance as a means of learning from, or gaining knowledge about, an alliance partner this could ultimately cause a problem for the sustainability of the alliance. If the partners do not want others to learn from them, or if they feel there is an unfair exchange between the alliance partners, this could signal the end of the alliance. In a well-structured alliance, the risks, rewards and resource commitments are fairly apportioned among the alliance partners.

Nevertheless, it is worth noting that a number of **alliances end in takeover**, possibly after one of the organisations has gained knowledge from their partners. Firms entering an alliance need to be aware of this risk.

1.5.1 Choosing alliance partners

Hooley et al suggest the following factors should be considered in choosing alliance partners.

Drivers	What benefits are offered by collaboration?
Partners	Which partners should be chosen?
Facilitators	Does the external environment favour a partnership?
Components	Activities and processes in the network.
Effectiveness	Does the previous history of alliances generate good results? Is the alliance just a temporary blip? For example, in the airline industry, there are many strategic alliances, but these arise in part because there are legal barriers to cross-border ownership.
Market-orientation	Alliance partners are harder to control and may not have the same commitment to the end user.

Context example: Starbucks and Tata

In 2012, Starbucks Coffee Company announced a 50-50 joint venture with Tata Global Beverages Limited (the 2nd largest branded tea company in the world) to bring the Starbucks brand to India. The venture, named Tata Starbucks Limited, aimed to open Starbucks cafes in cities across the country, branded as Starbucks Coffee 'A Tata Alliance'.

By April 2018 the venture operated 146 cafes in 10 cities across India.

In addition, to the joint venture, Tata Coffee Limited also agreed a sourcing arrangement with Starbucks Coffee Company, under which Tata Coffee Limited will roast coffee to supply to Tata Starbucks Limited, and to export to Starbucks Coffee Company.

The joint venture, Tata Starbucks Limited, brought together two companies with a 'rich heritage and passion' for coffee, tea and other beverages. In doing so, the JV increased the range of beverage offerings for Indian consumers; as, for example, the companies worked together to offer a premium tea product, branded Tata Tazo.

When the JV was announced, Tata Global Beverages' vice chairman said, the joint venture 'opens up exciting business opportunities and new formats for [Tata]. Starbucks brings unique retail experience as well as a shared sense of business values. We are excited about the opportunities the alliance presents to innovate in the retail space and bring new beverage experiences to more consumers in India.'

Similarly, a spokesman for Starbucks said, 'We're very pleased to have found the best partner for Starbucks in Tata – a company that shares so many of the same values for conducting business in a way that earns the trust and respect of our customers and employees… We look forward to bringing the Starbucks experience to customers in India by offering high quality coffee, hand-crafted beverages, locally relevant food and legendary service.'

The alliance with Tata should help ease one of the main burdens for retailers in India: the high cost of retail estate, because it will open outlets at properties owned by Tata group companies, for example the Taj chain of luxury hotels.

However, Tata also hopes the alliance would help Tata Global Beverages to expand its international footprint, with coffee beans from Tata Coffee, and other Tata Beverage brands being exported to regional Starbucks outlets.

Based on: Starbucks (2012) Press release: Tata Global Beverages and Starbucks form joint venture to open Starbucks cafés across India. [Online]. Available from: https://news.starbucks.com/news/tata- global-beverages-and-starbucks-form-joint-venture-to-open-starbucks-ca [Accessed 6 August 2018]

Context example: Tesco and Carrefour

In July 2018, Tesco and Carrefour (the French retail giant) announced a strategic alliance which will enable them to use their joint buyer power to 'strengthen their relationships' with their suppliers, and

in turn offer greater choice – and lower prices – to customers, thereby increasing their competitiveness.

Tesco (UK's largest retailer) recorded sales of £57.5 billion in 2017 while Carrefour (Europe's largest) reported sales of €88.2 billion (£78 billion). The fact that two companies of this size are willing to form an alliance highlights the increasingly competitive nature of the retail environment.

The traditional 'Big Four' UK supermarket chains – Tesco, Sainsbury's, Asda and Morrisons – are facing increasing competition from the rapidly-expanding budget chains, Lidl and Aldi, and there is now also an emerging threat of Amazon moving into the sector. (In 2017, Amazon bought the upmarket grocer, Whole Foods, and it has started offering food sales in the UK through its Amazon Fresh service.)

As the alliance was announced, Tesco's CEO, Dave Lewis, said, 'By working together and making the most of our collective product experience and sourcing capability, we will be able to serve our customers even better, further improving choice, quality and value.'

Carrefour's CEO said: 'This alliance… combines the purchasing expertise of two world leaders, complementary in their geographies, with common strategies. This agreement is a great opportunity to develop our two brands at the service of our customers.'

Based on: BBC (2018) Tesco and Carrefour say 'strategic alliance' will cut prices. [Online] Available from: https://www.bbc.co.uk/news/business-44679884 [Accessed 7 August 2018]

2 Aligning organisational structure and strategy

Section overview

Historically, business strategies tended to be based on what could be achieved within the confines of an existing organisational structure. However, current thinking is that a successful strategy will be largely informed by external factors, such as PEST and five forces analysis, and as such, the organisational structure should be moulded around the corporate strategy.

Views about organisational structure have changed over time. Traditionally, management theorists have advocated formal structures, alongside a top-down, command and control approach to strategy, in which senior managers made the decisions and the rest of the organisation simply implemented them.

However, this view of structure and strategy is now being challenged. In contemporary organisations, where key knowledge is held by employees at all levels within the organisation, and where change is constant, relying on formal top-down structures may no longer be sufficient.

Johnson, Scholes and Whittington point out that a fast-moving, knowledge-intensive world raises two key issues for organisations:

(a) A static concept of formal structure is becoming less and less appropriate, because organisations have to frequently reorganise themselves in response to changing conditions.

(b) Harnessing the valuable knowledge possessed by workers throughout the organisation requires a more flexible process than top-down formal hierarchies generated. Informal relationships and processes are vital to generating and sharing the knowledge that can be fundamental to competitive advantage.

As a result, formal structures and processes need to be aligned with informal processes and relationships to create **coherent configurations**.

Contingency approach

In this context, it is important to note the contingency approach to organisational structure, which takes the view that there is no one best, universal structure. There are a large number of variables, or situational factors, which influence organisational design and performance. The contingency approach emphasises the need for flexibility.

The most appropriate structure for an organisation depends on its situation. It is an 'if then' approach; in other words, if certain situational factors are present, then certain aspects of structure are most appropriate.

Typical situational factors include:

- type and size of organisation and purpose
- culture
- preferences of top management/power/control
- history
- abilities, skills, needs, motivation of employees
- technology (eg, production systems)
- environment

Burns and Stalker identified two (extreme) types of structure (and management style):

- **Mechanistic** – rigid structure, bureaucratic management structure/style, applicable in stable environments
- **Organic** – more fluid structures, appropriate to changing circumstances (ie, dynamic environments)

These distinctions link with the distinction between the prescriptive (rational model) and emergent approaches to strategy and structure. Both mechanistic and organic elements may exist side by side in any one organisation. For example, in a hotel, 'production' departments like the kitchens may be suited to a mechanistic structure but 'service' departments, like marketing, may work better with organic structures.

Burns and Stalker's mechanistic style is also illustrated in organisations with formalised structures, with strict rules and regulations. The rules control employee behaviour, such that employees have little or no autonomy to make decisions on a caseby-case basis.

Formalisation makes employee behaviour more predictable since, whenever a problem or issue arises, employees know they have to refer to a handbook or a procedure guideline to find out how to deal with the issue. In this way, they respond to issues in a similar way across the organisation, which leads to consistency of behaviour.

For example, McDonald's has a strongly bureaucratic structure, in which employee jobs are highly formalised, with clear lines of communication and very specific job descriptions. This kind of structure is an advantage for McDonald's because it seeks to produce a uniform product around the world at low cost.

However, while formalisation reduces ambiguity and provides clear guidance to employees, it does have some disadvantages. A high degree of formalisation does not encourage innovation, because employees are not given any scope to innovate. Formalised structures are often also associated with reduced motivation and job satisfaction.

In relation to decision making, formalised structures often lead to a slower pace of decision making. Employees have to refer any potential decisions to senior managers to make a decision, rather than having any authority to take decisions at a lower level.

By contrast, Google adopts a structure and culture in which employees are encouraged to innovate and take decisions, as illustrated in the following case example.

Context example: Google

Google encourages employee risk taking and innovation.

When a Vice President in charge of the company's advertising systems made a mistake, costing the company millions of dollars, she was actually commended by Larry Page (one of the co-founders of Google) who congratulated her for trying, noting that he would rather run a company in which people are moving quickly and trying to do too much, rather than being too cautious and doing too little.

This kind of attitude towards acting fast and accepting the cost of mistakes as a natural consequence of operating at the cutting edge may help explain why the company has performed ahead of competitors such as Yahoo!

Google's culture is also reflected in its approach to decision making. Decisions at Google are made in teams, rather than being made by a senior person and then implemented top-down. It is common for several team members to tackle a problem and for employees to try to influence each other using rational persuasion and data. However, gut feeling has little impact on the way decisions are made.

Rather than saying, 'I think…', employees are encouraged to say, 'The data suggests…'.

A key issue for Google is how to maintain its values as it expands. It is a company which emphasises its desire to hire the smartest people, but this could mean that it will attract people with big egos who are difficult to work with. Google realised that its strength comes from its 'small company' values, which emphasise risk taking, agility and cooperation. Therefore, the recruitment process is very important at Google. The process is extremely rigorous, and each candidate may be interviewed by as many as eight people on several occasions. Through this scrutiny, the company is trying to ensure it selects 'Googley' employees who will share the company's values, perform at high levels, and be liked by their colleagues within the company.

Note: Although this example relates to Google, the concept of data-driven decision making is one which we will discuss in more detail in Data analysis in relation to data analytics; in particular, predictive analytics.

2.1 Challenges that inform structure

Johnson, Scholes and Whittington identify three major groups of challenges for 21st century organisational structures:

(a) Flexibility of organisational design. The rapid pace of environmental change and increased levels of environmental uncertainty demand flexibility of organisational design.

(b) Effective systems. The creation and exploitation of knowledge requires effective systems to link the people who have knowledge with the applications that need it.

(c) Internationalisation. Internationalisation creates new types and a new scale of technological complexity in communication and information systems; at the same time, diversity of culture, practices and approaches to personal relationships bring their own new problems of organisational form.

Of these three sets of issues, the need to capture, organise and exploit knowledge is probably the most pressing for most organisations. An important element of response to this need is therefore an emphasis on the importance of facilitating effective **processes** and **relationships** when designing **structures**. Johnson, Scholes and Whittington use the term **configuration** to encompass these three elements.

2.2 Organisational configuration

Definition

Organisational configuration: An organisation's configuration consists of the structures, processes and relationships through which it operates.

(a) Structure has its conventional meaning of organisation structure (that is, the formal roles, responsibilities and lines of reporting in an organisation).

(b) Processes drive and support people: they define how strategies are made and controlled; and how the organisation's people interact and implement strategy.

(c) Relationships are the connections between people within the organisation; and between those inside it and those on the outside. Relationships outside the organisation are becoming increasingly important in the context of outsourcing, supply chain management and strategic alliances.

Effective processes and relationships can have varying degrees of formality and informality and it is important that formal relationships and processes are aligned with the relevant informal ones.

It is very important to be aware that structures, processes and relationships are **highly interdependent**: they have to work together intimately and consistently if the organisation is to be successful.

2.3 Types of structure

An organisation's formal structure reveals much about it:

- It shows who is responsible for what.
- It shows who communicates with whom, both in procedural practice and, to a great extent, in less formal ways.
- The upper levels of the structure reveal the skills, the organisation values and, by extension, the role of knowledge and skill within it.

Johnson, Scholes and Whittington review seven basic structural types:

- functional
- multidivisional
- holding company
- matrix
- transnational
- team
- project

(You should already be familiar with functional, divisional and matrix structures from your studies of Business Strategy and Technology, but we will recap them here for completeness.)

2.4 The functional structure

Definition

Functional structure: People are organised according to the type of work that they do.

In a functional organisation structure, departments are defined by their **functions**; that is, the work that they do. It is a traditional, common-sense approach and many organisations are structured like this. Primary functions in a manufacturing company might be production, sales, finance and general administration. Sub-departments of marketing might be selling, advertising, distribution and warehousing.

2.4.1 Advantages of functional departmentation

- It is based on work specialism and is therefore logical
- The firm can benefit from economies of scale
- It offers a career structure

2.4.2 Disadvantages

- It does not reflect the actual business processes by which value is created
- It is hard to identify where profits and losses are made on individual products
- People do not have an understanding of how the whole business works
- There are problems of coordinating the work of different specialisms
- Hampers cross functional creativity and innovation (ie, sharing knowledge between functions)

2.5 Multidivisional and holding company structures

Definition

Multidivisional structure: Divides the organisation into semi-autonomous divisions that may be differentiated by territory, product or market. The holding company structure is an extreme form in which the divisions are separate legal entities.

(a) Divisionalisation is the division of a business into autonomous regions or product businesses, each with its own revenues, expenditures and profits.

(b) Communication between divisions and head office is restricted, formal and related to performance standards. Influence is maintained by headquarters' power to hire and fire the managers who are supposed to run each division.

(c) Divisionalisation is a function of organisation size, in numbers and in product-market activities.

Mintzberg believes there are inherent problems in divisionalisation.

(a) A division is partly insulated by the holding company from shareholders and capital markets, which ultimately reward performance.

(b) The economic advantages it offers over independent organisations 'reflect fundamental inefficiencies in capital markets'. (In other words, different product-market divisions might function better as independent companies.)

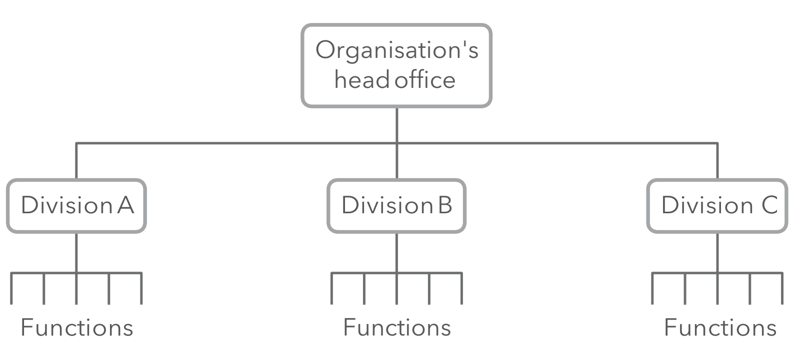
(c) The divisions are more bureaucratic than they would be as independent corporations, owing to the performance measures imposed by the strategic apex.

(d) Headquarters management have a tendency to usurp divisional profits by management charges, cross-subsidies, head office bureaucracies and unfair transfer pricing systems.

(e) In some businesses, it is impossible to identify completely independent products or markets for which divisions would be appropriate. One particular problem for divisional structures is that they struggle to cope with large customers who span the divisions.

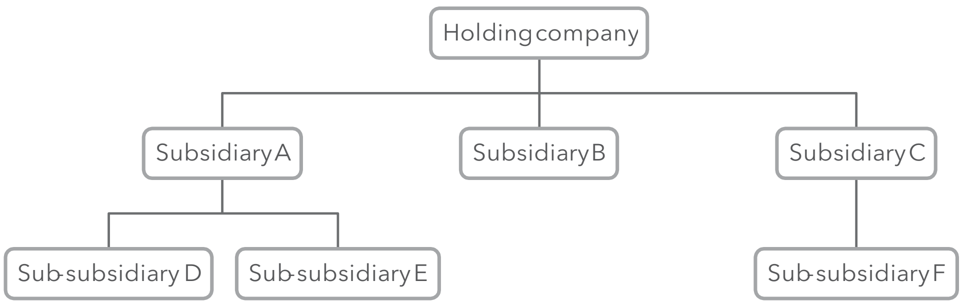
The multidivisional structure might be implemented in one of **two forms**.

(a) Simple divisionalisation



This enables concentration on particular product-market areas, overcoming problems of functional specialisation at a large scale. Problems arise with the power of the head office, and control of the resources. Responsibility is devolved, and some central functions might be duplicated.

(b) The holding company (group) structure is a radical form of divisionalisation. Subsidiaries are separate legal entities. The holding company can be a firm with a permanent investment or one that buys and sells businesses or interests in businesses: the subsidiaries may have other shareholders.



Divisionalisation has some advantages, despite the problems identified.

(a) It focuses the attention of subordinate management on business performance and results.

(b) Management by objectives is the natural control default.

(c) It gives more authority to junior managers, and therefore provides them with work that grooms them for more senior positions in the future.

(d) It provides an organisational structure which reduces the number of levels of management. The top executives in each division should be able to report direct to the chief executive of the holding company.

2.6 The matrix structure

Definition

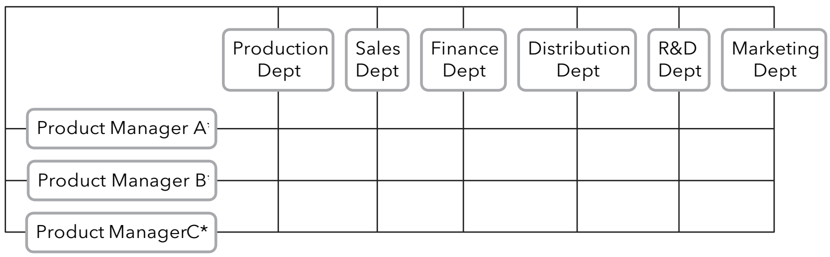
Matrix structures: Attempt to ensure coordination across functional lines by the embodiment of dual authority in the organisation structure. Matrix structures provide for the formalisation of management control between different functions, while at the same time maintaining functional departmentation. It can be a mixture of a functional, product and territorial organisation.

A golden rule of classical management theory is **unity of command**: an individual should have one boss. (Thus, staff management can only act in an advisory capacity, leaving authority in the province of line management alone.) Matrix and project organisation may possibly be thought of as a reaction against the classical form of bureaucracy by establishing a structure of **dual command**, either temporary (in the form of projects) or permanent (in the case of matrix structure).

2.7 Matrix organisation

The matrix organisation imposes the multidisciplinary approach on a permanent basis. For example, it is possible to have a product management structure superimposed on top of a functional departmental structure in a matrix; product or brand managers may be responsible for the sales budget, production budget, pricing, marketing, distribution, quality and costs of their product or product line, but may have to coordinate with the research and development (R&D), production, finance, distribution and sales departments in order to bring the product to the market and achieve sales targets.

Figure 3.1: Matrix organisation



* The product managers may each have their own marketing team, in which case the marketing department itself would be small or non-existent.

A key issue in a matrix structure is the need for the division of authority between product managers and functional managers to be carefully defined.

Matrix management **challenges classical ideas** about organisation by rejecting the idea of one person, one boss.

A subordinate cannot easily take orders from two or more bosses, and so an arrangement has to be established, perhaps on the following lines.

(a) A subordinate takes orders from one boss (the functional manager) and the second boss (the project manager) has to ask the first boss to give certain instructions to the subordinate.

(b) A subordinate takes orders from one boss about some specified matters and orders from the other boss about different specified matters. The authority of each boss would have to be carefully defined. Even so, good cooperation between the bosses would still be necessary.

2.7.1 Advantages of a matrix structure

(a) It offers greater flexibility. This applies both to people, as employees adapt more quickly to a new challenge or new task, and develop an attitude which is geared to accepting change; and to task and structure, as the matrix may be short term (as with project teams) or readily amended (eg, a new product manager can be introduced by superimposing his tasks on those of the existing functional managers). Flexibility should facilitate efficient operations in the face of change.

(b) It should improve communication within the organisation.

(c) Dual authority gives the organisation multiple orientation so that functional specialists do not get wrapped up in their own concerns.

(d) It provides a structure for allocating responsibility to managers for end results. A product manager is responsible for product profitability, and a project leader is responsible for ensuring that the task is completed.

(e) It provides for interdisciplinary cooperation and a mixing of skills and expertise.

A matrix organisation is most suitable in the following situations.

(a) There is a fairly large number of different functions, each of great importance.

(b) There could be communications problems between functional management in different functions (eg, marketing, production, R&D, personnel, finance).

(c) Work is supposed to flow smoothly between these functions, but the communications problems might stop or hinder the workflow.

(d) There is a need to carry out uncertain, interdependent tasks. Work can be structured so as to be task centred, with task managers appointed to look after each task, and provide the communications (and cooperation) between different functions.

(e) There is a need to achieve common functional tasks so as to achieve savings in the use of resources – ie, product divisions would be too wasteful, because they would duplicate costly functional tasks.

2.6.2 Disadvantages of matrix organisation

(a) Dual authority threatens a conflict between managers. Where matrix structure exists it is important that the authority of superiors should not overlap and areas of authority must be clearly defined. Subordinates must know to which superior they are responsible for each aspect of their duties.

(b) One individual with two or more bosses is more likely to suffer role stress at work.

(c) It is sometimes more costly – eg, product managers are additional jobs which would not be required in a simple structure of functional departmentation.

(d) It may be difficult for the management to accept a matrix structure. It is possible that a manager may feel threatened that another manager will usurp his or her authority.

(e) It requires consensus and agreement which may slow down decision making.

2.8 The transnational structure

Definition

The transnational structure: Attempts to reconcile global scope and scale with local responsiveness.

In international strategy it has been difficult to combine **responsiveness to local conditions** with the degree of coordination necessary to achieve major **economies of scale**. The essence of the extreme case of the problem is an enforced choice between a low-cost product originally specified for a single market (typically the US), which is potentially uninteresting or even actively shunned in other markets, and a range of low volume, and therefore high-cost, products, each specified for and produced in a single national market. These two cases are known as the **global** and the **multi- domestic** approaches to organisation and they have their own characteristic organisational structures. The global approach leads to **global divisions**, each responsible for the worldwide production and marketing of a related group of standardised products. The multi-domestic approach leads to the setting up or acquisition of local subsidiaries, each with a great deal of autonomy in design, production and marketing.

The **transnational structure** attempts to combine the best features of these contrasting approaches in order to create **competences of global relevance**, **responsiveness to local conditions** and **innovation and learning** on an organisation-wide scale. Bartlett and Ghoshal describe it as a **matrix** with two important general features.

(a) It responds specifically to the challenges of globalisation.

(b) It tends to have a high proportion of fixed responsibilities in the horizontal lines of management.

The transnational organisation has three specific operational characteristics:

(a) National units are independent operating entities, but also provide capabilities, such as R&D, that are used by the rest of the organisation.

(b) Such shared capabilities allow national units to achieve global, or at least regional, economies of scale.

(c) The global corporate parent adds value by establishing the basic role of each national unit and then supporting the systems, relationships and culture that enable them to work together as an effective network.

If it is to work, the transnational structure must have very clearly defined managerial roles, relationships and boundaries.

(a) Managers of global products or businesses have responsibilities for strategies, innovation, resources and transactions that transcend both national and functional boundaries.

(b) Country managers must feed back local requirements and build unique local competences.

(c) Functional managers nurture innovation and spread best practice.

(d) Managers at the corporate parent lead, facilitate and integrate all other managerial activity. They must also be talent spotters within the organisation.

2.8.1 Disadvantages of the transnational structure

The transnational structure makes great demands on its managers, both in their immediate responsibilities and in the complexity of their relationships within the organisation. The complexity ofthe organisation can lead to the difficulties of control and the complications introduced by internal political activity.

2.9 The team-based structure

Both transnational and project-based structures extend the matrix approach by using cross-functional teams. The difference is that projects naturally come to an end, and so project teams disperse at this point.

A team-based structure extends the matrix structure's use of both vertical functional links and horizontal, activity-based ones by using **cross-functional teams**. Business processes are often used as the basis of organisation, with each team being responsible for the processes relating to an aspect of the business. Thus, a purchasing team might contain procurement specialists, design and production engineers and marketing specialists in order to ensure that outsourced sub-assemblies were properly specified and contributed to brand values as well as being promptly delivered at the right price.

2.10 The project-based structure

Definition

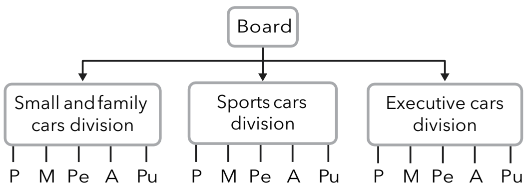
Project-based structure: Employees from different departments work together on a temporary basisto achieve a specific objective or to address a specific issue. Employees within the team perform specific job functions.

The project-based structure is similar to the team-based structure except that projects, by definition,have a finite life and so, therefore, do the project teams dealing with them. This approach is very flexible and is easy to use as an adjunct to more traditional organisational forms. Management of projects is a well-established discipline with its own techniques. It requires clear project definition, ifcontrol is to be effective, and comprehensive project review, if longer-term learning is to take place.

Interactive question 3: Car manufacturer

Danley Ltd is a car manufacturing company. It commenced business 40 years ago and is currently organised along divisional lines.

An outline organisation chart is shown as follows:



Key

P	=	Production	**Locations**
M	=	Marketing	Small and family Luton
Pe	=	Personnel	Sports Bristol
A	=	Accounting	Executive Newcastle
Pu	=	Purchasing	

The company is very keen to cut costs and improve profits before being floated on the stock exchange in 20X5. The current organisation structure owes much to history, reflecting the purchase of the sports car and executive car businesses in the past. Each division uses the same suppliers of components for cars and has the same accounting system.

Both the small and family cars division and the sports cars division use production line systems, whereas the executive cars division uses a small batch production system. Money is available for investment in new production systems.

The following comments have been made to you:

'Because of the slow production system we use where hold-ups between departments occur regularly, we only make two types of executive car, yet we sell all we can make. The marketing department feels that if we could make more types of car, including minor variations around a basic type, we could sell more. I must say that most of my workers seem to get rather bored making the same two cars.' Richard Ingram (Managing Director, Danley Ltd)

'My department has been arguing for some time that we're missing out on cost savings by having three purchasing functions. All purchasing can be done by one function. Unfortunately, some of the cost savings will come from redundancies. The best people in the three functions should be put together to form one function in Luton.' Ray Pay (Purchasing Manager, Small and family cars division)

Requirement

Recommend, with reasons, a revised organisation structure that would best suit the circumstances of the firm.

See **Answer** at the end of this chapter.

2.11 Choosing a structure

An organisational structure must provide a means of exercising appropriate **control**; it must also respond to the three challenges identified earlier: **rapid change**, **knowledge management** and **globalisation**.

In many cases, it is likely that there won't be a single model of organisational structure suitable for all purposes: managers must make choices as to which challenges they regard as most pressing.

Goold and Campbell propose nine tests that may be used to assess proposed structures. The first four relate to the organisation's **objectives** and the **restraints** under which it operates.

(a) **Market advantage.** Where processes must be closely coordinated in order to achieve market advantage, they should be in the same structural element.

(b) **Parenting advantage.** The structure should support the parenting role played by the corporate centre. For example, a 'portfolio manager' would need only a small, low-cost corporate centre.

(c) **People test.** The structure must be suited to the skills and experience of the people that have to function within it. For example, skilled professionals used to a team-working approach might be frustrated by a move to a functional hierarchy.

(d) **Feasibility test**. This test sweeps up all other constraints, such as those imposed by law, stakeholder opinion and resource availability.

The remaining tests relate to matters of design principle.

(a) **Specialised cultures.** Specialists should be able to collaborate closely.

(b) **Difficult links.** It is highly likely that some interdepartmental links will be subject to friction and strain. A good example would be the link between sales and production when there are frequent problems over quality and delivery. A sound structure will embody measures to strengthen communication and cooperation in such cases.

(c) **Redundant hierarchy.** The structure should be as flat as is reasonably attainable.

(d) **Accountability.** Effective control requires clear lines of accountability.

(e) **Flexibility.** The structure must allow for requirements to change in the future, so that unexpected opportunities can be seized, for example.

2.12 Network structure

A more modern idea is that of a **network structure**, applied both within and between organisations. Within the organisation, the term is used to mean something that resembles both the **organic** organisation and the structure of informal relationships that exists in most organisations alongside the formal structure. Such a loose, fluid approach is often used to achieve innovative response to changing circumstances.

The network approach is also visible in the growing field of outsourcing (see section 4.13) as a strategic method. Complex relationships can be developed between firms, who may both buy from and sell to each other, as well as the simpler, more traditional practice of buying in services such as cleaning.

Writers such as Ghoshal and Bartlett point to the likelihood of network organisations becoming the corporations of the future, replacing formal organisation structures with innovations such as **virtual teams**. Virtual teams are interconnected groups of people who may not be in the same office (or even the same organisation) but who:

- share information and tasks
- make joint decisions
- fulfil the collaborative function of a team

Organisations are now able to structure their activities very differently:

(a) **Staffing.** Certain areas of organisational activity can be undertaken by freelance or contract workers. Charles Handy's 'shamrock organisation' is gaining recognition as a workable model for a leaner and more flexible workforce, within a controlled framework. The question is: how can the necessary control be achieved, though?

(b) **Leasing of facilities** such as machinery, IT and accommodation (not just capital assets) is becoming more common.

(c) **Production** itself might be outsourced, even to offshore countries where labour is cheaper. (This, and the preceding point, of course begs the question: which assets and activities do companies retain, and which ones do they 'buy-in'?)

Interdependence of organisations is emphasised by the sharing of functions and services. Databases and communication create genuine interactive sharing of, and access to, common data.

Johnson, Scholes and Whittington give four examples of network organisational structures:

(a) Teleworking, which combines independent work with connection to corporate resources.

(b) Federations of experts who combine voluntarily. This is common in the entertainment industry.

(c) One-stop shops for professional services in which a package of services is made available by a co-ordinating entity. The point of access to such a conglomerate might be a website.

(d) Service networks such as the various chains of franchised hotels that cooperate to provide centralised booking facilities.

Network structures are also discerned between competitors, where **cooperation on non-core competence matters** can lead to several benefits:

- cost reduction
- increased market penetration
- experience curve effects

Typical areas for cooperation between **competitors** include R&D and distribution chains. The spread of the Toyota system of manufacturing, with its emphasis on just-in-time, quality and the elimination of waste, has led to a high degree of integration between the operations of industrial **customers** and their **suppliers**.

3 Managing change

Section overview

- Introducing new strategic choices represents a form of change. As such, organisations must understand how change can be achieved and, in particular, how resistance to change can be overcome.
- Equally, if it becomes clear that an organisation's current strategy has not worked as had been intended, then the organisation will need to make changes to its strategy or tactics in order to improve its performance.

It is very hard to ignore the impact of change on contemporary businesses. However, the visibility of change in this way also highlights the importance of understanding and managing the impact of change on businesses and the people who work for them.

Change is often an integral part of strategy. It is very important to be aware that strategic change and change management issues may be implicit in a scenario rather than being the explicit subject of a question requirement. You must be able to recognise the factors that drive change and constrain the ways in which it may be managed.

However, before we start to look at change management theories and models, we will look at some of the practical issues involved by using a case study.

Context example: McDonald's fast food restaurants

Society's attitudes to fast food have been changing in the last few years and, if the fast food industry is to remain successful, it needs to recognise these shifting customer needs and respond to them. Concerns about rising obesity levels and advances in healthcare have highlighted the importance of a healthy diet. Increased access to mass communications (television, internet) have meant that consumers are becoming more informed about issues and are demanding better choices in convenience foods.

Meeting stakeholder needs

Changing **customer needs and requirements** illustrate the more general issue that the business environment is not static, but evolves over time, reflecting changes in the broader social environment.

However, customers are not the only important stakeholder whose interests McDonald's needs to consider.

Other stakeholders include:

- **Business partners** – Including franchisees and suppliers. (Around 90% of McDonald's restaurants are run by franchisees.)
- **Employees** – When taken together, the McDonald's corporation and its franchisees employ approximately 400,000 people, with more than 35,000 restaurants spread over more than 100 countries.
- **Opinion leaders** – Including governments, the media, health professionals and environmental groups. McDonald's is very conscious of its corporate social responsibility, and constantly looks to adapt its operations to increase the positive impact it can have on society.

Responding to customers' needs

McDonald's conducts market research and listens to what its customers want to see on its menu, as well as to understand customer opinions about brand image, quality, service, cleanliness and value.

One of the messages that emerged from this research in recent years was that customers wanted more choice, with healthier and lighter food options. Customers also wanted greater visibility in food labelling and more information about what they were eating: for example, how much fat and how much salt their meals contained.

Creating menu changes

McDonald's took a twofold approach to converting these customer findings into menu changes. On the one hand, they improved existing products, and on the other, they created new ones.

Improving existing products – Changes included introducing new cooking oil blends which were low in saturated fat, and reducing the amount of salt used when preparing the meals.

New products – These include new salad and deli choice ranges, which contain low levels of fat. Also McDonald's has introduced wraps, which are seen as healthier than a burger and fries, which it hopes will appeal to calorie-conscious customers.

However, despite the changes, the new menu options are still consistent with the McDonald's brand. The packaging, presentation and service are still recognisably McDonald's.

McDonald's experience

The 'customer experience' is another important aspect of the McDonald's brand, and the company is looking to enhance service and technology so that the convenience of a McDonald's experience is aligned to customers' needs.

As we mentioned in Strategic choice, many restaurants have been upgraded to include in-store touchscreen kiosks, mobile charging docks and table service, and the company has identified the introduction of 'mobile ordering and pay' as a major worldwide priority.

'Mobile ordering and pay' will allow customers to order using an app in selected restaurants. People can choose their meal, check-in to the restaurant by scanning one of the QR codes, pay using a range of payment options (such as ApplePay), and then pick up their food.

Home delivery

Another, potentially transformational, change McDonald's are making is the introduction of a home delivery service. In June 2017, the company announced a trial partnership with Uber Eats in the UK, making its menu available for home delivery in London, Nottingham and Leeds.

McDonald's has identified that nearly 75% of the population in its top markets lives within three miles of a McDonald's restaurant, so – according to the company's CEO – it has 'an unmatched advantage to get food to people quickly'.

More generally McDonald's is continuing to increase its delivery platform as a way of increasing the convenience customers receive from it. By the end of 2017, McDonald's was delivering meals from over 10,000 restaurants worldwide. In addition to the convenience they bring, delivery transactions also tend to result in higher average values and higher customer satisfaction ratings than 'in-store' transactions.

Communicating the changes

Although making the changes to products and processes is important, it is equally important to communicate the changes to the consumer – particularly in relation to new products. To this end, McDonald's developed advertising campaigns that were designed to highlight the new healthier food options, countering public perceptions of McDonald's as only selling unhealthy meals.

McDonald's now also plans to focus on increasing awareness and demand for delivery services in the areas where delivery is offered.

McDonald's has made use of a variety of advertising media – print, billboards, television and the internet – and it targets its audience for each media type carefully. For example, website and social media advertising is designed to be appealing to teenagers, so is both interactive and informative, making use of the latest design and technology.

The McDonald's example illustrates how change occurs in a social context. This is an important point to recognise, because change management does not simply involve a choice between technological, organisational and people-orientated solutions. Rather, it involves finding solutions that combine these factors to provide integrated strategies, which help improve performance and results.

Change management is a crucial part of any project, which leads or enables people to accept new processes, technologies, systems, structures and values. Change management consists of the set of activities that help people move from their present way of working to a new, and hopefully improved, way of working.

3.1 The need for change

Definition

Change management: 'The continuous process of aligning an organisation with its marketplace anddoing it more responsively and effectively than competitors.' (Berger)

Any organisation that ignores change does so at its own peril, because its inactivity is likely to weaken the organisation's ability to manage future scenarios.

The management guru, Peter Drucker, argues that a 'winning strategy' will require information about events and conditions outside the organisation, because only once an organisation has that information can it prepare for the new changes and challenges which arise from shifts in the world economy.

This does not, however, mean that implementing a strategic change will necessarily improve an organisation's performance. For example, in the UK, the retailer Marks & Spencer has introduced a number of strategic initiatives since the 1990s in response to the changing competitive forces it faces (eg, introducing new designers; new product ranges; switching from UK suppliers to overseas suppliers; celebrity endorsements). However, these have not helped the company increase its profits, particularly in relation to non-food items (clothing; homeware), where profits have continued to fall.

3.2 The process of change

In the same way that choosing a business strategy encourages an organisation to assess its current **position**, evaluate its strategic **choices**, and then decide on a course of action to **implement**, we can also look at change management as a sequence of stages.

For an organisation to respond to the need for change, it needs a way of **planning for**, and implementing, changes.

Although each situation should be considered individually, we can still identify some general steps which could be followed during a major change initiative.

Change processes usually begin with a change '**trigger**'. The trigger identifies the need or desire for change in a particular area.

Triggers include:

External events

- changes in the economic cycle (for example, an economic downturn) or the wider economic or political environment (for example, UK's decision to leave the EU: 'Brexit')
- new laws or regulations affecting the industry
- stiffer competition from rivals or from new entrants
- arrival of new technology (for example, the impact of faster communications and digital downloads on music and film entertainment). More generally, as we have seen in Strategic choice, digital technology can prompt organisations to challenge their existing ways of operating, and to develop digital strategies.

Internal events

- arrival of new senior management with different strategies, priorities and styles
- implementation of new technologies or working practices
- relocation of the business to different city or country

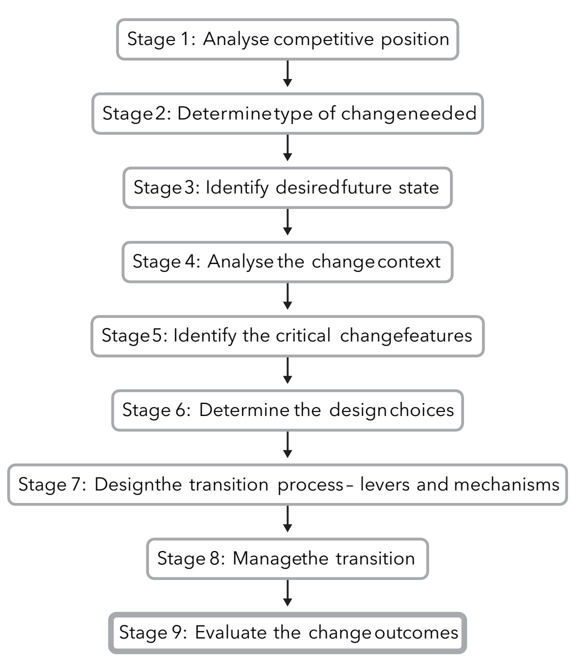
These triggers will force change. The issue for management is whether to seek to manage the change to get the best outcome, or just to let the change event run its course with uncertain outcomes.

In response to the trigger, some tentative plans about possible changes are prepared. Wherever possible, an organisation should consider a range of alternatives, and consider the advantages and disadvantages of each. **Stakeholders**' probable reactions to the changes should also be considered.

A preferred solution should then be chosen from the range of alternative options, and a **timetable** for implementing the changes should be established. The **speed** at which change is implemented is likely to depend on the nature of the change and people's anticipated reactions to it.

The plan for change then needs to be **communicated** to everyone who will be involved in implementing it, before the actual implementation stage gets underway.

Balogun and Hope Hailey summarise the process of change in a change flow chart. Figure 3.2: Process of change (Balogun & Hope Hailey)



Stages 1 and 2 of the flow chart can be summarised as the '**why and what**' of change, while Stages 3 to 9 can be summarised as the '**how**' of change.

Having identified the need for change in an organisation, and plotted an outline strategy, managers still need to be able to implement the desired change(s) successfully before it can begin to yield benefits for the organisation.

3.3 Lewin's three stage model (The 'ice cube' model)

Although the essence of change is that it enables a person, department or organisation to move from a current state to a future state, Lewin suggested that organisational changes actually have **three steps** (stages): '**unfreeze**', '**move**' and '**freeze**' or '**refreeze**'. (In this Workbook we will refer to the third stage as 'refreeze' because we think it describes the process more clearly. However, in his original model, Lewin actually referred to the stage simply as 'freeze'.)

It is important to note that change involves relearning: not merely learning something new, but trying to unlearn what is already known and practised in an organisation. This is a key part of the 'unfreeze' stage.

3.3.1 Unfreeze

This first step involves unfreezing the current state of affairs, and creating the motivation to change. This means defining the current state of an organisation, highlighting the forces driving change and those resisting it, and picturing a desired end state.

Crucially, the unfreeze stage involves making people within an organisation ready to change: making them aware of the **need (trigger) for change**, and creating a **readiness to change** among the workforce.

A key part of this stage is **weakening the restraining forces** that are resisting change, and

strengthening the driving forces that are promoting change. Approaches to the unfreeze stage include:

(a) Physically removing individuals from their accustomed routines, sources of information and social relationships, so that old behaviours and attitudes are less likely to be reinforced by familiarity and social influence.

(b) Consulting team members about proposed changes. This will help them to feel less powerless and insecure about the process. It may also involve them in evaluation and problem solving for more effective change measures – which will create a measure of ownership of the solutions. This, in turn, may shift resistant attitudes.

(c) Confronting team members' perceptions and emotions about change. Failure to recognise and deal with emotions only leads to later problems. Negative emotions may be submerged, but will affect performance by undermining commitment.

(d) Positively reinforcing demonstrated willingness to change: validating efforts and suggestions with praise, recognition and perhaps added responsibility in the change process.

If the need for change can be 'sold' to the team as immediate, and its benefits highlighted – for example, by securing individuals' jobs for the future – the unfreeze stage will be greatly accelerated.

Either way, effective **communication**, explaining the need for change, is essential for the unfreeze process to work successfully.

'Unfreezing' an organisation may sound simple enough in theory but, in practice, it can be very difficult because it involves making people ready to change.

Rational argument will not necessarily be sufficient to convince individuals of the need to change, particularly if they stand to lose out from the change, or will have to make significant personal changes as a result of the change.

Sometimes the need for change may be obvious to all employees – for example, the arrival of a new competitor in the market, leading to a dramatic reduction in market share.

However, if the need for change is less obvious, then the 'unfreezing' process may need to be 'managed' in some way, to make staff appreciate the need for change.

For example:

- encourage debate about the appropriateness or effectiveness of the current way of operating (including current management styles)
- publish information showing how the organisation compares with its competitors in key performance areas

3.3.2 Change (Move)

The change (move) stage involves learning new concepts and new meanings for existing concepts. This is the **transition stage**, by which an organisation moves from its current state to its future state.

It is important that an organisation encourages the **participation** and **involvement** of its staff in this phase so that they do not feel alienated by the change process.

This phase is mainly concerned with identifying the new, desirable behaviours or norms; communicating them clearly and positively; and encouraging individuals and groups to '**buy into**' or '**own**' the new values and behaviours.

Change is facilitated by:

(a) Identification: Encouraging individuals to identify with role models from whom they can learn new behaviour patterns. For example, the team leader should adopt the values and behaviours they expect the team to follow. Team members who have relevant skills, experience and/or enthusiasm may be encouraged to coach others.

(b) Internalisation: Placing individuals in a situation in which new behaviours are required for success, so that they have to develop coping behaviours. Pilot schemes or presentation of the changes to others may help in this process.

3.3.3 Refreeze (Freeze)

The refreeze stage involves internalising new concepts and meanings. It focuses on **stabilising (refreezing) the new state of affairs**, by setting policies to embed new behaviours, and establishing new standards.

It is crucial that the **changes are embedded** throughout an organisation to ensure that staff do not lapse back into old patterns of behaviour.

Once new behaviours have been adopted, the refreeze stage is required to consolidate and reinforce them, so that they become integrated into the individual's habits, attitudes and relationship patterns.

(a) Habituation effects (getting accustomed to the new situation) may be achieved over time, through practice, application and repetition.

(b) Positive reinforcement can be used to reward and validate successful change. For example, an element of a staff bonus scheme could be dependent on staff members adopting the new methodology.

In the 'unfreeze' stage of the three stage model, we highlighted the interaction of driving forces promoting change, and resisting forces preventing it. Lewin recognised the importance of this interaction and so, alongside the three stage model, he also introduced the idea of force field analysis.

In order to recommend suitable change strategies, it is important to understand the specific motivational challenges presented in the scenario. The process of managing change varies across organisations so ensure you fully understand the business context in order to provide practical advice relevant to the managers and employees in the scenario.

3.4 Lewin's forcefield analysis

Force field analysis assists change management by examining and evaluating – in a summary form –the forces 'for' and 'against' the change.

Force field **analysis** consists of identifying the factors that promote or hinder change. In order for change to be successfully implemented, promoting forces need to be exploited and the effect of hindering forces need to be reduced, such that the driving forces for change outweigh those forcesresisting change.

The following suggests a practical route for applying the force field analysis:

(a) Define the problem in terms of the current situation and the desired future state.

(b) List the forces supporting and opposing the desired change and assess both the strength and the importance of each one.

(c) Draw the force field diagram.

(d) Decide how to strengthen or weaken the more important forces as appropriate and agree with those concerned. Weakening might be achieved by persuasion, participation, coercion or bargaining, while strengthening might be achieved by a marketing or education campaign, including the use of personal advocacy.

(e) Identify the resources needed.

(f) Make an action plan including event timing, milestones and responsibilities.

Note, however, that force field analysis itself **does not give any detailed insights into how to manage change**, or how to overcome the resistance to change.

Lewin's basic idea was that the change process consisted of two opposing fields of force, one encompassing the driving forces for change, the other encompassing the resisting forces.

In this form, Lewin's model is relatively straightforward: the central line represents the current situation, and in a change scenario, we can identify both those sets of forces that are trying to effect change and those which are resisting or providing barriers.

Management action therefore needs to be directed towards reducing the resisting forces, turning them around, or overcoming them by increasing the drivers for change.

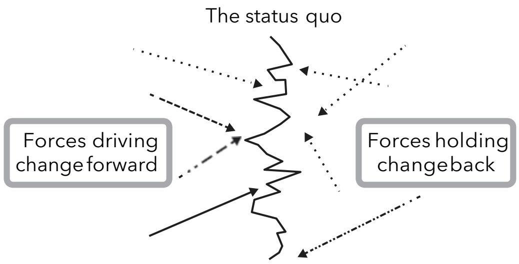
However, there are several drawbacks to force field analysis.

(a) **Firstly,** it depicts change as being 'insider' driven – the presumption is that some people in the business are committed to a change and others are not, and the task is to tilt the balance in favour of those who have that commitment. Although Lewin would not have approved of it, this can easily be interpreted as a technique for enabling managers to force their decisions on an unwilling workforce.

(b) **The second** issue is that it presumes that all change is desirable. Presentations of this model do not usually include discussion of how change should be resisted, yet there are probably as many occasions when a proposal is undesirable or unworkable as there are ones where it is to be encouraged.

(c) **The Lewin image** as it is generally presented depicts all driving forces as operating in the same direction, and all resisting forces as running in the opposite direction. In practice, the key influences in a situation – usually the more powerful stakeholders – are pointing in varying directions, as in the following.

Figure 3.3: Force field analysis



The status quo

The point of Figure 3.3 above is that it reflects the complexity of the force fields in a change scenario more accurately than a simple illustration. For example, people may resist change for different reasons and so different solutions will be needed to manage their resistance to change.

Resisting forces are central to Lewin's approach to change management. It is therefore important both to identify these resisting forces and then to think of ways to deal with them. (Before doing this, though, bear in mind a point made earlier, that not all change is desirable.)

Sources of resistance are generally linked to human interests – hygiene factors mostly, to use Herzberg's concept. Senior has set out the following as the main sources of individual resistance:

- fear of the unknown
- dislike of uncertainty
- potential loss of power
- potential loss of rewards
- potential lack or loss of skills

These sources of resistance spring from direct human concerns. Interestingly, Senior also identifies a number of organisational resistances, such as resource constraints, and inertias resulting from the interlocked nature of the different features and processes of the organisation. But for the most part,

organisational resistances feed back to human concerns. Where they do not, there is unlikely to be a strategic change problem, but perhaps a technical problem of issues such as coordination or process design.

Interactive question 4: Managing change

After a difficult few years trading, a new chief executive, Brian Parsons, has been appointed to the board of Timbermate Ltd. A large divisionalised company, it specialises in the production of wood- based products, from plywood and chipboard, to kitchens and conservatory windows.

In his initial press interview, Parsons stated that the costs incurred by the business were far too high and that efficiency and productivity were unacceptably low. He has made clear his intention to turn the business around. However, there have already been rumblings from the union to which most of the workers belong. They are not prepared to negotiate over wages or working conditions.

Timbermate is a major importer of wood. Russian and Scandinavian joinery redwood, together with spruce from North America, makes up a high percentage of imports. They also import from the Baltic States. Although sterling is strong against the dollar, it has been struggling lately against the other currencies. There have been signs that some of Timbermate's overseas suppliers are considering expanding into the UK directly. There has also been an increase in the popularity of UPVC alternatives in a number of Timbermate's core business areas.

A number of operational issues need addressing. Recently, complaints about quality and product specification have become more common. Additionally, the delivery fleet has become less reliable and several key customers have been let down. However, many of the senior managers do not seem unduly concerned. They often talk of previous timber crises and how these problems are just part of the nature of the industry. They rarely stay at their desks after 5pm. There is little in the way of knowledge sharing and it is unusual for staff in any one division to even know the names of staff in the others.

One key pillar of Parsons' plan is to introduce a fully integrated information system, covering (among others) stock control and e-procurement, computer-aided design and manufacture, resource planning and management accounting. The system is to operate across all the divisions and allow potential cross-selling and better customer management.

Requirements

3.1 Analyse the forces for and against change at Timbermate Ltd.

3.2 Recommend to Brian Parsons how he might best manage the change process.

See Answer at the end of this chapter.

3.5 Types of change

When faced with a potential change situation, an organisation has to analyse the nature of the change, in order to identify the most appropriate way of managing the change.

Change can be classified in relation to the **extent** of the change required and the **speed** with which that change needs to be achieved.

Speed – Change can range from an all at once, 'big bang' change to a series of step by step, incremental changes.

Extent – The extent of change can range from an overall **transformation** of an organisation's central assumptions, culture and beliefs to a **realignment** of its existing assumptions. Although a realignment may affect the way an organisation operates at a practical level, it will not lead to an underlying change in the organisation's culture.

In their book *Exploring Strategic Change*, Balogun and Hope Hailey illustrate that there are four main types of change, based on differences in the speed and extent of change required. They present these types of change in a matrix, with the two axes being the **nature** of the change required (speed) and the **scope** of the change required (extent).

The measure of the scope of change is whether or not the methods and assumptions of the existing **paradigm** must be replaced. (The paradigm is the set of assumptions and beliefs which are taken for granted in an organisation and define that organisation and its culture.)

The **nature** of change may be incremental and built on existing methods and approaches, or it may require a 'big bang' approach if rapid response is required, as in times of crisis.

Scope of change

		Realignment	Transformation
Nature of change	**Incremental**	Adaptation	Evolution
	'Big bang'	Reconstruction	Revolution

(a) **Adaptation** is the most common type of change. An adaptive change realigns the way an organisation operates, but does not require the development of a new paradigm. It proceeds step by step.

(b) **Reconstruction** can also be undertaken within an existing paradigm but requires rapid and extensive action. It is a common response to a long-term decline in performance, or to a changing competitive context.

(c) **Evolution** is an incremental process that leads to a new paradigm. It may arise from careful analysis and planning or may be the result of learning processes. Evolutionary change is often undertaken in anticipation of the need for future change. Its transformational nature may not be obvious while it is taking place.

(d) **Revolution** is a rapid and wide-ranging response to extreme pressures for change, and can often be triggered by changes in the competitive conditions an organisation is facing. Because revolution is both wide ranging and fast paced, it is likely to involve a number of simultaneous initiatives, dealing with different aspects of a business. Revolution will be very obvious and is likely to affect most aspects of both what the organisation does and how it does them.

While Balogun and Hope Hailey talk about realignment and transformation, Johnson, Scholes and Whittington categorise types of strategic change as being either **incremental** or **transformational**.

Again, however, a matrix can be used; change is either **incremental** or **transformational**, and the approach to managing change is described as being either **reactive** or **proactive**.

Incremental change is characterised by a series of small steps, and does not challenge existing organisational assumptions or culture. It is a gradual process, and can be seen as an extension of the past. Management will feel that they are in control of the change process. There is also a feeling that incremental change is reversible. If the change does not work out as planned, the organisation can revert to its old ways of doing things.

Transformational change is characterised by major, significant change being introduced relatively quickly. The existing organisational structures and the organisational culture are changed.

Transformational change is likely to be a top-down process, initiated, and possibly imposed, by senior management. However, unlike incremental change, it requires new ways of thinking and behaving, and leads to discontinuities with the past. Consequently, it is likely to be irreversible.

Transformational change may come about because:

- The organisation is faced with major external events that demand large-scale changes in response.
- The organisation anticipates major changes in the environment and initiates action to make shifts in its own strategy to cope with them.
- Strategic drift has led to deteriorating performance and so leaves the organisation now requiring significant changes to improve performance.

Johnson, Scholes and Whittington's change matrix reflects these different change categories, but also highlights how management's response differs according to the different change categories.

Nature of change

		Incremental	Transformation
Management role	**Proactive**	Tuning	Planned
	Reactive	Adaptation	Forced

The importance of **proactive management** is that it implies that organisational change may be undertaken **before** it is imposed by events. It may, in fact, result from the process of forecasting and be a response to expected developments.

Forced change (for example, where an organisation has to make significant and rapid change due to changes in the external environment) is likely to be both painful and risky for an organisation.

Although these change matrices are a useful summary of types of change, we also need to recognise that the degree of change varies, so in practice there is a **continuum** between **adaptive** changes and **transformation**.

Also, the **severity** of the change depends on **where** it is experienced, or by whom. Redundancies may be an **adaptive** response to changed product market conditions for an organisation, and will preserve the future of the organisation. However, for the people experiencing them, they are likely to be **transformational changes**.

Professional skills focus: Structuring problems and solutions

Change matrices can be helpful in identifying the type of change taking place in the scenario so that you are able to devise a suitable management response. Review the exhibits provided in an exam question to understand the change management issues, before developing creative and pragmatic solutions to address the change type you have identified.

3.6 Examples of change management

In the previous chapter we looked at Ansoff's product-market matrix to highlight the types of strategy organisations can pursue to generate growth.

However, it is important to remember that growth strategies – developing new products, entering new markets, diversification (either organically or through acquisition or joint venture for example) – are also likely to involve change processes in an organisation.

Equally, strategies designed to improve profitability through operational restructuring within a company will also involve change management, as will any plans to dispose of business units or underperforming assets.

Therefore, when thinking about the strategic options an organisation can implement in response to issues identified in a case study scenario, it is important to consider any change management issues the organisation may encounter in order to implement the strategy.

Context example: KPMG's restructuring practice

KPMG's restructuring practice advises that some of the largest companies in the world struggle to be effective at joint ventures – particularly in emerging economies. KPMG points out that even if a good joint venture agreement is signed (which in itself is quite uncommon) this is no guarantee of success. Cultural differences can often be disruptive to the venture, and KPMG has noted that issues which threaten the value of the venture often emerge two to four years into the life of the venture.

However, change management can also be relevant to internal changes and performance measurement. A second illustration from KPMG's restructuring practice highlights work it did with a Group which had concerns about the accuracy of its forecasts, because it was consistently missing cash flow targets. It transpired that the Group needed a more integrated approach to forecasting and working capital management, and as a result of KPMG's work with the Group and local finance teams within the Group, new forecasting processes were planned, designed and rolled out across the Group.

3.6.1 Turnaround

One specific situation when change management will be required is a turnaround situation.

When a business is in terminal decline and faces closure or takeover, there is a need for rapid and extensive change in order to achieve cost reduction and revenue generation. This is a **turnaround strategy**. Johnson, Scholes and Whittington identify seven elements of such a strategy.

Crisis stabilisation

The emphasis is on reducing costs and increasing revenues. An emphasis on reducing direct costs and improving productivity is more likely to be effective than efforts to reduce overheads.

Measures to increase revenue

- tailor marketing mix to key market segments
- review pricing policies to maximise revenue
- focus activities on target market segments
- exploit revenue opportunities if related to target segments
- invest in growth areas

Measures to reduce costs

- cut costs of labour and senior management
- improve productivity

- ensure clear marketing focus on target market segments
- financial controls
- strict cash management controls
- reduce inventory
- cut unprofitable products and services

Severe cost cutting is a common response to crisis but it is unlikely to be enough by itself. The **wider causes of decline** must be addressed.

Leadership changes

It is likely that there will need to be changes to the leadership and senior management of the company (for example, a change of CEO). There are four reasons for this.

(a) The old management allowed the situation to deteriorate and may be held responsible by key stakeholders.

(b) Experience of turnaround management may be required.

(c) Managers brought in from outside will not be prisoners of the old culture and ways of working (which had led to the turnaround situation being necessary) so they will be able to identify fresh approaches and strategies.

(d) A directive approach to change management will probably be required.

Communication with stakeholders

The support of key stakeholder groups – groups with both a high level of power and a high degree of interest in an organisation – such as the workforce and providers of finance – is likely to be very important in a turnaround; it is equally likely that stakeholders did not receive full information during the period of deterioration.

A **stakeholder analysis** (as discussed in Strategic analysis earlier in this Workbook) should be carried out so that the various stakeholder groups can be informed and managed appropriately.

Attention to target markets

A **clear focus on the company's core business and appropriate target market segments** is essential; indeed, a lack of such focus is a common cause of decline. The organisation must become customer- oriented and ensure that it has good flows of marketing information.

Concentration of effort

Resources should be concentrated on the best opportunities to create value. It will almost certainly be appropriate to **review products and the market segments** currently served and eliminate any distractions and poor performers. This may well result in **downsizing**.

A similar review of internal activities would also be likely to show up several candidates foroutsourcing.

Organisational change

In addition to changes to the senior management team, there may also need to be changes to the organisational structure and staffing model throughout the company as a whole. 'People problems' (for example, resistance to change; demoralised staff; and high staff turnover) are often signs of struggling companies.

Significant organisational change may be required to ensure that the organisational structure facilitates clear accountability and responsibility, and will support the effective implementation of the recovery plan. It will also be necessary to ensure that the company's reward system provides incentives to staff to support that plan.

Capable and motivated staff are crucial to an effective turnaround. Therefore it is necessary to identify where staff changes need to be made (based on an assessment of employees' skills and capabilities, as well as their attitude to change).

Critical process improvements

The company's strategic focus (and attempts to reduce costs and increase revenue) will need to be supported by process improvements – for example, through business process re-engineering.

Improvements should focus on key business areas, such as:

- improved sales and marketing
- quality improvements
- improved responsiveness (to customer requirements)
- improved information and control systems

Financial restructuring

Some form of financial **restructuring** is likely to be required. In the worst case, this may involve trading out of insolvency. Even where the business is more or less solvent, capital restructuring may be required, both to provide cash for investment and to reduce cash outflows in the shorter term.

Prioritisation

The eventual success of a turnaround strategy depends, in part, on management's ability to **prioritise necessary activities**, such as those noted above.

3.7 Digital transformation and implementing digital strategy

In Strategic choice, we identified the potential impact that digital strategies could have on companies. However, if a company wants to introduce a digital strategy, the process of doing so will require careful change management (and project management) if the new strategy is to be implemented successfully.

As the ICAEW's Information Technology faculty has identified in its guide '*Digital transformation – the next steps*' there are a number of ways companies get digital transformation wrong (and accordingly could fail to implement a digital strategy successfully):

- failing to adapt to new technologies
- failing to identify changes in customer behaviour
- failing to understand the significance of paradigm shifts in the marketplaces
- poor planning
- lack of employee and stakeholder engagement
- failing to anticipate the true costs of change

Alternatively, as well as failing to identify changes, or adapting to new technologies, one reason why organisations may resist a change in strategy is fear of instability. An organisation may acknowledge that it wants to grow, but it might be holding back – essentially from a fear of the unknown.

Context example: Blockbuster

The IT faculty guide *Digital transformation – the next steps* includes the example of Blockbuster, the DVD rental company, to illustrate the dangers of failing to identify the need for digital transformation.

Blockbuster had a huge high-street presence and loyal customer base. It was a household name and placed in a prime position to take advantage of the emerging world of online digital.

However, the company repeatedly failed to innovate its business model and lost ground in the market not once, but twice. First, it lost ground to DVD postal services, and was uncompetitive with the large high-street rental overhead it carried. It then failed to respond to the early streaming services such as LoveFilm.

Finally, when Blockbuster had the opportunity to buy its way into this new market, with the acquisition of the emergent streaming company, Netflix, it also failed to understand the potential this would provide. Blockbuster did not properly assess the future for streaming. This lack of vision also meant Blockbuster failed to see the impact of the internet on online booking – the replacement of browsing in the high street with browsing in the comfort of your own home (just as, at the same time, successful pizza companies were moving to online ordering and home delivery).

Blockbuster's story is ultimately about complacency. There was no culture of innovation, rather a blindness to the digital transformation that was going on around it. As the CEO of Netflix Reed Hastings said, 'If Blockbuster had launched their own streaming service two years earlier, Netflix may never have happened'.

3.7.1 Implementing digital strategy

In the previous section, we looked at some of the potential barriers to implementing digital strategy. This section now looks at how those barriers could be overcome, and how organisations can start implementing the change process which will be necessary to introduce digital strategy.

Understand current position

A digital strategy doesn't exist for its own benefit. An organisation's digital strategy must support its overall corporate strategy, albeit with a 'technological' edge.

Therefore, before starting to develop a digital strategy, an organisation needs first to understand its current position.

- Assess ability/readiness to implement change

  Within this understanding of its current position, the organisation should also consider how ready it is to undertake a digital transformation, and therefore how successful any change is likely to be.

  As such, the organisation should review the ways it currently uses technology to support its business:

- How efficient is the organisation?
- How well does it engage its customers and other business partners?
- How well does it embrace new ways of working?
- How effective is it in terms of governance?

Have a vision of where you want your company to be

Having a vision of where you want to be is not the same as having a traditional business plan with milestones and targets. It is more about setting some high-level objectives that define the change you are trying to achieve within the business. This is about thinking strategically and providing a sense of direction.

Implementing a digital strategy will involve changing the way an organisation works, transforming its systems and processes, but it will be important that the detail of any transformation is framed by an overall vision of what the company wants to achieve.

Developing any new strategy inevitably exposes an organisation to new risks. Implementing a digital strategy is no different – for example, if your service goes down unexpectedly this could result in lost revenue and damage to the organisation's reputation. Therefore, at an early stage in the planning process it is important to consider whether the potential rewards justify the risk.

An organisation should not enter the digital space just for the sake of appearing 'more modern'. Creating a new way for customers to engage with an organisation is a major decision, and so should not be made hastily. As with any other business decision, it needs justifying in terms of the expected benefits it will deliver – for example, in terms of increased sales, improved profit margins, or improved customer service.

Look for ideas

Everybody that is involved with your business – including staff, customers and suppliers – will have a different perspective on what might improve your productivity, competitiveness, marketability or sales.

Make sure you are open to feedback whether this is through formal reviews or, more likely, through informal channels such as social media.

Understanding customer behaviour, and the products and services customers want, are also likely to be important in helping a company develop and implement a digital strategy. As such, a company's ability to use data and analytics effectively will increase the chances of success.

Build a framework for change

- **Methodology**

  Many companies, correctly, identify that customer experience will be crucial to a successful digital strategy. However, far fewer consider the processes, people and technology changes which will be required to provide that customer experience.

  However, these elements are equally important; for example, thinking about what platforms and technology a company will need to support its digital strategy, and to help it reach its target audience effectively.

  Remember, as we noted in Strategic choice, although technology plays an important part in digital strategy (what technologies to use, and where/how to use them), digital strategy is not simply IT strategy. Therefore it will also be important to understand the changes in capabilities and business processes necessary to support the strategy.

Equally, however, it is important to identify the underlying purpose of a strategy (eg, to improve customer experience) and use the technology to help achieve that, rather than focusing primarily on the technology and then designing a strategy to fit with the technology.

- **Change team**

  Change will not happen by itself. Companies can introduce new processes, technologies, procedures and rules, but unless people embrace them, a change initiative will not be successful.

  Make sure that only people who fundamentally believe in the change – even when there are problems – are involved in the process and empower them to be advocates for the new ideas, both inside and outside the organisation.

  Moreover, given the business functions affected by 'digital' – technology, customer services, marketing, brand management – there is not necessarily any single place for it to be located in an organisation's structure. Therefore an important issue an organisation needs to address will be who is the best person to lead their digital strategy – and whether it may actually be more appropriate to appoint someone from outside the organisation, if the members of the organisation's own management team don't have any relevant experience.

Think about culture change and communicate effectively

Having advocates for change is a start, but it is important to be aware that others may take longer to understand and accept new ways of doing things.

Good communication is imperative here – in terms of listening to, understanding and responding to concerns, and also in terms of communicating early successes that validate the purpose of the change, and the new strategy.

Implementing any organisational change is difficult, because of the different perspectives, motivations and attitudes of the people in the organisation. The 'soft' side of strategy implementation is often the hardest, but in order to give the strategy the best chance of succeeding, organisations need to consider their employees fully during each stage of the implementation process.

Digital transformations are also likely to require employees to work in new ways and abandon the comfort zone of their existing processes. Inevitably (and understandably) people will initially resist change. They may well feel threatened by the proposed changes; which could particularly be the case when older employees are faced with new and emerging technologies. Staff may, sometimes justifiably, fear being replaced by younger, more technically proficient employees, by software applications, or by machines.

Involving people in the digital transformation initiative will not only help to allay such fears, but could also improve the desired outcome by eliciting new ideas and encouraging buy-in.

It is also likely that training needs will be identified through discussions with staff, and these should be used to create a training schedule – covering, for example, new technologies, new systems and processes, and new policies.

Anticipate costs

Implementing a digital strategy is likely to be a major undertaking for an organisation, and therefore the organisation should prepare a dedicated budget, to fund the changes required to implement the new strategy successfully.

It should be clear that the cost of a digital transformation project will be significantly greater than the cost of simply procuring and installing the technology. For example, moving to a digital strategy may require new staff to be recruited (and/or trained) as well as restructuring workspaces, and redesigning organisational processes.

In addition, the project may also require large amounts of staff time, including planning, development and testing.

Measure success

As with any project, it is important to understand whether the new strategy is achieving the desired benefits once it is implemented.

However, in order to measure performance, an organisation necessarily has to establish a set of parameters at the outset by which success can be measured. These parameters should be directly linked to the vision and objectives for the strategy; for example, increased sales; customer recruitment/retention; and customer satisfaction.

3.7.2 Managing change – Kotter's eight step model

Although software development and IT implementation will be major aspects of implementing a digital strategy, as we noted in Strategic choice, digital strategies are not purely IT strategies.

Therefore, implementing a digital strategy successfully will require an organisation to manage the business change aspects as well as the IT change.

Kotter's eight-step change model provides a useful general guide for businesses managing change, and so could be used to help implement a digital strategy as with any other projects or strategies.

(a) Establish a sense of urgency – Discuss the current competitive position and look at potential future scenarios. Increase the 'felt need for change' (in other words, promote the driving forces for change).

(b) Form a powerful guiding coalition – Assemble a powerful group of people who can work well together to promote the change.

(c) Create a vision – Build a vision to guide the change effort, together with strategies for achieving it.

(d) Communicate the vision – The vision, and accompanying strategies and new behaviours, need to be communicated. Kotter stresses that effective communication is crucial in change management.

(e) Empower others to act on the vision – This includes getting rid of obstacles to change such as unhelpful structures or systems. People need to be allowed to experiment.

(f) Plan for and create short-term wins – Look for and advertise short-term visible improvements because these will help sustain the driving forces for change. Kotter suggests that these short- term wins should be planned into the change programme, and people should be publicly rewarded for making improvements.

(g) Consolidate improvements and produce still more change – Promote and reward those who are able to further advance and work towards the vision. Maintain the energy behind the change process by introducing new projects, resource and change agents.

(h) Institutionalise new approaches – Ensure that everyone understands that the new behaviours and systems will lead to corporate success.

Kotter's model highlights two key issues – the importance of having a 'felt need' for change in an organisation, and importance of communication throughout the change process.

However, there is a danger that Kotter's approach will create an early burst of energy at the start of a change programme followed by a sequence of routine processes. Steps 6, 7 and 8 – 'plan', 'consolidate', 'institutionalise' – seem to suggest a straightforward process which can be embedded into an organisation. But, in practice, the challenges and excitement of the early stages of a change management project need to be maintained throughout.

4 Cost reduction, supply chain management and outsourcing

Section overview

- Cost reduction has become increasingly important in an increasingly competitive world. In order to remain competitive, companies have had to keep prices low and the only other way to influence the bottom line is to squeeze costs as far as possible.
- There are numerous cost reduction programmes that a company can use and various ways in which they can be implemented. It is a matter of what is most suitable for the company, given its other objectives.
- An important question for organisations is which business processes and functions to retain in- house, and which to outsource.
- Another key element of an organisation's competitive success is ensuring that it can provide its customers with the products they want. For many organisations, the supply chain and supply chain management are likely to be crucial in this respect.
- Operations management is concerned with the transformation of 'inputs' into 'outputs' that meet the needs of the customer. It is characterised by the four Vs of volume, variety, variation in demand, and visibility.
- Capacity planning and some of the modern IT/IS applications supporting them are reviewed.
- Quality assurance and total quality management (TQM) are essential components of many modern manufacturing approaches.

4.1 Introduction

Cost reduction has become a key battle-cry in the 21st century. As prices are slashed in a bid to remain competitive, companies have to find other ways of boosting profits. The only other way to affect the bottom line is to squeeze costs as far as possible and, hopefully, more effectively than competitors.

One of the most quantifiable means of reducing costs is to tackle fixed costs. Fixed costs are those costs that cannot be avoided, regardless of activity levels – if you can find a way of getting rid of some of the sources of fixed costs permanently, then you are on the way to a successful cost reduction programme.

The best way to reduce costs is to develop a culture within the organisation whereby everyone thinks strategically about cost reduction. How do you reduce costs? In the simplest terms, by avoiding them as much as possible. Of course that is easier said than done but, if employees can be educated to actively seek ways to reduce costs, then this will be a move in the right direction.

Context example: IKEA

The chief executive of the IKEA furniture chain famously travels economy class on all flights, whether long or short haul, thus giving lower grades of director and manager no choice but to follow suit. On a trip to the US, the chief executive reportedly cut out a voucher for cut-price car hire in an in-flight magazine and handed it to his management colleague who was travelling with him. The colleague was expected to present the voucher to the car hire desk at their destination airport to obtain the discount. This approach to cost reduction by the chief executive reinforces IKEA's market positioning strategy as a low-cost, no-frills store.

4.2 Cost reduction techniques

As with all business decisions, there are right ways and wrong ways to approach cost reduction. The right techniques will result in greater efficiency of company spending; the wrong ones could lead to costs being cut that are in fact necessary for the maintenance of quality and company value. There is often a fine line between necessary costs and unnecessary ones but taking a systematic approach to cost reduction can help managers stay on the right side of that line.

Effective cost reduction techniques start with establishing what the programme is trying to achieve. If a company does not know **why** it is cutting costs, then it will have no idea **where** to cut costs.

Companies try to reduce costs for many reasons, such as to allow the price of a product or service to be cut without affecting margins, to eliminate unnecessary spending and to create additional cash reserves. Ultimately, the aim is to maximise shareholders' wealth, therefore it is important that the correct costs are targeted for reduction.

There are numerous ways in which companies can institute plans to reduce costs, including across the board reductions, prioritised reductions and departmental reductions. Across the board reductions could include the implementation of a new travel policy whereby all staff must travel economy class (as we have seen in the case of IKEA) while prioritised reductions may include a strategy to reduce emissions in order to avoid pollution tax.

Whatever techniques are used, if they are the right ones they can teach a company to be more economical while maintaining its levels of service and quality. By forcing companies to regularly review spending at all levels, cost reduction techniques allow companies to become more streamlined.

4.3 Supply chain management

Definition

Supply chain management: 'The planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes co- ordination and collaboration with channel partners, which can be suppliers, intermediaries,

third-party service providers and customers.' (*The Council of Supply Chain Management Professionals*)

A key element of the above definition is its emphasis on the inter-organisational element of supply chain management. Effective supply chain management focuses on interactions and collaborations with suppliers and customers to ensure that the end customer's requirements are satisfied adequately. All activities in the supply chain should be undertaken with the customer's needs (or requirements) in mind; and, to this end, all supply chains ultimately exist to ensure that a customer's needs are satisfied.

4.3.1 Supply chain management and competitive advantage

Supply chain activities – procurement, inventory management, production, warehousing, transportation, customer service, order management – have all been part of business operations since business began. However, it is only far more recently that companies have started to focus on logistics and supply chain management as a potential source of competitive advantage.

In Strategic analysis we discussed the idea of capabilities and dynamic capabilities. Here, we could argue that supply chain management can now be seen as a capability for an organisation. For example, 7-Eleven Japan is a company that has used excellent supply chain design, planning and operation to drive growth and profitability. 7-Eleven has a very responsive replenishment system which, coupled with an excellent information system, ensures that products are available at each of its convenience stores to match customer needs. The responsiveness of 7-Eleven's system allows it to change the merchandising mix at each store by time of day, to match precisely with customer demand.

Similarly, Amazon is consistently rated as one of the top e-commerce companies in the world. However, critical to Amazon's ongoing business success is maintaining the customer's trust that their orders will be delivered on time and with no errors. Amazon's supply chain and its warehouses are crucial to its performance in this respect.

In their text, *Supply Chain Management*, Chopra and Meindl highlight the importance of the supply chain for organisations when they write: 'Supply chain design, planning, and operation decisions play a significant role in the success or failure of a firm. To stay competitive, supply chains must adapt to changing technology and customer expectations'.

For example, in the 1990s, stores such as Borders and HMV dominated the sales of books and music by implementing a superstore concept. Compared to small independent local retailers, they were able to offer a much greater range of titles to customers, and at a lower cost by aggregating operations in large stores. This allowed the large retailers to achieve higher inventory turns than local retailers, and at higher operating margins. However, the large retailers' business model was itself under attack with the growth of online markets – in particular Amazon, which offered greater variety than Borders and HMV, and was able to sell at lower cost by selling online and stocking its inventories in a few distribution centres. The inability of Borders, in particular, to adapt its supply chain to compete with Amazon led to a rapid decline. (Borders (UK) went into administration in 2009, and the Borders group as a whole filed for bankruptcy in 2011.)

The appropriate design of a supply chain in any given context depends on both the customer's needs and market conditions. We can illustrate this with reference to Dell, noting that it has two different supply chain models: one for customers who want customised personal computers (PCs), and the other for customers who want standardised PCs.

Context example: Dell

Between 1993 and 2006, Dell Computers enjoyed a period of tremendous growth in both revenues and profits. Dell's success was based on two key supply chain features which supported rapid, low- cost customisation:

(a) Selling directly to the end customer, bypassing distributors and retailers.

(b) Centralising manufacturing and inventories in a few locations, where final assembly was postponed until the customer order arrived. As a result, Dell was able to provide a large variety of PC configurations while keeping low levels of component inventories.

Although Dell had been successful at the beginning of the 21st century, changes in the marketplace presented some new challenges. Dell's supply chain had been designed for making highly customised PCs. However, from around 2007, the market demand shifted to lower levels of customisation. Customers were now satisfied with only a few models.

Dell's business model at the beginning of the century was also based on selling customised PCs direct to customers. However, since 2007 it has also sold standardised PCs through Walmart in the US, and through the GOME Group, China's largest electronics retailer. Both Walmart and the GOME Group hold Dell machines as inventory. This supply chain contains an extra stage compared to the direct sales model – the retailer.

Dell has also now introduced a 'Smart Selection' programme, where (based on its customer insights) it pre-builds the most popular PC configurations so that they are ready to ship within 24 hours of a customer order. (This compares to a shipment time of between 7–14 days when customised PCs were made for customers after they placed their order.)

However, pre-building PCs changes Dell's supply chain landscape, and means it needs increasing warehouse capacity. Under the previous 'configure to order' model, Dell needed little inventory space. But because the 'Smart Selection' system relies on systems being in stock and ready to ship when they are ordered, the amount of inventory space required is higher.

Unfortunately, supply chains which are not designed appropriately can precipitate the failure of a business. The demise of the online grocery retailer Webvan (which was launched in 1999) illustrates this.

Webvan designed a supply chain with large warehouses based in several major cities in the US. The plan was that groceries should then be delivered to customers' homes from these warehouses.

However, the design of this supply chain meant that Webvan couldn't compete with traditional supermarket supply chains in terms of cost. The distribution networks used by traditional supermarket companies mean they use fully-loaded lorries to bring products to a supermarket store close to the consumer, resulting in relatively low transportation costs.

Although Webvan turned its inventory slightly faster than the supermarkets, it incurred much higher transportation costs for its home delivery system. Moreover, Webvan offered free delivery on all orders, regardless of the customer's location. As a result, it was estimated that the company was losing up to $130 on every order, and by July 2001, the company was declared insolvent after losing US$1.2 billion.

Ultimately, the objective of the supply chain is to maximise the overall value generated, or the supply chain profitability – the difference between the revenue generated from the customer and the overall cost across the supply chain. Therefore, when analysing supply chain decisions, it is vital to consider what impact they will have on the profitability of the supply chain.

Equally, however, it is important to remember that supply chain profitability has to be shared across all supply chain stages and intermediaries. Therefore, the more intermediaries there are in a supply chain, the more people the profit has to be shared between.

In this context, the opportunities for disintermediation provided through IT and e-business can be very important. For example, if a customer can book the flights and accommodation for their holidaydirectly through the relevant airline and hotel websites, the airline and the hotel no longer have to pay any commission to a travel agent for arranging the holiday for the customer.

4.3.2 Hierarchy of supply chain decisions

In Strategic analysis, we noted that there is a hierarchy of decision making and control: at strategic; business-unit (or tactical); and operational levels.

A similar hierarchy can be applied to supply chain management decisions, depending on the frequency of the decision and the time frame that it relates to. Chopra and Meindl identify the three significant elements of supply chain management decisions as design, planning and operations.

Supply chain design decisions include:

- whether to perform a supply chain function in-house or to outsource it
- the location and capacities of production and warehousing facilities
- the products to be manufactured or stored at different locations
- the modes of transport to be used between different nodes in the supply chain
- the type of information systems to be used (for example, to coordinate ordering and production within the supply chain)

Supply chain planning decisions – Planning decisions establish the parameters within which the supply chain will function for a specified period of time; often a year. Companies start the planning phase with a forecast of demand in different markets for the coming year (or the period being planned); and planning includes decisions regarding which markets will be supplied from which locations; the subcontracting of any manufacturing; inventory policies to be followed; and the timing and size of any marketing promotions (which will affect demand and supply across the chain).

Supply chain operation decisions – The time horizon for operational decisions is much shorter: often daily, or weekly. Operational decisions are driven by customer orders, and are often related to individual customer orders. Operational decisions could also be related to individual production facilities, warehouses or distributors.

4.3.3 'Push' vs 'Pull' models of supply chain processes

All the processes in a supply chain can be classified into one of two categories: 'pull' processes and 'push' processes.

Pull processes are carried out in response to a customer order (in other words, they operate in a 'build to order' context). Push processes are carried out in advance of a customer order, in anticipation of those orders based on a forecast. So they represent a 'make to stock' environment.

Crucially, push processes operate in a context of uncertainty, because customer demand is not known. By contrast, pull processes operate in an environment in which customer demand is known. However, they may still be constrained by inventory and capacity decisions which were made during the push phase.

The push model

In a supply chain based on the push model an organisation produces goods according to schedules based on historical sales patterns.

A push-based supply chain is slow to respond to changes in demand, which can result in overstocking, bottlenecks and delays, unacceptable service levels and product obsolescence. Where there are several links in the distribution chain, the system's inability to respond to variations in consumption leads to the establishment of buffer inventory at each stage of distribution.

Poor coordination can lead to large fluctuations in the levels of buffer inventory, even where actual consumption patterns vary only marginally. This kind of uncoordinated amplification of minor feedback signals is called the 'bull whip effect' (which we will look at in more detail in Information strategy of this Workbook).

Features of a push system

- forecasts of sales drive production and replenishment
- long-term forecasts
- inventory pushed to next channel level, often with the aid of trade promotions
- inability to meet changing demand patterns
- potential product obsolescence
- excessive inventory and low service levels
- bull whip effect

The pull model

Driven by e-commerce to empower clients, many companies are moving to a customer-driven **pull model**, where production and distribution are **demand driven**. The consumer requests the product and 'pulls' it through the delivery channel. There is an emphasis on the supply chain **delivering value to customers** who are actively involved in product and service specifications.

This new business model is less product-centric and more directly focused on the individual consumer. To succeed in the business environment, companies have recognised that there is an ongoing **shift in the balance of power** in the commerce model, from suppliers to customers.

Features of a pull system

- demand drives production and replenishment
- centralisation of demand information and of replenishment decision making
- reduced product obsolescence
- expanded ability to meet changing demand patterns
- lower inventories and higher service levels
- reduced bull whip effect

Push-based systems rely less on sophisticated IS support, since high inventory levels are used to cope with variations in customer demand. Pull-based systems, like just-in-time (JIT), need accurate and quick information on actual demand to move inventory and schedule production in the chain: therefore, they require integrated internal systems and linkages throughout the supply chain.

In reality, most supply chains will include a **combination of both push and pull** processes. The interface between push-based stages and pull-based stages is known as the push-pull boundary.

Dell's build to order supply chain can be seen as an example of this. Dell carries an inventory of standard components, and inventory levels of these components are determined by forecasting general demand ('push'). Final assembly then occurs in response to specific customer orders ('pull'). However, a key goal in supply chain management is identifying an appropriate 'push-pull' boundary such that the supply chain matches supply and demand effectively. For Dell, the 'push-pull' boundary would occur at the beginning of the assembly line, where standard components start being used to build a customised PC in response to a customer order.

Context example: Zara

As a chain of fashion stores, Zara operates in an industry in which customer demand is rapidly changing and fickle. However, Zara has been able to grow successfully by employing a strategy that combines affordable prices with being highly responsive to changing trends.

Across the apparel industry as a whole, 'design to sales' cycle times have traditionally averaged more than six months. However, Zara has achieved cycle times of four to six weeks. This speed allows Zara to introduce new designs every week and to change 75% of its merchandise display every three to four weeks. As a result, the clothes on display in Zara's shops match customer preferences much more closely than the clothes in competitors' shops do. Consequently, Zara sells most of its products at full price, rather than having to apply markdowns to clear old stock.

Zara manufactures its clothes using a combination of flexible and quick suppliers in Europe and low- cost suppliers in Asia. This model contrasts with the majority of clothing manufacturers who have moved most of their manufacturing to Asia. About 40% of the manufacturing capacity is owned by Zara's parent company (Inditex), with the remainder outsourced.

Zara sources products with highly uncertain demand from its European suppliers, whereas those with more predictable demand are sourced from Asian suppliers.

More than 40% of Zara's purchases of finished goods, and most of its in-house production, occur after a sales season starts. This compares with less than 20% production after the start of a sales season for a typical clothes retailer. This responsiveness, and the postponement of decisions until after seasonal trends are known, allows Zara to reduce inventories and to reduce the risk of error in forecasting demand.

In addition, Zara has invested heavily in information technology (IT) to ensure that the latest sales data are available to drive replenishment and production decisions.

4.3.4 Drivers of supply chain performance

The contrast between 'push' and 'pull' processes also identifies a key balancing act at the heart of supply chain management: that is, achieving the balance between responsiveness and efficiency which best supports a company's competitive strategy. For example, holding high levels of inventory should enable a company to be very responsive to changes in customer demand, but will it be efficient? The goal for a company in relation to supply chain performance is to ensure that it achieves the desired level of responsiveness (to customer demand) at the lowest possible cost.

Chopra and Meindl argue that in order to understand how a company can improve its supply chain performance in terms of responsiveness and efficiency, we first need to examine the drivers of supply chain performance in that company. These drivers, as categorised by Chopra and Meindl, are as follows:

(a) **Facilities** – The actual physical locations in the supply chain network where a product is produced or stored; in effect, property, plant and equipment. Decisions regarding the location, capacity, flexibility and role of different facilities can have a significant impact on performance.

(b) **Inventory** – All raw materials, work in progress and finished goods within a supply chain. Changing inventory policies can dramatically alter the supply chain's responsiveness and efficiency. As we noted above, a company can make itself responsive by stocking large amounts of inventory and satisfying customer demand from stock, but the high inventory levels reduce efficiency. Such a strategy could be particularly dangerous in the clothing industry, for example, where frequent changes in trend would lead to inventory losing value quickly.

(c) **Transportation** – Moving inventory from one point to another in the supply chain. The mode of transport used can have a large impact on responsiveness and efficiency. For example, an online retailer could use a specialist logistics company (such as FedEx) to deliver a product to a customer rather than using the standard postal service. Using a faster mode of transportation makes the supply chain more responsive, but also less efficient, given the relatively higher costs of using the logistics company compared to the traditional postal service.

(d) **Information** – Consists of data and analysis about facilities, inventory, transportation, costs, prices and customers throughout the supply chain. Information is potentially the most important driver of all in the supply chain because it affects each of the other drivers. For example, Zara's supply chain system relies on accurate and timely information about trends in customer demand.

Crucially, information presents management with the opportunity to make supply chains more responsive **and** more efficient.

(e) **Sourcing** – Choosing who will carry out a particular supply chain activity, such as production, storage or transportation. One of the key choices that affects the responsiveness and efficiency of a supply chain is whether to outsource activities or to retain them in-house. Companies can improve efficiency by outsourcing production to contract manufacturers in foreign countries where labour and other operating costs are cheaper. However, responsiveness may suffer as a result of the long distances involved in shipping products to their markets. Similarly, as we saw in the case example earlier, Zara keeps responsive capacity in-house so that it can respond quickly to orders as they arrive.

Note, however, that sourcing does not only relate to production. Online retailers have outsourced next-day package delivery to specialist package carriers because it is too expensive to the retailers to develop next-day delivery capabilities on their own.

(f) **Pricing** – Deciding how much a company will charge for the goods and services it makes available through the supply chain. Pricing affects the behaviour of customers, thereby affecting supply chain performance. For example, if a logistics company varies the prices it charges based on the lead time provided by the customer, it is likely that customers who value efficiency will order early, but customers who value responsiveness will wait until just before they need a product transported to order it.

The table below summarises the differences between responsive and efficient supply chains:

	Responsive supply chains	**Efficient supply chains**
Primary goal	Respond quickly to changes in demand	Supply demand at the lowest cost
Product design strategy	Create modularity, so that product differentiation comes as late in the product process as possible	Maximise performance at a minimum product cost

Pricing strategy	Higher margins because price is not a prime consideration for customers	Lower margins, because price is a key driver for customers
Manufacturing strategy	Maintain capacity flexibility to buffer against uncertainty in demand and/or supply	Lower costs through high utilisation
Inventory strategy	Maintain buffer inventory to deal with uncertainty in demand and/ or supply	Minimise inventory to lower cost
Lead-time strategy	Reduce aggressively, even if the costs of doing so are significant	Reduce where possible, but not at the expense of increasing costs
Supplier strategy	Select suppliers based on speed, flexibility, reliability and quality	Select suppliers based on cost and quality

(Table adapted from Chopra, S. & Meindl, P. (2016) *Supply Chain Management*, 6th edition, Harlow: Pearson; p. 42)

Although we have identified the drivers of performance individually, it is also important to realise that they do not act independently of each other. Rather, they all interact to determine supply chain performance. Consequently, it is crucial that entities choose supply chain strategies in which the balance between responsiveness and efficiency fits with their overall competitive strategy. For example, a retailer whose strategy is based on a low-cost model for a wide variety of mass- consumption goods is likely to emphasise the elements of efficiency in its supply chain.

In addition, although we have highlighted the contrasts between responsiveness and efficiency in a supply chain, in reality entities will try to structure their supply chain in a way that maximises responsiveness **and** efficiency.

CHAPTER 3

4.3.5 The scope of supply chain management

The scope of decision making for supply chain professionals has expanded from trying to optimise performance within a division or business unit, then throughout the entity, and now across the entire supply chain – which includes trading partners both **upstream** (eg, raw material suppliers and wholesalers) and **downstream** (eg, distributors and customers). This reflects the goal of supply chain management, which is to maximise the total profitability of the supply chain.

The recognition of the importance of upstream and downstream processes reinforces the importance of **supplier relationship management** (the upstream interactions between an entity and its suppliers) and **customer relationship management** (the downstream interactions between an entity and its customers).

Chopra and Meindl summarise these different components of supply chain management as a table:

Supplier relationshipmanage-ment	Internal supply chainmanage-ment	Customer relationship management
• sourcing • negotiating contracts • buying • design collaboration • supply collaboration	• strategic planning • demand planning • supply planning • fulfilment • after-sales service (eg, setting inventory levels for spare parts)	• marketing • price • selling • call centre • order management

Supplier relationship management

Supplier resources and capabilities are likely to be a critical constraint of supply chain planning. Equally, however, effective collaboration with suppliers can have huge benefits across the supply chain. For example, once an agreement for supply has been established, the entity and the supplier can improve supply chain performance by collaborating on forecasts, production plans and inventory levels (supply collaboration).

There is perhaps even greater benefit to be gained from collaborating with suppliers on the design of products which have positive supply chain characteristics such as, for example, ease of manufacturing, and commonality across several end products (that is, where a single part can be used in a number of different end products, reducing the amount of different parts which need to be held in inventory).

Internal supply chain management

As its name suggests, internal supply chain management focuses on operations internal to an entity and includes all the processes that are involved in planning for, and fulfilling, a customer order. 'Supply planning' lies at the heart of this process. It uses the demand forecasts generated by demand planning, and the resources made available by strategic planning, to produce an optimal plan to meet this demand with the resources available.

Customer relationship management (CRM)

The goal of the CRM process within supply chain management is to generate customer demand and to facilitate the transmission and tracking of customer orders. Weaknesses in this process could lead to poor customer experiences because orders are not processed and executed effectively. However, weaknesses in CRM could also result in lost opportunities to gather information about customer demand, and the factors which influence customer demand.

Including the customer in the supply chain also identifies the role that customers can play in the value creation process. Many retailers now use self-service checkouts, while Ikea's customers create their own value by assembling their furniture at home. However, a more significant way in which customers can create value is through being involved in the product design process ('co-creation'). For example, consumer product manufacturers, including Lego and Nike, have now established online design studios where customers can customise their own products to meet their specific needs.

4.3.6 Information and supply chain management

So far in this section we have focused mainly on the supply chain as a mechanism for providing goods and services to a customer. However, as Chopra and Meindl remind us, the flow of information through the supply chain is equally important to its efficient operation: 'A supply chain is dynamic and involves the constant flow of **information, product and funds** between different stages.'

The following two short examples illustrate this:

Context example: Information, product and funds flows within the supply chain

(a) Consider first the example of a customer walking into a supermarket to purchase detergent.

The supply chain begins with the customer and their need for detergent. The next stage of this supply chain is the supermarket store that the customer visits in order to buy the detergent.

The supermarket stocks its shelves using inventory which may have been supplied from one of the supermarket's own warehouses, or else by a distributor. In turn, the distributor is stocked by the manufacturer of the detergent.

The manufacturing plant (where the detergent is produced) receives raw material from a variety of suppliers, who may themselves have been supplied by lower-tier suppliers. For example, the manufacturer receives packaging material from a plastic producer, who may in turn receive the raw materials it needs to manufacture the plastic packaging from other suppliers.

In this example, the supermarket provides the product, as well as pricing and availability information to the customer. The customer transfers funds to the supermarket. The supermarket store conveys point of sales data as well as replenishment orders to the warehouse (or the distributor). In turn, the warehouse (or the distributor) provides fresh stocks of the detergent to replenish the store, and the supermarket transfers funds to the distributor to pay for the inventory which has been replenished.

(b) When a customer purchases a computer online from Dell, the supply chain includes (among other elements): the customer, Dell's website, Dell's assembly plant, and all Dell's suppliers and their suppliers.

Dell's website provides the customer with information regarding pricing, product variety and product availability. Having made a product choice, the customer enters their order information, and pays for the product. The customer may later return to the website to check on the status of their order.

In turn, stages further up the supply chain use the customer information in order to fulfil the request; for example, by supplying the components necessary to assemble the computer.

Having good information helps an entity to use its supply chain assets more effectively and to coordinate supply chain flows in order to increase responsiveness and reduce costs. For example, 7-Eleven Japan uses information to improve product availability while decreasing inventories; and

airlines routinely use information to decide how many seats to offer at a discount price while leaving sufficient seats for business customers making reservations at the last minute who are willing to pay a higher price.

As Chopra and Meindl note, having 'the right information can help a supply chain better meet customer needs at lower cost. The appropriate investment in IT improves visibility of transactions and co-ordination of decisions across the supply chain'.

We will look at information strategy in more detail in Information strategy in this Workbook but it is worth noting here some of the ways IT can help managers share and analyse information in the supply chain:

(a) **Electronic data interchange (EDI)** – Enabling instantaneous, paperless purchase orders with suppliers.

(b) **Enterprise resource planning (ERP) systems** – Integrating an entity's systems and thereby helping managers coordinate production, resources, procurement, inventory, customer orders and sales.

(c) **Radio frequency identification (RFID)** – RFID tags attached to materials or inventory enable an entity to track the movement of inventory between locations more accurately, and to get an exact count of incoming items and items in storage.

(d) **Supply chain management (SCM) software** – Whereas ERP systems show an entity what is currently going on, SCM systems help a company decide what it should plan to do in the future.

(e) **Blockchain** – As we noted in Strategic analysis (with the example of Everledger) blockchain technology can also be used to improve transparency and integrity in the supply chain.

However, we must add one word of caution. While good information can clearly help an entity improve both responsiveness and efficiency, this does not automatically mean that simply having **more** information is always better. As more information is shared across a supply chain, the complexity and cost of the infrastructure required and the follow-up analysis increase. However, the marginal value provided by information may diminish as more and more information becomes available.

Hence, entities need to achieve a balance between providing sufficient information so that supply chain activities can be planned and controlled effectively, but without producing unnecessarily complex and detailed information.

4.3.7 Supplier selection

If an entity has decided to buy in a product or service (rather than to make it in-house), then vendor selection becomes a critical sourcing decision:

How many suppliers will the entity have for a particular activity? (If the entity uses only a small number of suppliers, they could have a high degree of bargaining power over the entity; but if too many are used, and the orders placed with each are small, there is little chance of economies of scale.)

How will it choose its suppliers? Managers need to consider the performance objectives which are most important. For example, the following could be key performance characteristics when evaluating potential suppliers:

- speed (or lead time)
- quality
- price
- flexibility
- reliability

In this respect, an entity should select suppliers with distinctive competences that are similar to its own. For example, a company selling high-volume, low-price products will want suppliers who are able to supply large quantities of low-price components.

The financial stability of potential suppliers is also important so, when evaluating suppliers, an entity should take up credit references, and examine potential suppliers' published accounts.

Supplier selection and assurance

Nonetheless, a key element of any outsourcing decision will be the outsourced partner's ability to deliver contracted items to the standard required. In other words, an entity needs assurance over the effective business operation of the outsource service provider.

The *Assurance Sourcebook* produced by the ICAEW Audit and Assurance Faculty includes the following mini-scenario which could be relevant in such a situation:

The outsource partner's operating criteria are all explicit in its documented systems for operating the administrative processes on behalf of clients. The company wants to be able to demonstrate the continuing effectiveness of its systems to existing and potential customers as an incentive to maintain their outsource contracts. So the outsource partner commissioned an assurance engagement to evaluate the effectiveness of its systems.

Importantly, also, an entity needs to ensure that it has a **service level agreement** in place with its outsource partners. In order to measure whether the partners are delivering the quantity and quality of goods and services required of them, these requirements first have to be specified. This can be done through a service level agreement.

Assurance and the supply chain

The supply chain of an organisation more generally can also benefit from assurance. As the *Assurance Sourcebook* notes, service organisations seek to assure their customers that they have adopted, and implemented, appropriate processes and controls over the operations outsourced to them; and major customers are likely to seek this assurance. Suppliers to organisations are increasingly asked to provide assurance over their ability to service customers' needs within a framework of control which includes a wide range of areas such as ethical trade, working conditions and human rights, anti-bribery and financial health.

Equally, organisations seek assurance that their distribution partners are acting in line with contractual agreements and broader expectations. (For example, are customer orders being delivered in line with agreed timetables, and in good condition?)

We discussed assurance reports on third-party operations in Strategic choice of this Workbook, and the types of appropriate subject matter we mentioned there – systems and processes; compliance with contracts or agreed standards; financial or non-financial performance and conditions; physical characteristics; and behaviour – could equally be appropriate subject matter in relation to assurance

over the supply chain. (For example, in the food industry, companies need to know that their raw materials, such as fruit or cereals, haven't been over-loaded with pesticides.)

4.3.8 Sustainability and the supply chain

Organisations should ensure that the other members of the supply chain adhere to their own ethical, environmental, social and governance standards, otherwise their own performance will be undermined. Their reputations can suffer if their suppliers engage in poor ESG practices. Whilst companies do not control their suppliers, they can choose who they transact with. Companies increasingly understand they have a responsibility not to engage with suppliers who routinely demonstrate unethical or unsustainable business practices.

Examples of unethical transactions in the supply chain include:

- mineral and mining companies that exploit workers and damage the environment.
- supply chain that results in excessive CO_2 emissions, deforestation, pollution of air, earth and water supplies.
- hazardous health and safety practices and use of child workers.
- making payments into the supply chain which are used to fund terrorism and money laundering.
- bribery payments in order to gain access or favourable terms within the international supply chain.
- transactions with international companies who are subject to sanctions and other legally binding trade restrictions.

Companies need good governance, compliance and risk management procedures to vet out potentially unethical transactions with suppliers. This is particularly important for companies with an international supply chain, who may never meet supply directors and managers in person, so it is difficult to confirm the application of acceptable ethical standards and practices by the supplier.

Companies should perform supplier due diligence prior to commencing supply chain transaction. These checks will include:

- **Environment:** does the supplier meet a specific level of sustainability in terms of environment practices (eg, use of recycled materials, energy consumption and emissions)?
- **Social:** does the supplier have acceptable social policies (eg, anti-discrimination and diversity employment policies) and acceptable working and health and safety practices?
- **Governance:** does the supplier have effective governance arrangements in place to assure that employees and managers are not engaging in unethical practices (eg, an established code of ethics)?

Technology is increasingly providing low-compliance cost solutions to the time consuming and costly checks which will improve the application of ethics with a supply chain.

- Software which confirms identify against a verified database. This means some identification checks are quickly confirmed online, rather confirm identify manually for each significant player in the supply.
- Software which verifies company documentation online and provides forensic-level forgery detection. These systems use artificial intelligence and machine learning to analyse the validity of several levels of a transaction, from positively identifying and screening all of the companies identified in the supply change and analysing the credibility of the purpose of the transactions themselves.
- Automated screening services work via live databases to provide real-time interrogation of sanctions, politically exposed persons and adverse media. The company claims more efficient screening by allowing users to configure analysis to only those criteria relevant to their risk profile.

Context example: Sedex

Sedex, the 'Supplier Ethical Data Exchange', is a not-for-profit membership organisation dedicated to promoting improvements in responsible and ethical business practices in global supply chains.

Sedex's core product is a secure, online database which allows members to store, share and report on information in four key areas:

- labour standards
- health and safety
- the environment
- business ethics

Buyers can use Sedex to collect and analyse information on the ethical and responsible business practices of all the suppliers in their supply chain.

Equally, suppliers can use Sedex as an efficient and cost-effective way of sharing ethical information with multiple customers. By allowing suppliers to share the same data with multiple customers, Sedex helps to reduce the need for multiple audits and allows both suppliers and buyers to focus on improving the performance of the supply chain.

However, as well as working with buyers and suppliers, Sedex works with auditors around the world to champion best practice in auditing social, environmental and ethical aspects of supply chains. In working with Sedex, auditors can become part of a collaborative platform for managing and sharing ethical supply-chain data and developing best practice. www.sedexglobal.com

4.4 Strategic procurement

The traditional supply chain model envisages each firm as a separate entity reliant on orders from the downstream firm, commencing with the ultimate customer, to initiate activity. The disadvantages of this are as follows:

- It slows down fulfilment of customer orders and so puts the chain at a competitive disadvantage.
- It introduces the possibility of communication errors, delaying fulfilment and/or leading to wrong specification products being supplied.
- The need for all firms in the chain to hold inventories on a 'just in case' basis increases inventory costs and working capital requirements.
- The document and payment flows required between the stages in the chain increase transaction costs.

Strategic procurement is the development of a true **partnership** between a company and a supplier of strategic value. The arrangement is usually long term, single-source in nature and addresses not only the buying of parts, products or services, but also product design and supplier capacity.

This recognises that increasingly, organisations are realising the need for, and benefits of, establishing **close links** with companies in the supply chain. This has led to the **integrated supply chain** model and the concept that it is **whole supply chains** which compete and not just individual firms.

In an integrated supply chain, the responsibility for fulfilling the order from the ultimate customer is shared between all the stages in the chain, and the firms overlap their operations by having integrated activities as business partners. This is consistent with the idea of a value system and the concept of supply chain networks which we have already discussed in Chapters Strategic analysis and Strategic choice.

4.5 Suppliers and e-procurement

E-procurement involves using technology to conduct business to business purchasing over theinternet.

There are huge savings to be had, especially for large corporate organisations with vast levels of procurement. Siemens believes that, since it embarked on its fully integrated e-procurement system,this purchasing strategy saved $15 million from material costs and $10 million from process costs in one year alone, close to a 1,000% increase in savings from the previous year and only the second year into implementation.

4.5.1 Advantages of e-procurement for the buyer

- facilitates cost savings
- easier to compare prices
- faster purchase cycle
- reductions in inventory
- controls indirect goods and services
- reduces off-contract buying
- data-rich management information to help reduce costs and predict future trends
- online catalogues
- high accessibility
- improved service levels
- controlled costs by imposing limits on levels of expenditure

4.5.2 E-procurement from a supplier's perspective

Traditionally the business of supplying goods has been about branding, marketing, business relationships, and so on. In the expanding e-procurement world, the dynamics of supplying are changing and, unlike the expectations of companies implementing e-procurement systems for costsavings, suppliers are expecting to feel profit erosions due to the e-procurement mechanism.

Nevertheless, there are obvious advantages to suppliers:

- faster order acquisition
- immediate payment systems
- lower operating costs
- non-ambiguous ordering
- data-rich management information
- 'lock-in' of buyers to the market
- automated manufacturing demands

4.6 Efficient consumer response

Efficient supply chain management is likely to be particularly important in the context of fast-moving consumer goods industries.

The concept of efficient consumer response (ECR) highlights the need to focus on customers, and suggests that sustained business success will stem from providing consumers with products and services that consistently meet or surpass their demands and expectations. In turn, ECR also suggests that the greatest consumer value can be offered only when organisations work together – both internally (for example, sales and marketing functions working with production and distribution functions) and externally (with their trading partners) to overcome barriers to efficiency and effectiveness.

ECR seeks to enhance the value delivered to the consumers through identifying possible improvements to both demand and supply processes. In turn, these should help to improve profitability through a combination of increased revenues and reduced waste (costs).

Improvements which can **increase revenues**: Effective promotions, better mix of products, fresher products, increased availability of products in store.

Improvements which **can reduce waste**: Reducing inventory, reducing inefficient use of space, reducing product failures.

4.7 Business process re-engineering

Process efficiency has become increasingly important in modern business, as increased competition has forced organisations to ask questions such as: 'How should work be designed?', 'Who should do it?' and 'Where should they do it?'

Such questions indicate that process improvement and business process re-engineering (BPR) can play an important part in an organisation's strategy for sustained competitive advantage. However, the link with achieving competitive advantage means that any BPR projects should not be carried out as standalone exercises but in the context of the organisation's overall strategic position and business strategy.

In particular, it is important to identify the organisation's objectives, goals and critical success factors, in order to establish which processes link directly to these. It follows that improvements in these key processes are likely to lead to improvements in the organisation's strategic performance, and therefore suggests that these processes should be the ones which the organisation looks to improve in a BPR exercise.

Business process re-engineering (BPR) involves focusing attention inwards to consider how business processes can be redesigned or re-engineered to improve efficiency. It **can** lead to fundamental changes in the way an organisation functions. Properly implemented BPR may help an organisation to reduce costs, improve customer service, cut down on the complexity of the business and improve internal communication.

(a) At best, it may bring about new insights into the objectives of the organisation and how best to achieve them.

(b) At worst, BPR is simply a synonym for squeezing costs (usually through redundancies). Many organisations have taken it too far and become so 'lean' that they cannot respond when demand begins to rise.

The main writing on the subject is Hammer and Champy's *Reengineering the Corporation* (1993), from which the following definition is taken:

Definition

Business process re-engineering (BPR): The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed.

The key words here are fundamental, radical, dramatic and process.

(a) **Fundamental** – Re-engineering requires business people to ask fundamental questions about their businesses and how they operate: Why do people do what they do? Why do they do it in the way they do? Asking these fundamental questions forces companies to look at the implicit rules and assumptions that underlie the way they conduct their business, and often highlight that those rules are erroneous or have become obsolete. Re-engineering begins with no assumptions, and no looking back to what has always been done in the past.

(b) **Radical** redesign means getting to the root cause of things; 'not making superficial changes, or, fiddling with what is already in place, but throwing away the old' (Hammer & Champy). Radical redesign is about business **reinvention** – not simply modifying or improving the existing way in which things are done.

(c) **Dramatic** means that BPR should achieve 'quantum leaps in performance', not just marginal, or incremental improvements.

(d) **Process**. The reference to 'process' identifies that businesses are made up of a series of activities that together create value for a customer. Hammer highlights that in the late 20th century companies were typically structured around tasks or functions. However, the problems that companies were facing could not be solved by task improvement. The problems were process problems, and solving them required people to look at companies in terms of processes rather than functions.

(e) This shift to a process-centred approach also has fundamental implications for systems and management throughout an organisation: the kinds of work people do, the skills they need, the ways in which their performance is measured and rewarded, and the roles managers play.

A process is a set of logically related activities that takes one or more kinds of input and creates a specified output.

For example, order fulfilment is a process that takes an order as its input and results in the delivery of the ordered goods. Part of this process is the manufacture of the goods, but under BPR the aim of manufacturing is not merely to make the goods. Manufacturing should aim to deliver the goods that were ordered, and any aspect of the manufacturing process that hinders this aim should be re- engineered. The first question to ask might be, 'Do they need to be manufactured at all?'

A re-engineered process has certain characteristics.

- Often several jobs are combined into one.
- Workers often make decisions.
- The steps in the process are performed in a logical order.
- Work is performed where it makes most sense.
- Checks and controls may be reduced, and quality 'built-in'.
- One manager provides a single point of contact.
- The advantages of centralised and decentralised operations are combined.

Context example: Car manufacturer

The following short example is based on a problem at a major car manufacturer.

A company employs 25 staff to perform the standard accounting task of matching goods received notes with orders and then with invoices. About 80% of their time is spent trying to find out why 20% of the set of three documents do not agree.

One way of improving the situation would have been to computerise the existing process to facilitate matching. This would have helped, but BPR went further: Why accept any incorrect orders at all?

What if all the orders are entered onto a computerised database? When goods arrive at the goods inwards department, they either agree to goods that have been ordered or they do not. It is as simple as that. Goods that agree to an order are accepted and paid for. Goods that are not agreed are sent back to the supplier. There are no files of unmatched items and time is not wasted trying to sort out these files.

4.8 Examples of BPR

Some organisations have redesigned their structures along the lines of business processes, adopting BPR to avoid all the coordination problems caused by reciprocal interdependence.

- A move from a traditional functional plant layout to a JIT cellular product layout is a simple example.
- Elimination of non-value adding activities. Consider a materials handling process, which incorporates scheduling production, storing materials, processing purchase orders, inspecting materials and paying suppliers.

This process could be re-engineered by sending the production schedule direct to nominated suppliers with whom contracts are set up to ensure that materials are delivered in accordance with the production schedule and that their quality is guaranteed (by supplier inspection before delivery).

Such re-engineering should result in the elimination or permanent reduction of the non-value added activities of storing, purchasing and inspection.

Interactive question 5: Business process re-engineering

AB Ltd was established over a century ago and manufactures water pumps of various kinds. Until recently it has been successful, but imports of higher-quality pumps at lower prices are now rapidly eroding its market share. The Managing Director feels helpless in the face of this onslaught from international competitors and is frantically searching for a solution to the problem. In his desperation, he consults a range of management journals and comes across what seems to be a wonder cure by the name of Business Process Re-engineering (BPR). According to the article, the use of BPR has already transformed the performance of a significant number of companies in the US which were mentioned in the article, and is now being widely adopted by European companies. Unfortunately, the remainder of the article, which purports to explain BPR, is full of management jargon and he is left with only a vague idea of how it works.

Requirements

4.1 Explain the nature of BPR and describe how it might be applied to a manufacturing company like AB Ltd.

4.2 Describe the major pitfalls for managers attempting to re-engineer their organisations.

See Answer at the end of this chapter.

4.9 Implications of BPR for accounting systems

Issue	Implication
Performance measurement	Performance measures must be built around processes, not departments. This may affect the design of responsibility centres.
Reporting	There is a need to identify where value is being added.
Activity	ABC might be used to model the business processes.
Structure	The complexity of the reporting system will depend on the organisational structure. Arguably, the reports should be designed around the process teams, if there are independent process teams.
Variances	New variances may have to be developed.

4.10 Which costs should be cut?

This depends on the type of business you are in, but the easiest way to cut costs is to focus firstly on those expenses that are common to all companies. Gas and electricity, postage, stationery and telephone charges are all obvious targets. The trick is to **encourage** all staff to participate, not **demand** it. For example, notices posted next to light switches asking staff to 'switch off after use' are likely to be more effective than a dictatorial memo demanding that staff should be more careful about using power.

If cutting the more obvious costs does not achieve the required effect, management will have to adopt a more innovative approach, focusing on individual departments' spending. While cutting such expenses as telephone charges and stationery can be fairly straightforward, dealing with departmental costs is more problematic. Not only do you have the issue that departments feel they are being victimised, but there is also the potential for seriously damaging the company's day to day operations and pursuit of objectives. If staffing levels are cut, for example, it will be more difficult to maintain product or service quality. Cutting inventory levels too far could result in the company being unable to fulfil delivery promises. That is why management must understand how different costs affect profitability and the extent to which each cost category can be reduced before the company's operations are adversely affected.

4.11 Implementing cost reduction programmes

As with choosing techniques, there is a right way and a wrong way to implement cost reduction programmes. Cost reduction is inevitably a sensitive area and the wrong approach can alienate staff, reduce motivation and have a detrimental effect on company harmony. A good cost reduction programme is as much about damage limitation as cutting costs.

Effective cost reduction programmes should result from thorough management planning, a detailed understanding of how company expenses can affect not just the bottom line but also the overall quality of the product or service, and a vision of where the company is heading. Cost reduction is not about reporting smaller numbers in the income statement – it should be the culmination of extensive planning, thought and participation by directors, management and employees. Directors should not automatically assume that the most obvious cuts are the right ones. An innovative approach is often more successful than the usual 'we have to cut costs by 10% across the board' requirement.

Cost reduction programmes, as mentioned above, are ultimately implemented to improve profitability without improving revenue figures. Any improvements in revenue will further enhance profits. Programmes should be integrated into the overall company strategy, not introduced on an ad hoc basis.

Context example: Kraft and Cadbury

Kraft acquired Cadbury in February 2010, and by July 2010 more than 100 senior Cadbury staff had left, including Cadbury's chairman, chief executive and chief finance officer, as well as the marketing director and chief strategy officer. A company spokesman commented that this amount of change was not unusual when two companies merged. Critics pointed out that none of the top jobs subsequent to the acquisition had gone to Cadbury staff.

Kraft also completed the controversial closure of Cadbury's Somerdale factory near Bristol, which had been planned before the acquisition, and moved production to Poland. In May 2010, Kraft announced it intended to cut £379 million from operational costs. These savings would be generated by changes to IT and back office operations, and process, manufacturing and supply chain improvements.

4.12 Potential problems with cost reduction programmes

While companies seek to reduce costs to remain competitive, taking the process too far can have adverse effects. Managers have to think about the extent to which cost reduction can be sustained before the business starts to suffer in other ways. Companies whose marketing strategies are based on low costs will probably get away with cost cutting for longer, but if you work in an organisation that has always promoted high-quality goods and services, it is unlikely that extreme cost reduction programmes will be viewed positively, either by customers or the financial markets. Regardless of how it is marketed, cost reduction is seen by outsiders as not only reducing expenditure, but reducing quality and service as well.

Entities need to bear in mind that while cost reduction may seem tempting in order to get ahead of competitors, it should only be undertaken to the extent that it adds value to the company. As soon as shareholders' wealth starts to suffer, the programme should be halted.

4.12.1 Cost cutting and business sustainability

The global economic slowdown after 2008 prompted companies to re-examine their operating models as they adjusted to capital becoming more scarce. In this context, many companies began to examine their cost structures in much greater detail.

However, it is important that companies consider the longer-term implications of cost cutting, and do not make indiscriminate cuts simply to reduce costs in the short term. In this respect, PwC consultants encourage firms to differentiate between 'good costs' (which are necessary for the current and future growth of a company) and 'bad costs' (which do not support growth or are not part of the core infrastructure of the business). The target of cost management and cost cutting programmes should be these 'bad costs'.

The danger for businesses (if they cut 'good costs' or stop investment in new projects and people during difficult times) is that there may be a longer-term price to pay in terms of customer loyalty, heightened risk and lower future profitability, as a result of short-term measures taken to cut costs.

In this respect, any decisions to cut costs need to be evaluated in the wider context of the longer- term sustainability of the business, rather than merely being short-term measures to boost profit.

A key element of business sustainability is that it may affect a business's ability to thrive in the long term. In this respect, before a business takes any decision to reduce costs in the short term, it also needs to consider what impact the decision will have on its customers, suppliers or staff in the longer term. For example, if measures to cut costs lead to reduction in the quality of a product, customers may stop buying that product. Therefore, the cuts will weaken the business's chances of being successful in the longer term.

However, this need to focus on the longer term can create problems for corporate decisionmakers and accountants. Corporate reporting and performance measurement is often biased towards the short term. The fact that companies report their results on a yearly basis, and may be under pressure from shareholders and market analysts to deliver results, means they may be forced into measures that boost profits in the short term, but which may create problems in the longer term and, as a result, could potentially threaten the sustainability of the business.

4.13 The use of outsourcing in business

We have already acknowledged the potential importance of outsourcing in our discussion of supply chain management earlier in this chapter.

Outsourcing can be defined as the use of external suppliers as a source of finished products, components or services. The use of outsourcing has often been driven by it being the most cost- effective way of providing a service, particularly for smaller organisations.

In addition, the supplier of the outsourced service can provide specialist expertise which is not available in-house or it would not be worth maintaining in-house.

Outsourcing should also have the major advantage of reducing the workload of the organisation's managers, thus freeing up more time to concentrate on core competences.

Business process outsourcing is a subset of outsourcing which involves the contracting out of specific business functions (processes) to an external service provider. For example, the payroll function could be outsourced to a specialist payroll bureau, IT support could be outsourced to an IT services company, and a number of organisations have outsourced (and moved offshore) their customer service centres.

Generally speaking, outsourcing is appropriate for peripheral activities: to attempt to outsource core competences, or activities which are strategically important, would be to invite the collapse of the organisation.

However, it can sometimes be difficult to identify with clarity just what an organisation's core competences are. Moreover, it is not too difficult to imagine an organisation whose core competence is, in fact, outsourcing. Certainly, the motor manufacturing industry seems to be moving in this direction.

A further advantage of outsourcing is that external suppliers may benefit from **economies of scale** and experience effects. Therefore, cost may be reduced by using services provided by external suppliers rather than trying to provide the equivalent services in-house.

Getting the best out of outsourcing depends on **successful relationship management** rather than the use of formal control systems.

4.14 Successful outsourcing

Successful outsourcing depends on three things:

(a) The ability to specify with precision what is to be supplied: this involves both educating suppliers about the strategic significance of their role and motivating them to high standards of performance

(b) The ability to measure what is actually supplied and thus establish the degree of conformity with specification

(c) The ability to make adjustments elsewhere if specification is not achieved

There are also practical considerations relating to outsourcing.

- It can save on costs by making use of supplier economies of scale.
- It can increase effectiveness where the supplier deploys higher levels of expertise.
- It can lead to loss of control, particularly over quality.
- It means giving up an area of threshold competence that may be difficult to reacquire.

Outsourcing of non-core activities is widely acknowledged as having the potential to achieve important cost savings. However, some organisations are wary of delegating control of business functions to outsiders because of the difficulty of assessing the cost effectiveness of what is purchased. Cost should be fairly clear, but the quality of what is purchased is extremely difficult to assess in advance. The adoption of quality standards may help to overcome this problem. By using such standards, businesses will have more confidence in the quality of the service being provided and suppliers will know what is expected of them.

Professional skills focus: Concluding, recommending and communicating

When recommending whether or not to outsource a core function, ensure that you have examined both the risks and benefits of outsourcing before reaching a conclusion. Combine your technical knowledge with scenario analysis and business acumen to assess the data provided, before recommending a well-reasoned conclusion.

4.15 The value chain, core competences and outsourcing

Core competences are the basis for the creation of value; activities from which the organisation does not derive significant value may be outsourced.

The purpose of value chain analysis is to understand how the company creates value. It is unlikely that any business has more than a handful of activities in which it outperforms its competitors. There is a clear link here with the idea of core competences: a core competence will enable the company to create value in a way that its competitors cannot imitate. These value activities are the basis of the company's unique offering.

There is a strong case for examining the possibilities of outsourcing non-core activities so that management can concentrate on what the company does best.

4.16 Outsourcing IT/IS services

This section looks at a specific example of outsourcing – namely IT/IS services – and the advantages and disadvantages of outsourcing such a key business function.

The arrangement varies according to the circumstances of both organisations.

	Outsourcing arrangement		
Feature	**Timeshare**	**Service**	**Facilities Management (FM)**
What is it?	Access to an external processing system on a time-used basis	Focus on specific function, eg, payroll	An outside agency manages the organisation's IS/IT facilities. The client retains equipment but all services provided by FM company
Management responsibility	Mostly retained	Some retained	Very little retained
Focus	Operational	A function	Strategic
Timescale	Short term	Medium term	Long term
Justification	Cost savings	More efficient	Access to expertise; better service; management can focus on core business activities

Managing such arrangements involves deciding **what** will be outsourced, choosing a supplier and the supplier **relationship**.

4.16.1 How to determine what will be outsourced

- What is the system's strategic importance? A third-party IT specialist cannot be expected to possess specific business knowledge.
- Functions with only limited interfaces are most easily outsourced, eg, payroll.
- Do we know enough about the system to manage the arrangement?
- Are our requirements likely to change?

The arrangement is incorporated in a contract sometimes referred to as the service level contract or service level agreement (SLA).

Element	**Comment**
Service level	Minimum levels of service with penalties for example: • response time to requests for help/information • system 'uptime' percentage • deadlines for performing relevant tasks
Exit route	Arrangements for an exit route, transfer to another supplier or move back in-house.

Element	Comment
Timescale	When does the contract expire? Is the timescale suitable for the organisation's needs or should it be renegotiated?
Software ownership	This covers software licensing, security and copyright (if new software is to be developed).
Dependencies	If related services are outsourced, the level of service quality agreed should group these services together.
Employment issues	If the organisation's IT staff are to move to the third party, employer responsibilities must be specified clearly.

Context example: DVLA

In 2015, the Driver and Vehicle Licensing Agency (DVLA) – the government agency responsible for maintaining driver and vehicle registrations – decided to end its long-term contract for outsourced IT and bring its IT capability back in house.

The DVLA's chief technology officer (CTO) had been concerned that the agency's ageing and expensive IT estate, which was hard to upgrade and divided between a number of separate suppliers, could damage its plans to go digital.

Commenting on the move, the CTO acknowledged that outsourcing contracts and adopting a managed service approach is widespread in government, but he said 'that deprives you of understanding your full, end-to-end supply chain and what's happening in your technology estate. It means you can't move forward with new technologies because you're constrained by the contract.'

As well as delivering cost savings, the DVLA's Chief Executive also believes insourcing will help to make the agency a more appealing place for people with digital skills to work.

The DVLA had a long history of outsourcing with IBM and Fujitsu, and, as its CEO pointed out, 'If your entire [IT] model is going to Fujitsu for your external resource… then it's not going to be hugely attractive to people to start building their skills and go to DVLA for a career in technology or digital.' By making technology core to the business however, people become more attracted and interested in working for you.

However, there are risks as well as benefits involved in bringing IT services back in house, as the CTO acknowledged when he said: 'On the upside, we have complete control. On the downside, we have no-one else to blame [if things go wrong].'

Based on: Foster, M. (2015) Taking it back in house, *Public Technology.net* [Online] Available from:https://www.publictechnology.net/articles/features/taking-it-back-house [Accessed 7 August 2018]

4.17 Considerations around outsourcing

In an effort to cut costs, many organisations are now outsourcing activities both near shore (such as Eastern Europe) and offshore (such as the Far East and India).

Improvements in technology and telecommunications and more willingness for managers to manage people they cannot see have fuelled this trend.

Before taking the decision to outsource overseas, a number of points should be considered:

- environmental (location, infrastructure, risk, cultural compatibility, time differences)
- labour (experience in relevant fields, language barriers, size of labour market)
- management (remote management)
- bad press associated with the perception of jobs leaving the home country

4.17.1 Outsourcing to Eastern Europe

The expansion of the EU eastwards is providing organisations in Western Europe with a range of outsourcing opportunities. The vast manufacturing facilities that had formerly been used to produce for the massive Soviet market, many of which have been re-equipped, provide the opportunity for

manufacturing to be outsourced. For example, car production in the Czech Republic, Hungary, Poland and Slovakia is among the highest in Europe (in terms of cars produced per capita) as a result of investment from companies such as Volkswagen, Toyota-Peugeot-Citroen (joint venture), Hyundai, Kia, Audi, Renault and Fiat.

At the moment, labour is relatively cheap in Eastern Europe, and it is closer than East Asia – an important consideration in today's rapidly moving environment. The fact that English is widely taught and the existence of a Westernised culture are added attractions.

Outsourcing to Eastern Europe is not limited to manufacturing, though. There has also been significant growth in bookkeeping and accounting, IT and HR service outsourcing. Many of the cities in Central and Eastern Europe offer highly educated, multilingual pools of talent – relatively close to their potential clients (in Western Europe).

Although labour costs are lower than in Western Europe (and cost remains a fundamental consideration in outsourcing decisions) outsourcing of services to Central and Eastern Europe has also been encouraged by the potential of the graduates there. And, by contrast to outsourcing destinations like India or the Philippines where English is the sole operating language, potential employees in Central and Eastern Europe speak a variety of languages, giving clients access to people who speak English, French, German and Russian as well as local languages.

However, some analysts believe that the growth of service outsourcing may be limited by the future availability of skilled workers in the countries which are now the destinations for the outsourcing – ironically due to the flow of workers from Eastern Europe to the West in search of work.

4.17.2 Outsourcing to India

Moving back-office functions 'offshore' began in earnest in the early 1990s when organisations such as American Express, British Airways, General Electric and Swiss air set up their own 'captive' outsourcing operations in India.

The low labour cost in India has always made the outsourcing option attractive. But not only is it cheap, it is highly skilled. India has one of the most developed education systems in the world. One- third of college graduates speak more than two languages fluently and, of the two million graduates per annum, 80% speak English. These language skills, along with improved telecoms capabilities, make it an ideal choice for call centres. GE, Accenture and IBM have all set up call centres in India.

The vast majority of service jobs being outsourced offshore are paper-based back office ones that can be digitalised and telecommunicated anywhere around the world, and routine telephone enquiries that can be bundled together into call centres.

However, more recently, some UK companies have begun bringing customer service jobs back to the UK in response to customer complaints about their dealings with offshore call centres.

Context example: EE and foreign call centres

In early 2016, the mobile phone group, EE, announced plans to create 600 customer service jobs in the UK. The announcement followed the arrival of a new CEO who had pledged a raft of measures to increase customer satisfaction with EE's services. The move will see EE abandon its foreign call centre operations in India, South Africa and the Philippines. The company has set itself a target of ensuring that, by the end of 2016, at least 80% of all customer service calls are answered by EE staff in the UK. EE hopes that bringing its call centres back to the UK will help to address the number of complaints it receives from customers about poor levels of service.

(Source: 'EE ditches foreign call centres – as new boss looks to create 600 jobs and put customers first' This is Money, 2016, www.thisismoney.co.uk)

4.17.3 Outsourcing and assurance reports

One of the consequences of outsourcing is that many entities are now using outside service organisations to carry out tasks which affect the entity's internal controls. However, because many of the functions that are outsourced (in particular, IT) are integral to an entity's business operations, the entity's management will want to ensure that control procedures at the service organisation complement those they employ in-house.

In addition, because many of the functions performed by service organisations (eg, payroll, and pensions administration) affect an entity's financial statements, the entity's auditors may seek information about the control procedures at the service organisation.

Accordingly, reporting accountants may be engaged by the service organisation to provide a report on specific control procedures undertaken by the service organisation, which can then be made available to the service organisation's customers and their accountants.

Guidance on the related assurance reports is given by ISAE 3402, *Assurance Reports on Controls at a Service Organisation*. ISAE 3402 only applies when the service organisation is responsible for, or otherwise able to make assertions about, the suitable **design** of the controls. This means that it does not apply where the assurance engagement is to:

(a) report only on whether controls at the service organisation operated as described; or

(b) report on controls at a service organisation other than those related to a service that is likely to be relevant to user entities' internal control, as it relates to financial reporting.

Objectives of the service auditor

ISAE 3402 states that the objectives of the service auditor are:

(a) To obtain reasonable assurance about whether, in all material respects, based on suitable criteria:

(1) The service organisation's description of its system fairly presents the system, as designed and implemented throughout the specified period, or as at a specified date.

(2) The controls, related to the control objectives stated in the service organisation's description of its system, were suitably designed throughout the specified period.

(3) Where included in the scope of the engagement, the controls operated effectively to provide reasonable assurance that the control objectives, stated in the service organisation's description of its system, were achieved throughout the period.

(b) To report on the matters in (a) above.

Requirements and procedures

ISAE 3402 requires the service auditor to carry out the following procedures:

- consider acceptance and continuance issues
- assess the suitability of the criteria used by the service organisation
- consider materiality with respect to the fair presentation of the description, the suitability of the design of controls and, in the case of a 'Type 2' report, the operating effectiveness of controls
- obtain an understanding of the service organisation's system
- obtain evidence regarding:
  - the service organisation's description of its system
  - whether controls implemented to achieve the control objectives are suitably designed
  - the operating effectiveness of controls (when providing a 'Type 2' report)
- determine whether, and to what extent, to use the work of the internal auditors (where there is an internal audit function)

Notes

1 A 'Type 1' report is a report on the description and design of controls at a service organisation.

2 A 'Type 2' report is a report on the description, design and operating effectiveness of controls at a service organisation.

4.17.4 Managing outsourced relationships

Ultimately, the success of outsourcing relationships depends not only on the performance of the third-party supplier, but also on the relationship between the 'user' organisation and its suppliers.

In a publication to promote its contract risk and assurance services, Grant Thornton summarises a number of aspects which organisations should consider when using third parties to deliver contracts. These could equally be useful in the context of a scenario in the SBM&L exam, if an organisation is considering outsourcing an activity or process, or if it has already outsourced an activity or process but is now concerned about the performance of its outsource partner.

Aspect of contract management	Elements to consider
Governance and oversight	• Is the contract being managed effectively? • Do you have appropriate oversight around your joint ventures?
Risk	• Do you have appropriate oversight of contract risks and their management? • Are supply chain risks understood and being managed? • Do you have assurance around technology risks in managing, delivering, reporting and billing the contract?

Aspect of contract management	Elements to consider
Relationships	• Does your business have the right level of engagement with your joint venture partners? • Are your contractors earning margins in line with those originally agreed in the contract? • Do governance arrangements drive the right level of engagement with your business partners?
Performance	• Are key performance indicators and related rewards structured appropriately to measure and enhance contract performance? • Is there an appropriate use of technology to drive efficiencies in managing and delivering the contract? • Are incentives aligned to drive efficiency and effective operational performance? • Is the contract delivering the benefits you expect?

(Source: Grant Thornton (2014) Contract risk and assurance – Delivering value from your key contracts and suppliers)Grant Thornton's document also highlights a number of questions which an organisation should consider when using third parties to deliver contracts:

Aspect of contract management	Aspects to consider
People	• Is there appropriate engagement between operational managers in the 'user' organisation and their contractual counterparts? • Do contractors' reports contain the right level of detail and reach the right people on a timely basis?
Pricing	• Have contractual rates been clearly defined? Is there clarity around the pricing model? • Are the contractual rates being correctly applied? • Is the 'user' organisation being charged for additional services outside the scope of the contract? • Is the user organisation overpaying its suppliers?
Cost control	• Do contractors maintain appropriate accounting records to provide transparency around costs incurred? • Do contract partners operate effective supply chain controls to deliver cost efficiencies? • Are cost forecasts accurate, with any overruns being reported on a timely basis?
Change	• Are high levels of contract variations leading to increases in costs, or problems in defining the scope of the services being provided? • Are procedures in place for managing any changes to the contract or the relationship between the 'user' and its third parties?

(Source: Grant Thornton (2014) Contract risk and assurance – Delivering value from your key contracts and suppliers)

4.18 Data security in the supply chain

Some of the key themes we have been exploring in this chapter – strategic alliances, supply chain management, outsourcing – all relate to situations where an organisation has to share information with other organisations; for example, suppliers or distributors in its supply network.

One of the aims of supply chain management is to ensure the effective flow of materials and information between organisations in the supply chain. The information being exchanged may include: engineering information, order quantities, prices, contractual terms, inventory levels, point- of-sale information, or real time demand.

In an article on the Forbes website, Kevin O'Marah notes that digitisation is the most important megatrend affecting contemporary supply chain strategy. Visibility to both demand and supply have evolved from a slow, clunky process of transmitting batch data to an almost incomprehensible flow of constant information.

However, as the amount of information being shared increases (for example through wireless enabled PDAs, or from RFID tags) the related problem arises of how to ensure that information flows remain secure (for example, in relation to access controls, or encryption of information being transmitted).

A key factor in supply chain management is **business trust** – for example, where companies share design data, trade secrets or market information with suppliers and contract manufacturers.

Companies need to be able to rely on the fact that confidential information shared with suppliers remains confidential. In relation to this, Kevin O'Marah suggests that one possible approach companies could adopt is the use of supply chain segmentation strategies. This would enable companies to develop deep, trusting relations with certain suppliers, while maintaining more arms- length links with others.

4.18.1 The importance of cybersecurity

The activities of most businesses today are underpinned by a digital infrastructure, which therefore means cybersecurity is increasingly important for them in relation to keeping their goods and customers safe, and for preventing confidential information being distributed to people who should not receive it.

However, as the report *Audit insights: cybersecurity* (2016) by ICAEW's IT faculty highlights, the nature of cyber-risks makes them particularly hard to manage, because:

- They are multi-faceted in nature and require a variety of different measures across the entire organisation to manage them effectively.
- The impact of failures cannot necessarily be isolated or contained within single systems, networks, or organisations, creating potential systemic risks.
- Integrated and connected supply chains mean that businesses are not in direct control of many areas of risk and are therefore reliant on the control delivered by others.

We will consider cybersecurity more generally in Information strategy of this Workbook, but the third of these points highlights the particular importance of considering cybersecurity in the context of supply chain decisions.

4.18.2 Cybersecurity and supplier selection

Cybersecurity is often perceived in terms of security devices like firewalls, and cybersecurity in the supply chain typically focuses on security requirements for IT systems, software and networks, in response to threats such as malware, ransomware or data theft.

Breaches of cybersecurity clearly present a risk to a supply chain if hackers can target vulnerable IT systems and then steal sensitive data around new technologies, R&D plans, or other trade secrets. Equally, hackers could steal customers' details; or they could disrupt a company's IT systems, for example, through a denial of service attack.

However, hacking need not be confined to computer breaches, but companies could also be vulnerable to malware (or other risks) embedded in components that make up physical assets (for example, laptops, or telecoms equipment). The implication is that these components could either be used to steal valuable information or that they could be manipulated or corrupted.

An important way of reducing the cyber threats from the supply chain is through the due diligence companies carry out on suppliers before awarding contracts to them.

We have already mentioned (in Section 4.3) that organisations seek assurance over the processes and controls in place at potential suppliers or outsource partners before agreeing to work with them. As cyber-risks become an increasingly important issue for organisations, cybersecurity needs to be one of the areas addressed when evaluating potential suppliers.

If a potential partner's security is not good enough, this is just as important a reason for not selecting them as concerns about their ability to supply the quality or quantity required of a product. As the technical manager of ICAEW's IT faculty (Kirstin Gillon) noted in an article in *Finance & Management*, 'Businesses are increasingly requiring adherence to security standards along their supply chain, and the ability to demonstrate good security practice will become a normal part of many procurement processes. Failure to meet these standards will exclude businesses from the bidding process.'

Importantly, companies need to recognise that the supply chain extends beyond their own direct (Tier1) suppliers to the sub-tier (Tier 2, 3 etc) suppliers, who in turn supply the Tier 1. As such, questions a company should ask when evaluating a potential supplier include:

- Who are the supplier's strategic partners and subcontractors?
- Who does the supplier purchase components and services from?
- How does the supplier manage their own supply chain risks?
- And, more generally, how does the supplier ensure the security of its own data and information systems?

The cybersecurity of any organisation within the supply chain is potentially only as strong as the weakest member of the supply chain. An attacker can exploit vulnerabilities in the weakest member's systems to gain access to other members of the supply chain.

Consequently, in order to cover cyber-risks in a supply chain, organisations need not only to assess their own internal security environment, but also the security environments of all the other parties in their supply chain. For example, credit card organisations need to assess risks with merchants, distributors, credit card markets, banks, and service providers.

Two of the key supply chain cyber security measures organisations can take for minimising risks include:

- buying only from trusted vendors
- educating users on the threats and protective measures they can take

These points highlight the importance of people (and not just 'technology') in maintaining cyber security – and data security more generally.

4.18.3 People and behaviour

ICAEW's report *Audit insights: cybersecurity* (2016) notes that people are often the weakest link in cybersecurity. Poor password discipline, clicking on infected links, inserting infected USB sticks into systems are all common ways that attackers can exploit human weaknesses to get access to systems and data. Indeed, as businesses generally improve their technical defences against external attacks, criminals are increasingly targeting staff to provide unauthorised ways into networks and data.

To mitigate this, many businesses now undertake security training and awareness campaigns for employees. However, it is proving difficult to embed the behavioural changes needed to support effective cyber processes within organisations.

As a result, some businesses are attaching more significant consequences where staff fail to comply with policies and expected behaviours. Organisations also need to rethink their approach to cybersecurity training more radically to improve their results. Training is often generic and does not connect good practices with the specific business imperative for following them.

In many organisations, all employees go through the same training, although specific roles are likely to require different levels of cyber-risk awareness and training. For example:

- staff handling customer data or sensitive commercial data will need high levels of awareness and care in their day-to-day jobs, and therefore detailed training may be needed
- staff in finance functions may be subject to specific attempts of social engineering (for example, phishing) and fraud, so training could focus particularly on that
- other staff in the organisation may just need general awareness of good security practices

Moreover, until businesses get better at linking cyber-risks with business objectives, and attaching real consequences to non-compliance with expected behaviours, cybersecurity training and campaigns are unlikely to have the desired impact.

Context example: DVLA

The Driver and Vehicle Licensing Agency (DVLA), which we referred to earlier in relation to 'insourcing', is an executive agency of the UK Department of Transport. It holds around 48 million driver records, around 40 million vehicle records, and collects about £6 billion a year in Vehicle Excise Duty.

Effective information governance and cybersecurity are critical to its digital transformation and to maintaining public confidence in its services. Embedding good information security behaviours across its 5,500 employees is also vital. Some of the Agency-wide factors that support this include:

- proactive leadership on all aspects of information security through a senior data governance board reporting directly to the executive team
- a willingness to learn and share. For example the Agency took part in a consensual audit carried out by the Information Commissioner's Office, which assessed the security of its personal data and its data sharing controls, and received a high assurance rating.
- a comprehensive assurance programme for third parties receiving DVLA's data to help ensure they meet their contractual obligations to protect it
- a tailored annual information security training programme for all staff which is fresh and engaging

Source: ICAEW IT faculty (2016) Audit insights: cybersecurity

4.19 Business performance and financial performance

In Section 4, we have looked at three techniques that organisations could use to try to modify the activities within their value chains: supply chain management; business process re-engineering and outsourcing.

Two of the key drivers behind the decision to restructure the value chain in one of these ways are:

- potential cost savings
- improved working capital management

As we will see in Section 5, the whole point of designing – or re-designing – any process is to ensure that it is appropriate for whatever it is trying to achieve. Slack *et al* identify five key basic performance objectives for all organisations: cost, quality, speed, reliability (dependability) and flexibility.

Cost:

- Can process costs be reduced?
- How do the organisation's working capital ratios compare to competitors' ratios?
- Can working capital costs (including inventory) be reduced? (For example, is the organisation producing stock to order – just in time – as far as possible?)
- Can the level of investment (capital employed) that is necessary to produce the required type and quantity of products or services be reduced by improving capacity utilisation or by the organisation being more innovative in how it uses its physical resources?

Quality:

- Does the output from the process meet the required quality specifications?

Speed:

- Is throughput time (the total length of the process) as low as it can be?
- What is the level of in-process inventory? Can this be reduced?

Reliability:

- Can the volume and time of output be reliably predicted*?
- Are products and services delivered on time?

* In the previous chapter we looked at big data and analytics. Analytics could be very useful for an organisation in optimising inventory management and logistics.

Flexibility:

- Can the process cope with unexpected changes to what is being produced, or quantities being produced?
- Can the process adapt to changes quickly and at low cost?

Context example: Kitchen manufacturing

We have identified cost savings and improved working capital management as the two key drivers for restructuring the value chain.

We will look at issues around inventory management and working capital management in Treasury and working capital management, but the following example illustrates how operations management can affect an organisation's costs and profitability.

A kitchen manufacturing company currently produces 5,000 units per year, and its forecast operating profit for the year is:

	£'000
Sales revenue	5,000
Operating expenses (variable costs)	(4,500)
Operating profit (EBIT)	500

The company is considering three options to boost its earnings:

Option 1: organise a sales campaign which is expected to generate a 30% increase in sales. However, to support the campaign, the company will need to upgrade its marketing information, and the upgrade is expected to cost £100,000.

Option 2: reduce operating expenses by 15% as a result of creating performance improvement teams that will eliminate waste from the company's operations.

Option 3: invest £150,000 in new, more flexible machinery which allows the company to respond more quickly to customer orders, and charge 10% extra for this faster service.

If the company can only undertake one of the options, which one should it choose?

	Option 1 (£'000)	**Option 2 (£'000)**	**Option 3 (£'000)**
Sales revenue	6,500	5,000	5,500
Operating expenses	5,850	3,825	4,500
Operating profit (EBIT)	650	**1,175**	1,000
Investment required	100	–	150

Option 2 generates the highest operating profit, and so should be the preferred option.

Increasing sales volume by 30% (Option 1) improves the company's sales revenue, but operating expenses (variable costs) will also increase. Operating profit increases by £150,000, but the company has had to invest £100,000 in the system upgrade to achieve this.

Reducing operating expenses by 15% (Option 2) is significantly more efficient, and leads to operating profit more than doubling from its current level (from £500,000 to £1,175,000). Furthermore, no capital investment is required in this option.

In the third option, the price premium which the company can charge as a result of its improved customer service (rapid response) leads to an increase in sales revenue of £500,000. There is no indication that the quantity of sales increases as a result of the improved service though, so operating expenses remain unchanged. As a result, operating profit increases to £1,000,000 although this option requires an investment of £150,000.

Therefore, in this example, the potential benefit (to operating profit) which can be achieved by reducing operating costs is greater than the benefits that could be achieved by increasing sales volume or sales price.

(Based on an example in Slack *et al*, *Operations Management*)

5 Operations strategy and management

Section overview

- Operations strategy looks at how to manage the resources within an organisation which produce products and services.
- Operations management is concerned with the design, implementation and control of the processes in an organisation which transform inputs into outputs.

5.1 Operations strategy

In the preface to their text, *Operations Strategy*, Slack and Lewis emphasise the range of decisions with which operations strategy is concerned, and their fundamental importance for organisations. These decisions include consideration of the following:

- How should the organisation satisfy the requirements of its customers?
- What intrinsic capabilities should the organisation try to develop as the foundation of its long- term success?
- How specialised should the organisation's activities be?
- How big should the organisation be?
- What should it do itself, and what should it contract out to other businesses?
- How should the organisation develop relationships with other organisations?
- Where should the organisation locate its resources?
- What type of technology should the organisation invest in?
- Should the organisation sacrifice some of its objectives to excel at others?
- How should the organisation's resources and processes be improved and developed over time?

There are links between a number of these questions and issues such as supply chain management, outsourcing and change management. However, the extent of these links reinforces the importance of operations strategy and operations management to an organisation successfully implementing a strategy and achieving a sustainable competitive advantage.

Discussions of strategic management and performance management often stress the distinction between strategic and operational levels – with the 'operational' being characterised as detailed, localised, and short term, day to day.

However, operations can have a key strategic impact: operations resources are central to long-term strategic success, and the way that organisations manage their operations can have a significant effect on their competitiveness relative to their competitors.

Perhaps, even more importantly, it is vital that organisations avoid strategic decisions being frustrated by poor operational implementation. As such, the operations functions within an organisation make a crucial contribution to its strategic success.

Consequently, as Slack and Lewis caution, while operations management does relate to detailed and short-term decisions, managing the resources and processes which produce goods and services should also be seen as a longer-term and strategic issue. Moreover, it is certainly one which can have a significant strategic impact.

As such, operations strategy is concerned with how the competitive environment is changing and what an operation has to do in order to meet the current and future challenges presented by that environment. Operations strategy is also concerned with the long-term development of an entity's operational resources and processes so that they can provide the basis for a sustainable advantage.

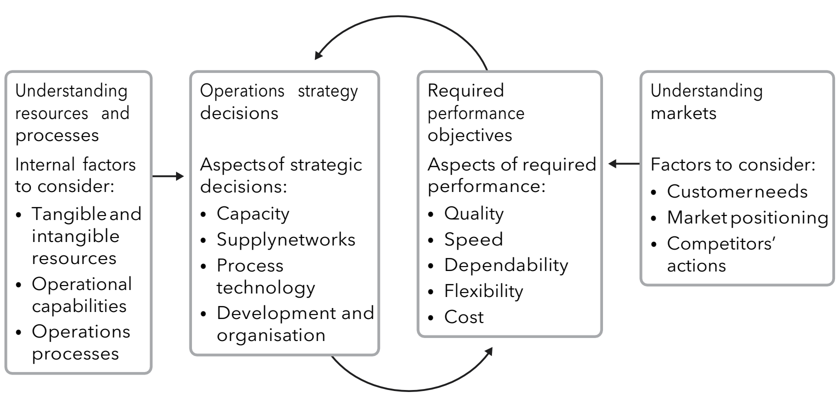
Slack and Lewis (in *Operations Strategy*, 2011) observe that although many consumer products businesses (such as Coca-Cola) are marketing and brand driven, they still need a strong operations strategy to be successful. Although their brand position may be shaped in consumers' minds by promotional activities, this would soon be eroded if the company could not deliver products on time, if their quality was substandard, or if it could not introduce new products in response to market trends. Similarly, for consumer products companies (like Coca-Cola, Unilever and Heinz) if their operations are capable of mastering new processes or technologies, or flexing their capacity, or running agile yet efficient supply chains, or continually cutting cost out of the business through improvement programmes, they will have a huge advantage over less capable rivals.

In this respect, operations strategy has a key role in reconciling an organisation's operational resources (capacity, supply networks, process technology) with market requirements (in terms of quality, speed, dependability, flexibility and cost).

Operations strategy can also attempt to influence the way an organisation satisfies market requirements by setting appropriate performance objectives.

Figure 3.4 summarises operations strategy's role in reconciling operational resources with market requirements, and the way it can also influence performance objectives:

Figure 3.4: Operations strategy and matching operational resources to market requirements



5.2 Operations management

Definition

Operations management: Concerned with the **design**, **implementation** and **control** of the **processes** in an organisation that transform inputs (materials, labour, other resources, information and customers) into output products and services.

Operations management is the activity of managing the resources within an entity that produce and deliver products and services. As Slack *et al* in *Operations Management* express it, 'Operations management uses resources to appropriately create outputs that fulfil defined market requirements.'

Equally importantly, though, operations management has the potential to 'make or break' a business. Not only does the operations function employ the majority of the assets and people in many businesses, but it also gives an entity the ability to compete by responding to customers and developing the capabilities which will enable the entity to keep ahead of its competitors in the future.

The overall objective of operations is to use a transformation process to **add value** and **create competitive advantage**. The operations function takes input resources and transforms them into outputs of products or services for customers. As such, operations management involves the design, implementation and control of these processes.

Context example: Operations management at IKEA

As a successful furniture retailer, IKEA has clearly demonstrated that it understands its market and its customers.

Equally importantly, however, it has also been able to satisfy its customers' requirements effectively – by designing, producing and delivering products and services which satisfy those requirements.

These attributes of design, production and delivery are essentially what operations management is about.

This can be illustrated by looking at some of the activities which IKEA's operations managers are involved in:

- Arranging store layouts to give smooth and effective flow of customers: process design
- Designing stylish products that can be flat-packed efficiently: product design
- Locating stores of an appropriate size in the most effective place: supply network design
- Arranging for the delivery of products to stores: supply chain management
- Responding to fluctuations in demand: capacity management
- Avoiding running out of products for sale: inventory management
- Maintaining cleanliness and safety of storage areas: failure prevention
- Monitoring and enhancing quality of service to customers: quality management
- Ensuring that staff can contribute to the company's success: job design
- Continually examining and improving operations practice: operations improvement

Although these activities are only part of IKEA's total operations management responsibilities, they give an indication of how operations management contributes to the business's success and, equally importantly, what would happen if IKEA's operations managers did not carry out any of the activities effectively. For example, inappropriate products, poor locations, badly laid out stores, empty shelves or disaffected staff could all turn a company that has previously been successful into a failing one.

Adapted from a case study in Slack, N., Chambers, S. & Johnston, R. (2010) *Operations Management,*

6th edition, Harlow: Pearson

Operations in an entity

In *Operations Management*, Slack *et al* highlight that the operations function is one of three core functions in any company.

The three are:

(a) **Marketing and sales.** This is responsible for identifying customer needs and, perhaps more significantly, for communicating information about the organisation's products or services to customers so as to procure sales orders.

(b) **Product and service development.** This is responsible for creating new or improved products and services that will meet customer needs, to generate future sales orders.

(c) **Operations.** This is responsible for fulfilling customer orders and requests through production and delivery of the products or services.

The core functions: examples

	Publishing company	Hotel
Marketing and sales	• advertise through trade magazines • book fairs • negotiate sale of rights	• advertise across media (online and offline) • liaison with tour operators, travel agents and booking agents
	• sell into bookshops and other retail outlets (including online – eg, Amazon)	• liaison with online travel sites (eg, Expedia; otel.com)
Product/ service development	• commission new titles • review submitted scripts • develop new media forms, eg, internet delivery	• develop accommodation offerings: comfort and presentation of rooms; catering; and ancillary facilities such as gym; business centre; conference facilities; entertainment • devise new packages • identify new locations
Operations	• editing • printing • distribution	• reservations • housekeeping • building maintenance • security • cleaning and laundry • catering • customer service • entertaining

Alongside these three core functions, there are also **support functions** within an organisation that help the core functions to operate effectively. Traditionally, support functions might include accounting and finance, human resources and IT. (This conception of core functions being supported by auxiliary functions is reminiscent of Porter's value chain, which we discussed in Strategic analysis.)In practice, what is actually a core function or a support function for an organisation is likely to depend on the nature of the particular organisation. Moreover, the functions within an organisation overlap and, for any particular task or process, input is often required from more than one core function or support function.

Slack *et al* highlight the importance of the relationships between operations functions and the other core and support functions within organisations:

Function	Relationship between function and operations function
Technical	Operations function identifies process technology needs and requirements. Technical function identifies process technology options.
Product/ service development	Development function identifies potential new product/ service ideas. Operations function communicates the capabilities and constraints of existing operations processes (which could affect an organisation's ability to deliver the proposed new products or services).
Marketing function	Marketing function identifies market requirements. Operations function communicates the capabilities and constraints of the operations processes to satisfy those market requirements.
Information systems (ISs)	IS function provides systems for design, planning and control, and improvement of operational processes. Operations function communicates IS requirements to the IS function.
Human resources (HR)	HR function oversees recruitment, development and training needs of the operations functions.
	Operations function communicates human resource needs to the HR function.
Accounting and finance function	Accounting and finance function provides financial analysis for performance measurement and to support decision making. Operations function (and operating systems) provides relevant data to the accounting and finance function.

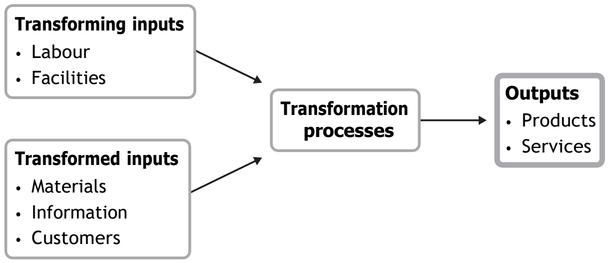
Based on: Slack, N., Chambers, S. & Johnston, R. (2010) Operations Management, 6th edition

5.2.1 The transformation process model

In simple terms, all operations produce products or services by changing **inputs** into **outputs** through one or more transformation processes. Input resources are either used to transform something, or they are transformed themselves into a product or service that satisfies customer needs.

This generalised concept of the transformation process applies to all operations and may be depicted as follows:

Figure 3.5: The transformation process model



The following are a small sample of practical examples of the transformation process model in practice.

(a) In a **manufacturing process**, inputs of raw materials and components are transformed by the workforce, using the facilities of the organisation, into a finished product. This is then distributed to the customer. Production and distribution are stages in the transformation process. The output is the product.

(b) In the **legal profession**, a client seeks clarification about a legal problem. A lawyer holds a meeting with the client and provides the necessary advice. The output is an informed client.

(c) In the **rail industry**, rail service providers take customers, and use their workforce and facilities (eg, trains) to deliver the customers from one location to another. The output is a relocated customer.

(d) In **banking**, instructions from a customer (information) are processed using the facilities of the bank, and the instructions are carried out, for example, by the transfer of money. The output is the completed transfer.

(e) In a **health service**, a patient will be admitted to hospital to receive treatment in order to cure an illness. The doctor uses their skill to diagnose the problem and then uses the facilities (eg, medical equipment) to treat the patient. The output is a healthy patient.

An operation might process a mix of materials, information and customers. However, it is often possible to categorise operations by the type or category of transformed resource that they process.

(a) Materials processors include manufacturing companies, retail businesses, mining and excavation operations, goods transportation services and postal services.

(b) Information processors include firms of accountants and lawyers, many banking operations, newspaper publishing (although this has a strong element of materials processing too), management consultancy and market research.

(c) Customer processors include education organisations, transport services, hotels, theatres, hospitals and hairdressers.

Operations can also be differentiated according to the transforming inputs they use. Some are more **labour intensive** and some more **capital intensive than others**.

5.2.2 The hierarchy of processes

So far, we have looked at the transformation process (the 'input-transformation-output' model) as a single operation. In effect, we have adopted a **macro perspective**. However, while, for example, an operation in an advertising agency to produce a campaign for a client can be seen as a single overall operation, it can also be seen as a number of separate **micro operations**, that all have to be carried out successfully in order to transform the original input into the final finished output.

The overall macro operation contains a number of micro operations, such as TV advertisement production, copywriting and editing for magazine advertisements, artwork design and production, media selection, media buying, and so on. Within each of these micro operations, there are other operations. Producing a TV advertisement, for example, involves micro operations such as story- boarding and script writing, film production, the shooting of the film and film editing.

A **macro operation** can therefore be seen as a hierarchy of micro operations or sub-operations and sub-sub-operations. (Equally, the input-transformation-output model can be used at a number of different levels of analysis.)

Each **micro operation**, like the macro operation, can be analysed in terms of the transformation process model, transforming input materials, information or customers into an output product or service. However, either the customer or the supplier, and more commonly both the customer and the supplier, are other people within the same organisation. The terms **internal supplier** and **internal customer** are used to describe this relationship.

For example, a road haulage company might have operational units for maintenance and servicing of vehicles, loading and driving. One micro process within the overall operation is the repair and servicing of vehicles. The mechanics servicing the vehicles are the internal suppliers in the process, and the drivers of the vehicles are the internal customers. Similarly, the team that loads the vehicles is an internal supplier in the loading operation, and the drivers are the internal customers.

It can be useful in operations management to think in terms of micro processes and internal suppliers and internal customers. This can focus attention on the purpose of each micro process, the efficiency with which it is carried out, and the extent to which it satisfies the customer's needs.

However, unlike external customers, internal customers cannot usually express their dissatisfaction with an internal supplier by taking their business to a different supplier.

Nonetheless, by treating internal customers with the same degree of care as external customers, the effectiveness of the whole operation can be improved.

5.2.3 Operations and business processes

For the purpose of operations management, it is also useful to remember that **operations take place in all functions** of an organisation, not just the operations function. The marketing function, for example, transforms information and materials, using staff and facilities, into marketing and sales operations. The accounting function transforms raw accounting data into usable management information and reports.

Operations are, therefore, both a **core function** within an organisation, and **activities** within other functions. The principles of operations management apply to both.

5.2.4 Operations and competitive advantage

As we noted at the start of this section, the overall objective of operations is to **contribute to the competitive advantage** of an organisation.

Effective operations management can generate five types of advantage for an organisation:

(a) It can reduce the costs of producing products and services.

(b) It can increase customer satisfaction through good quality and service.

(c) It can reduce the risk of operational failure, because well-designed and well-run operations should be less likely to fail. If they do fail, they should be able to recover faster and with less disruption than operations which are less well run.

(d) It can reduce the amount of capital that has to be employed to provide the type or quantity of products and services which are required. The more effectively an organisation can use its resources and capacity, the less capital it should need to produce its products and services. Therefore, effective operations management can reduce the need for additional investment.

(e) It can provide the basis for future innovation. Experiences learned from operating the processes can build a base of operations skills, knowledge and capability in the business, which can then enhance innovation.

5.2.5 Operations performance objectives

In order for an organisation's operations to contribute to its competitive advantage and strategic success, the aims of its operations need to be aligned to its overall strategies.

In this respect, Slack, Chambers and Johnston in *Operations Management* identify five basic 'performance objectives'. Slack *et al* stress that the objectives will mean different things for different operations, and some may be relatively more important than others in different contexts.

Nevertheless, the five objectives can be used for evaluating operations to assess how well they are satisfying customers and contributing to competitiveness and strategic success.

Quality –This entails the delivery of error-free goods or services, which are 'fit for the purpose' and provide a quality advantage. Quality is a major influence on customer satisfaction. If a customer perceives a product or service to be high quality, and is satisfied as a result, they are more likely to purchase the product or service again.

A customer's assessment of quality can be based on objective ('hard') characteristics, as well as their personal interaction with the product or service ('soft' characteristics).

'Hard' dimensions of quality	'Soft' dimensions of quality
• product/service features • performance • reliability • aesthetics • security/safety	• helpfulness • attentiveness • communication • friendliness • courtesy

Speed – The faster a customer can have the product or service, the more likely they are to buy it, the more they will be prepared to pay for it, or the greater the benefit they receive from it. In medical emergencies, for example, the speed at which a patient is treated could, literally, mean the difference between life and death.

Dependability – This refers to the organisation consistently meeting its promises in relation to delivery of goods and services. For example, whether you can depend on your train arriving at its destination on time, and have seats available on it.

While speed, quality and cost (price) are all likely to be important operations performance objectives for McDonald's fast food restaurants, it could be said that customers are most attracted by the dependability factor. For example, customers can be confident that whichever McDonald's outlet they go to, they will be able to obtain a similar burger with a standard garnish.

Dependability and speed are often linked, with the overall 'delivery performance' which a customer receives being the result of speed and dependability.

There is a danger that companies try to avoid poor dependability results by increasing the lead times they give to customers (ie, reducing speed). However, such an approach is unlikely to be successful for two reasons: firstly, delivery times tend to expand to fill the time available; secondly, and more importantly, long delivery times are often the result of slow internal responses, complexity and lack of control within internal processes, which all contribute to poor dependability. Therefore, rather than increasing delivery times, an organisation should try to increase the speed and efficiency of its processes.

Flexibility – The ability or willingness to change an operation in some way, for example either in relation to the range of products or services offered (**range flexibility**), or in relation to the time necessary to respond to changes in demand (**response** flexibility).

We can identify four different types of flexibility, each of which can be shaped by range and response dimensions:

(a) **Product/service flexibility** – The ability or willingness to introduce new products/services, or to modify existing ones, and the time taken to do so.

(b) **Mix flexibility** – The ability or willingness to adjust the range or mix of products/services.

(c) **Volume flexibility** – The ability to change the aggregate level of activity or output, and to provide different quantities of a product or service over time.

(d) **Delivery flexibility** – The operation's ability to change the timing of the delivery of products or services; for example, a car manufacturing plant's ability to reschedule manufacturing priorities, or a hospital's ability to reschedule appointments.

Cost – For companies which compete directly on price, cost is their major operating objective. The cheaper they can produce their goods or services, the lower the price they can charge their customers while still earning a profit margin. However, even companies which do not compete directly on price will still be interested in keeping their costs low, because a reduction in costs should translate into an increase in profit (assuming other factors remain the same).

All operations therefore have an interest in keeping their costs as low as possible while still meeting the levels of quality, speed, dependability and flexibility which their customers require. A measure often used to express how well an operation is achieving this is productivity – the ratio of the output produced by an operation in relation to the input required to produce it.

Slack and Lewis point out that a broad definition of 'cost' is applied in relation to operations strategy. In this context, 'cost' is any financial input to an operation which enables it to produce its products and services. Therefore an operations cost includes: operating expenditure, capital expenditure and working capital.

Performance trade-offs

At the start of this sub-section, we noted that some of the five performance objectives might be more important than others for specific organisations. For example, the speed with which a hospital can carry out a lifesaving operation is likely to be more important than the cost.

This idea of differential importance could be particularly relevant if an operation is faced with a trade- off between performance objectives. For example, if the cost of an operation needs to be reduced, this may only be possible by reducing the level of flexibility which can be offered.

Conversely, there will also be occasions when improving the performance of the other four operations objectives leads to an improvement in cost performance. For example, improving operations quality will lead to a reduction in the time and cost spent correcting mistakes, reproducing faulty items, or dealing with customer complaints.

Performance objectives and key performance indicators (KPIs)

We will look at performance measurement and KPIs in more detail in the next chapter, but one of the problems organisations face when designing a performance measurement system is deciding which aspects of performance to measure. In this respect, considering an operation's performance objectives, and which of them are most important for the continued success of that operation, could be a useful way of identifying KPIs for that operation.

Slack and Lewis also note that a possible way for managers to drive improvements in operational performance is through benchmarking key elements of performance against 'best in class' competitors.

5.2.6 Performance objectives and competitive factors

As we have already noted, operations play a key role in adding value and creating competitive advantage. However, both these roles ultimately need to be referenced for the customer. As a result, performance objectives for the operations function must also be consistent with the needs and expectations of customers. For example, there is no point in producing a high-cost, high-quality product if the customers' needs are driven by speed and cost.

Factors that are used to define customers' requirements are known as **competitive factors**. Depending on the perceived strength of each competitive factor in a particular market or market niche, a mix of performance objectives can be determined.

(a) If customers require a low-priced product, operational performance objectives will focus heavily on achieving a low cost of output.

(b) If customers desire a high-quality product, and are willing to pay more to obtain it, operational performance objectives will focus on quality, perhaps within a cost constraint.

(c) If customers need fast delivery of a product or service, operational objectives should be directed towards achieving or improving speed.

(d) If customers want reliable delivery, operations should have a reliability objective. An example would be a courier service, where customers might want delivery of packages within a particular time. An operational objective for the courier company might therefore be to guarantee delivery by 9am on the following working day for all packages collected before 5pm the previous day.

(e) Where customers prefer tailor-made or innovative products or services, operational objectives will be expressed in terms of flexibility in product manufacture or service delivery. If customers demand a wide range of products or services, operational objectives should be expressed in terms of flexibility to deliver the range of items demanded.

(f) If customers want to change the timing or delivery of the products or services they receive, there should be operational objectives for flexibility in volume and speed.

Order-winning vs qualifying factors

Another way of determining the relative importance of different competitive factors is to distinguish between those which are 'order-winners' and those which are 'qualifying' factors.

Order-winners are factors which are regarded by customers as key reasons for purchasing a product or service (in preference to a rival product or service). Raising performance in an order-winning factor will either result directly in more business, or it will improve an organisation's chance of gaining more business.

Although **qualifying factors** are not the major competitive determinants of success, they are the aspects of competitiveness in which an operation's performance has to achieve a certain level before it will even be considered by the customer.

However, regardless of how well an organisation performs at its qualifiers, they, by themselves, are not going to generate any significant competitive benefits. By definition, customers expect qualifiers to be present, so an organisation cannot expect to achieve any competitive advantage by providing them. By contrast, however, if an organisation does not achieve satisfactory performance in its qualifiers, this is likely to result in considerable dissatisfaction among customers – which in turn could lead to an organisation **losing** customers. Therefore, while order-winners provide the greatest opportunity for competitive benefit, qualifiers have great potential to have a negative impact on performance.

In effect, if we think back to the concepts of resource-based strategy we considered in Strategic analysis of this Workbook, order-winners could be seen as an organisation's critical success factors, or its core competences. In turn, qualifying factors are more like threshold competences.

5.2.7 Decision areas

Figure 3.3 earlier in the chapter highlights that, as well as identifying performance objectives in relation to the five key performance areas of quality, speed, dependability, flexibility and cost, operations strategy decisions have to be made in relation to capacity, supply networks, process technology, and development and organisation.

Capacity strategy – This relates to how capacity and facilities should be configured, and deals with issues such as the following:

- What should the overall level of capacity be? (ie, how big should an operation be?)
- How many sites are required to deliver this capacity, and what size should they be?
- Where should capacity be located? (eg, close to customer locations, or according to the availability of required resources?)
- Should each site carry out a range of activities, or should they specialise in a small number of activities?
- When should capacity be changed, and by how much should it be changed?

In essence, when faced with decisions about capacity, organisations are faced with the following dilemma: too much capacity drives costs up, and leads to resources being underused; too little capacity limits the operation's ability to serve customers and therefore to earn revenues.

Market requirements play a key role in determining capacity: in particular, forecast levels of demand. However, market demand is not static, so organisations have to plan their capacity levels against a backdrop of uncertainty of future demand (for example, due to change in customer tastes and trends, or competitor activity).

As well as forecasting overall levels of demand, understanding the timing of that demand can influence capacity. If demand is increasing, and competitive conditions dictate fast response times, then an operation will be under greater pressure to increase capacity than if customers are willing to wait for a product or service.

Once again though, organisations are faced with a dilemma:

(a) If they adopt a capacity-leading strategy (ie, introduce additional capacity such that there is always sufficient capacity to meet forecast demand), revenue will be maximised and customers will be satisfied, but the increased capacity will require additional capital expenditure, and may actually result in overcapacity if demand does not reach forecast levels.

(b) If they adopt a capacity-lagging strategy (ie, manage capacity so that demand is always equal to, or greater than, capacity), an organisation ensures that its operations are always working at full capacity, but if there are increases in demand it may not be able to meet them fully – leading to lost revenue and dissatisfied customers.

(c) Some organisations can use inventories to smooth capacity change, such that current capacity plus accumulated inventory can supply demand. However, such a strategy could lead to increases in working capital requirements and the cost of inventories held. Also, this kind of smoothing strategy is not possible for many service operations: for example, a hotel cannot satisfy demand for rooms in one month by using rooms that were vacant in the previous month.

An organisation's capacity is also influenced by internal factors: for example, the availability of capital to support an expansion, or the cost structure associated with any expansion. The ideas of fixed costs and the breakeven point are particularly important here. If an organisation has to invest in additional fixed costs to increase output, but the volume of output resulting from the incremental fixed costs is less than its breakeven point, an organisation may well choose not to increase its output (because it will operate more profitably by producing the lower level of output).

Equally, however, the idea of economies of scale could encourage operations to increase their capacity and output in order to lead to a reduction in the unit cost of the products or service being produced. Similarly, economies of scale in production may encourage an organisation to concentrate output at a small number of large sites; but in turn, such an approach could lead to increased transportation costs and delivery times.

Supply network strategy, including purchasing and logistics – This concerns how operations relate to the network of customers and suppliers (which we have already considered in the context of supply chain management earlier in this chapter). The decisions being made in relation to supply network strategy include the following:

- How much of the supply network does an entity wish to own (ie, what degree of integration does it want within its supply chain network)?
- Which operations should an organisation carry out in-house, and what should it buy from external suppliers (outsource)?
- How does an entity predict and cope with dynamic disturbances and fluctuations within the network?
- How many suppliers should it have?
- Should the entity's relationship with its suppliers be purely market based (around individual transactions) or should it seek to develop long-term partnerships with suppliers?
- Should the entity manage its supply chain network in different ways for different types of market?

Process technology strategy – Process technology decisions relate to the choice and development of the systems, machines and processes which are used to transform input resources into finished products or services.

However, process technology decisions also relate to the infrastructural and informational technologies which help control and coordinate processes. For example, in retail industries, inventory control systems link customer requirements and purchases with the supply chain; while in the airline industry, yield planning and pricing systems can play a key part of a company's competitive strategy.

The type of technology which is appropriate in different processes is likely to depend on the volume and variety in that process.

(a) **High volume** – low variety processes can use technology which is dedicated to a relatively narrow range of processing requirements. The technologies used in high volume – low variety processes are often highly automated, large scale and closely coupled. (Coupling refers to the linking together of separate activities within a single piece of technology to form an interconnected processing system.) They are usually designed to try to make production costs as low as possible. As a result, they tend to be capital intensive, rather than labour intensive.

(b) **High variety** – low volume processes demand technology which is general purpose, such that it can perform the wide range of processing activities involved in high variety processes. The high level of variety also means that these processes will require a higher degree of flexibility than high volume– low variety ones.

Appropriate process technologies for high variety–low volume processes are likely to have relatively low degrees of automation because there will be a significant amount of human intervention (ie, the processes will be relatively labour intensive). Similarly, the technologies are likely to be smaller scale and less closely coupled than those which are required for high volume–low variety processes.

Scale and scalability are also important considerations for process technologies, particularly for information processing technologies. Slack and Lewis define scalability as 'the ability to shift to a different level of useful capacity quickly, cost-effectively and flexibly'.

The need for scalable process technologies is particularly strong if the process technology is customer facing and in a dynamic marketplace where there can be significant variations in demand. For example, if the capacity of e-commerce websites is too low, the technology (server etc) can become swamped during periods of high demand, leading to customer dissatisfaction at the slowness of the website.

Coupling and connectivity – We have already identified the importance of coupling in information processing technology in our discussion of supply chain management earlier in this chapter. For example, supermarkets allow key suppliers access to shared data portals which provide real time information about how products are selling in their stores. Such a system enables the supply companies to modify their production and delivery schedules in order to meet demand more precisely and to ensure fewer stock-outs.

Another key issue in resource planning and control is managing the information generated from different functions **within** a business, which again highlights the potential importance of **ERP** systems, which we mentioned earlier in the chapter.

Development and organisation – Development and organisation decisions are broad, long-term decisions about how an operation is run on an ongoing basis. The sorts of decision being considered here are:

- How does an entity enhance and improve the processes within an operation over time?
- How should new product and service development be organised?

For many organisations, product and service development is becoming increasingly important as competition in their markets becomes more intense. In many markets, there are a number of competitors who are very similar to each other in terms of the products and services they offer. In such circumstances, even small improvements to product and service specifications can have a significant impact on competitiveness.

In a number of places in this Manual already we have seen how technological developments have provided new opportunities for businesses and industries, but increasingly organisations are recognising that the responsibility for developing new products or services needs to be shared across the organisation as a whole. Every part of an organisation needs to challenge itself to think how it can deploy its competences and skills in order to develop better products and services, or – equally importantly – how to improve the processes which produce and deliver them.

Product development

Product development is often presented as a stage model, in which initial concepts are generated (either from within an organisation or from outside it – from customers or competitors) and then these initial concepts are screened in relation to whether they are consistent with an organisation's market positioning, whether they are feasible technically and operationally, and whether they are financially viable.

Following this concept screening, a preliminary design is made of the product/service, and this preliminary design is then evaluated, to see whether the design can be improved. After the design evaluation, the improved design is turned into a prototype so that it can be tested before the product is finally launched onto the market. For example, many retail organisations pilot new products in a small number of stores to test customers' reactions to them, before launching the products across all their stores.

Although Slack and Lewis acknowledge that stage models of product development are useful in identifying the activities which need to take place during the overall development activities, they suggest that in practice a more useful way of thinking about the product development process is as a funnel. Many concepts enter the development process (ie, at the wide end of the funnel) but the process then screens alternative designs against criteria such as market acceptability, technical capability, financial return and so on, until ultimately one 'best' design emerges from the narrow end of the funnel.

In many cases, the changes which operations experience are likely to be minor modifications or extensions to existing products/processes. However, at times there will need to be substantial changes. As we have noted earlier in this chapter, the scope and nature of a change will affect the way it needs to be managed in order for it to be implemented successfully.

Context example: Decision areas in a hotel

We looked earlier in the chapter at the core operating functions in a hotel, and similarly we can use the example of a hotel chain here to illustrate how the four decision areas we have just discussed could be applied in practice.

Decision area	Operations strategy decisions to be considered
Capacity	• How many rooms should each hotel have? What other facilities should each hotel have? • Should each hotel have the same set of facilities? • Where should the hotels be located? • How should the long-term expansion or contraction of capacity in different regions be managed?
Supply networks	• What activities should be performed in-house, and what should be bought in? • Should the hotels be operated by the company itself, or are there opportunities to develop them as franchises? • Should any alliances be formed with other travel and tourism companies?
Process technology	• To what extent should the hotel chain be investing in multi-functional ISs (eg, EPoS systems; apps to facilitate mobile ordering or provide a 'virtual concierge' service)? • Should all ISs be linked to a central system?

Decision area	Operations strategy decisions to be considered
Development and organisation	• How can new service features be integrated smoothly into existing operations? • What should the reporting responsibility relationships be – within and between hotels? • Should the hotel group promote company-wide improvement initiatives? • How can the group ensure that hotels learn from each other?

(Source: Slack, N., & Lewis, M., (2011) Operations Strategy, p. 28)

5.2.8 The operations strategy matrix

In Figure 3.3 we identified the importance of the two perspectives of market requirements and operational resources in determining operations strategy. While each perspective is important in its own right, the intersection between them is potentially more important.

Slack and Lewis use the concept of the operations strategy matrix to define this relationship, with operations strategy being characterised as the intersection of a company's performance objectives with its decision areas.

In other words, the organisation needs to consider how its capacity strategy is going to affect quality, speed, dependability, flexibility and cost. Likewise, how will flexibility be influenced by capacity, supply networks, process technology and development and organisation decisions?

Context example: 7-Eleven Japan

7-Eleven is an international chain of convenience stores, and its largest market is Japan, where it has over 15,000 stores, operated by franchisees. Earlier in the chapter we mentioned how 7-Eleven's supply chain design and operation – based around a very responsive replenishment system – acts as a source of competitive advantage for the company.

One of the key elements of 7-Eleven's success has been its inventory management system, which is supported by sophisticated IT. The company's 'Total Information System' (TIS) integrates all information from its stores, head office operations, district offices, suppliers, distribution centres and field 'counsellors' (regional managers). The TIS drives 7-Eleven's inventory management and distribution/delivery systems. By combining advanced information systems with an efficient distribution system, 7-Eleven has been able to minimise the time between orders being received from a store and goods being delivered to that store.

7-Eleven's expansion in Japan has been carefully planned to ensure that it develops its stores in clusters, with a minimum presence of 50 stores in any area. This helps to reduce both advertising and distribution costs.

7-Eleven has also encouraged its vendors to open common distribution centres where similar categories of goods – such as milk and dairy products – are combined for delivery to the stores on one truck. This enables small deliveries to be made to individual stores on a regular basis, which reduces the need for inventory space in the stores, but also guards against stock-outs.

The common distribution centre process has been refined further by grouping items for each centre by storage temperature rather than by product type: for example, frozen foods, chilled foods or foods stored at room temperature. This grouping helps to maintain product quality.

The TIS is vital in allowing the company to respond effectively to changes in trends and customer demand. Because 7-Eleven stores are relatively small (with an average floor space of just over 1,000 square feet) it is important that every product sold earns its shelf space. Networked cash registers and hand-held terminals allow sales staff to input details of the type of customer making each purchase. This information, coupled with the time of day when products are purchased, is monitored and analysed daily by product, customer type and store. The aggregated results – as well as data from individual stores – are used by 7-Eleven's field counsellors, whose job is to develop franchisees and help stores make more money.

Operations strategy matrix for 7-Eleven

Speed and dependability are both key performance objectives for 7-Eleven, and they can be combined into a single key objective of 'availability'. However, flexibility is perhaps even more important, such that Slack and Lewis suggest the 'pivotal intersection' in 7-Eleven's operations strategy matrix to be between its process technology (ie, the TIS) and the flexibility this provides to understand and respond to both sales and suppliers' trends.

The operations strategy matrix for 7-Eleven could be summarised as in the following table:

Operations Strategy Matrix for 7-Eleven Japan

	Capacity (Factors: location of stores; size of stores)	**Supply networks (Factors: number and type of distribution centres; ordering and inventory replenishment)**	**Process technology (TIS)**	**Development and rganisation (Factors: Franchisee relationships; new product/service development; opportunities for improvement)**
Quality of products and services		Distribution centre grouping by temperature		Information sharing and parenting system spread service ideas
Speed; Dependability (Together lead to availability)		Distribution centres and inventory management systems enable fast inventory replenishment		
Flexibility of response to sales and customer trends		TIS allows trends to be forecast and supply adjustments made	TIS gives sophisticated analysis of sales and supply patterns daily (*)	

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Cost (including operating cost; working capital)	Clustering and area dominance reduces distribution and advertising costs	Common distribution centres give small, frequent deliveries from fewer sources		Field counsellors with sales data help stores to reduce waste and increase sales

(*): This is the most critical intersection in the matrix

Adapted from a case study in Slack, N., & Lewis, M., (2011) *Operations Strategy,* 3rd edition, Harlow:Pearson

5.3 Operations: The four Vs

The characteristics of different operations will also affect the way in which they are organised and managed. These characteristics can be summarised as 'the four Vs':

- the volume of their output
- the variety of their output
- the variation in the demand for their output
- the degree of visibility which customers have of the production of their output

	Type	Implication
Volume	Operations differ in the volume of inputs they handle and the volume of output they produce. For example, there is a big difference between the volume of output at a McDonald's and at a small restaurant, even though both provide a dining service.	High volume might lend itself to a capital- intensive operation, with specialisation of work and well-established systems for getting the work done. Unit costs should be low. Low-volume operations mean that each member of staff will have to perform more than one task, so that specialisation is not achievable. There will be less systemisation, and unit costs of output will be higher than with a high volume operation.
Variety	Variety refers to the range of products or services an operation provides, or the range of inputs handled. For example, an operation might produce goods to customer specification, or it might produce a small range of standard items.	When there is large variety, an operation needs to be flexible and capable of adapting to individual customer needs. The work may therefore be complex, and unit costs will be high. When variety is limited, the operation should be well defined, with standardisation, regular operational routines and low unit costs.

Variation in demand	For some operations, demand might vary with the time of the year (for example, operations in the tourist industry) or even the time of day (eg, telecommunications traffic and commuter travel services). Variations in demand might be predictable, or unexpected. For other operations, demand might be fairly stable and not subject to variations.	When the variation in demand is high, an operation has a problem with capacity utilisation. It will try to anticipate variations in demand and alter its capacity accordingly. For example, the tourist industry takes on part-time staff during peak demand periods. Unit costs are likely to be high because facilities and staff are underused in the off-peak periods. When demand is stable, it should be possible for an operation to achieve a high level of capacity utilisation, and costs will accordingly be lower.
Visibility	Visibility refers to the extent to which an operation is exposed to its customers, and can be seen by them. Many services are highly visible to customers. High visibility operations need staff with good communication and interpersonal skills. They tend to need more staff than low visibility operations and so are more expensive to run. Some operations are partly visible to the customer and partly invisible, and organisations might make this distinction in terms of front office and back office operations. For example, in an airport, the check-in desks, information desks, passport control and security staff are all clearly visible to customers. By contrast, while baggage handling, aircraft cleaning and loading food/drink onto aircraft are all crucial in the smooth running of the operation, they are low-visibility tasks.	When visibility is high, customer satisfaction with the operation will be heavily influenced by their perceptions. Customers will be dissatisfied if they have to wait for high visibility processes, so staff will need high customer contact skills. Unit costs of a visible operation are likely to be high. When visibility is low, there can be a time lag between production and consumption, allowing the operation to use its capacity more efficiently. Customer contact skills are not important in low-visibility operations, and unit costs should be low.

The four Vs and unit costs

All four dimensions (the four Vs) have significant implications for the cost of producing products or services. In summary, high volume, low variety, low variation in demand, and low visibility all help to keep operations processing costs low. In contrast, low volume, high variety, high variation in demand, and high customer contact usually generate higher costs for the operation.

For example, McDonald's restaurants epitomise high-volume burger production. Within this high- volume operation, the tasks carried out by McDonald's are systemised and repeated, and can be carried out using specialised fryers and ovens. The relatively narrow range of meals on the menu also reduces the level of variety in McDonald's output. All these factors help McDonald's keep its unit costs low.

5.4 Capacity planning

Various types of capacity plan may be used.

(a) **Level capacity plan:** Plan to maintain activity at a constant level over the planning period, and to ignore fluctuations in forecast demand. In a manufacturing operation, when demand is lower than capacity, the operation will produce goods for inventory. In a service operation, such as a hospital, restaurant or supermarket, management must accept that resources will be underused for some of the time, to ensure an adequate level of service during peak demand times. Queues will also be a feature of this approach.

(b) **Chase demand plan:** Aim to match capacity as closely as possible to the forecast fluctuations in demand. To achieve this aim, resources must be flexible. For example, staff numbers might have to be variable and staff might be required to work overtime or shifts. Variations in equipment levels might also be necessary, perhaps by means of short-term rental arrangements.

(c) **Demand management planning:** Reduce peak demand by switching it to the off-peak periods such as by offering off-peak prices.

(d) **Mixed plans:** Capacity planning involves a mixture of level capacity planning, chase demand planning and demand management planning.

Context example: Heathrow Airport

In 2017, London Heathrow Airport handled around 78 million passengers and 474,000 flights, compared to around 68 million passengers and 477,000 flights in 2008, and around 48 million passengers and 427,000 flights in 1996.

In terms of passenger numbers, 2017 was its busiest year ever recorded. However, Heathrow is operating at near-full capacity on its two runways, and it is currently the busiest two-runway airport in the world. The rise in passenger numbers in the last decade (2008–2017) has only been possible due to airlines' increased use of large jets, such as the Airbus 380 superjumbo.

Heathrow is an attractive 'hub' airport for airlines – stemming from the convenience and variety of its direct connections across the world, which allows airlines to match incoming passengers with outgoing flights to hundreds of different cities.

However, capacity constraints at Heathrow mean that it is unable to attract new flights, so other European hub airports with spare capacity – Paris, Frankfurt and Amsterdam – have been able to attract new flights to growth markets in China and South America. And in 2015, Dubai overtook Heathrow as the world's busiest airport for international travel, with capacity to increase passenger numbers even further.

Heathrow's extremely high capacity utilisation leads to increased delays, and lower resilience to deal with variations – such as bad weather or a plane having to turn back with engine trouble.

Consequently, delays and overcrowding mean that Heathrow often becomes a cause of frustration for passengers.

Issues around capacity have been central in the arguments to build a third runway at Heathrow, in order to increase the number of flights it can accommodate, and in order to preserve its status as a major hub airport.

In June 2018, the UK government approved a £14 billion plan to build a third runway at Heathrow as part of a major expansion to UK air traffic. However, allowing for legal challenges and delays, it is unlikely that any new runway capacity will be operational until around 2025–2030.

5.5 Capacity control

Capacity control involves reacting to actual demand and influences on actual capacity as they arise. IT/IS applications used in manufacturing operations include:

(a) **Materials requirements planning (MRP I)**: Converts estimates of demand into a materials requirements schedule.

(b) **Manufacturing resource planning (MRP II):** A computerised system for planning and monitoring all the resources of a manufacturing company: manufacturing, marketing, finance and engineering.

(c) **ERP software**: Encompasses a number of integrated modules designed to support all the key activities of an enterprise. This may comprise managing the key elements of the supply chain such as product planning, purchasing, stock control and customer service, including order tracking.

5.6 JIT systems

Definition

Just-in-time: An approach to planning and control based on the idea that goods or services should be produced only when they are ordered or needed. JIT production can also be called **lean production**.

The 'lean' approach aims to meet demand instantaneously, with perfect quality and no waste. In other words, the flow of products and services always matches exactly what customers want (in terms of quality, quantity, and timing) and at the lowest possible cost.

Crucially, the trigger for any activity in JIT (or 'lean') systems is the request of a customer; activity is 'pulled' by the customer, rather than 'pushed' by a supplier.

Three key elements in the **JIT philosophy**

Element	Comment
Elimination of waste	Waste is defined as any activity that does not add value. Examples of waste identified by Toyota were: • Overproduction, ie, producing more than was immediately needed by the next stage in the process. • Waiting time: Measured by labour efficiency and machine efficiency. • Transport: Moving items around a plant does not add value. Waste can be reduced by changing the layout of the factory floor so as to minimise the movement of materials. • Waste in the process: Some activities might be carried out only because there are design defects in the product, or because of poor maintenance work. • Inventory: Inventory is wasteful. The target should be to eliminate all inventory by tackling the things that cause it to build up. • Simplification of work: An employee does not necessarily add value by working. Simplifying work reduces waste in the system (the waste of motion) by eliminating unnecessary actions. • Defective goods are quality waste. This is a significant cause of waste in many operations.

Element	Comment
The involvement of all staff in the operation	JIT is a cultural issue, and its philosophy has to be embraced by everyone involved in the operation if it is to be applied successfully. Critics of JIT argue that management efforts to involve all staff can be patronising.
Continuous improvement (or 'kaizen')	The ideal target is to meet demand immediately with perfect quality and no waste. In practice, this ideal is never achieved. However, the JIT philosophy is that an organisation should work towards the ideal, and continuous improvement is both possible and necessary.

5.6.1 JIT purchasing

With JIT purchasing, an organisation establishes a close relationship with trusted suppliers, and develops an arrangement with the supplier for being able to purchase materials only when they are needed for production. The supplier is required to have a flexible production system capable of responding immediately to purchase orders from the organisation.

5.6.2 JIT and service operations

The JIT philosophy can be applied to service operations as well as to manufacturing operations. Whereas JIT in manufacturing seeks to eliminate inventories, JIT in service operations seeks to remove queues of customers.

Queues of customers are wasteful because:

- they waste customers' time
- queues require space for customers to wait in, and this space is not adding value
- queuing lowers the customer's perception of the quality of the service

The application of JIT to a service operation calls for the removal of task specialisation, so that the workforce can be used more flexibly and moved from one type of work to another, in response to demand and workflow requirements.

Context example: JIT in a postal service

A postal delivery has specific postmen or postwomen allocated to their own routes. However, there may be scenarios where, say, Route A is overloaded while Route B has a very light load of post.

Rather than have letters for Route A piling up at the sorting office, when the person responsible for Route B has finished delivering earlier, this person might help out on Route A.

Teamwork and flexibility are difficult to introduce into an organisation because people might be more comfortable with clearly delineated boundaries in terms of their responsibilities. However, the customer is usually not interested in the company organisation structure because he or she is more interested in receiving a timely service.

In practice, service organisations are likely to use a buffer operation to minimise customer queuing times. For example, a hairdresser will get an assistant to give the client a shampoo to reduce the impact of waiting for the stylist. Restaurants may have an area where guests could have a drink if no vacant tables are available immediately; such a facility may even encourage guests to plan in a few drinks before dinner, thereby increasing the restaurant's revenues.

5.7 Quality management

Definitions

Quality assurance: Focuses on the way a product or service is produced. Procedures and standards are devised with the aim of ensuring defects are eliminated (or at least minimised) during the development and production process.

Quality control: Concerned with checking and reviewing work that has been done. Quality control therefore has a narrower focus than quality assurance.

5.7.1 Cost of quality

The **cost of quality** may be looked at in a number of different ways. For example, some may say that producing higher-quality output will increase costs – as more costly resources are likely to be required to achieve a higher standard. Others may focus on the idea that poor-quality output will lead to customer dissatisfaction, which generates costs associated with complaint resolution and warranties.

The cost of quality can be analysed into four categories:

- **Prevention costs** – costs which are incurred to prevent the production of products that do not conform to specification being produced (eg, staff training; extra costs of acquiring higher quality raw materials).
- **Appraisal costs** – costs incurred in order to ensure that outputs produced meet required quality standards (eg, costs of inspection).
- **Cost of internal failure** – costs incurred as a result of outputs not meeting required quality standards, but where these deficiencies are identified before a product is transferred to the customer (eg, costs of repair and re-inspection; work stoppages caused by defects).
- **Cost of external failure** – costs resulting from products or services failing to meet requirements or to satisfy customer needs, but where these deficiencies are only identified after the products or services have been delivered to the customer (eg, costs of handling customer complaints; cost of repairing/replacing products returned from customers).

The demand for better quality has led to the acceptance of the view that quality management should aim to **prevent** defective production, rather than simply detect it, because it reduces costs in the long run.

Most modern approaches to quality have therefore tried to assure quality in the production process (quality assurance) rather than just inspecting goods or services after they have been produced.

5.7.2 TQM

TQM is a popular technique of **quality assurance**, and can be thought of as a philosophy for how to approach the organisation of **quality improvement** within an organisation. The main elements of TQM are:

(a) **Customer-centric approach**: Customers are the most important part of an organisation, and are vital to its success – or even its survival. The whole organisation needs to focus on meeting the needs and expectations of customers.

(b) **Internal customers and internal suppliers**: All parts of the organisation are involved in quality issues, and need to work together. Every person and every activity in the organisation affects the work done by others. The work done by an internal supplier for an internal customer will eventually affect the quality of the product or service to the external customer.

(c) **SLAs**: Some organisations formalise the internal supplier – internal customer concept by requiring each internal supplier to make an SLA with its internal customer, covering the terms and standard of service.

(d) **Quality culture within the firm**: Every person within an organisation has an impact on quality, and it is the responsibility of everyone to get quality right.

(e) **Empowerment:** Recognition that employees themselves are often the best source of information about how (or how not) to improve quality.

6 Evaluating functional strategies

Section overview

Once the corporate strategy has been agreed, a number of functional sub-strategies will need to be designed and implemented in support of these. For instance, a move towards differentiation via improved customer service levels may necessitate investment in IT improvements to support improved customer retention via a Relationship Marketing strategy.

6.1 Functional strategies

Definition

Functional strategies: Concerned with how the component parts of an organisation deliver effectively the corporate- and business-level strategies in terms of resources, processes and people.

(Johnson, Scholes and Whittington)

Much functional strategy is created by individual business functions and delivered by them.

Functional area	Comment
Marketing	Devising products and services, pricing, promoting and distributing them, in order to satisfy customer needs at a profit. Marketing and corporate strategies are interrelated.
Production	Factory location, manufacturing techniques, outsourcing and so on.
Finance	Ensuring that the firm has enough financial resources to fund its other strategies by identifying sources of finance and using them effectively.
HR manage-ment	Secure personnel of the right skills in the right quantity at the right time, and to ensure that they have the right skills and values to pro-mote the firm's overall goals.
ISs	A firm's ISs are becoming increasingly important, as an item of expenditure, as administrative support and as a tool for competitive strength. Not all IT applications are strategic, and the strategic value of IT will vary from case to case.
R&D	New products and techniques.

Interactive question 6: Levels of strategy

Ganymede Co is a company selling widgets. The finance director says: 'We plan to issue more shares to raise money for new plant capacity – we don't want loan finance – which will enable us to compete better in the vital and growing widget markets of Latin America. After all, we've promised the shareholders 5% profit growth this year, and trading is tough.'

Requirement

Identify the **corporate**, **business** and **functional** strategies in the above statement. See **Answer** at the end of this chapter.

6.2 Evaluating functional strategies in support of corporate strategy

A change of corporate strategy will inevitably require new functional strategies. For instance, we mentioned in section 3.1 that Marks & Spencer (M&S) implemented a number of strategic initiatives to help it address the challenges it has faced. In their attempts to modernise both the brand and product offerings, the senior management teams at M&S have identified at various times that changes were needed to the following areas of M&S's functions:

(a) **Marketing** – Celebrity endorsements were introduced, the promotional brand 'Your M&S' was introduced, and more recently, M&S has started to use social media (Instagram, Twitter) to try to develop its relationships with customers.

(b) **Procurement** – UK-based clothing suppliers (such as Baird Clothing) were replaced with cheaper overseas suppliers.

(c) However, despite using overseas suppliers, M&S's 'Plan A' initiative, launched in 2007, highlights the company's commitment to delivering sustainability through its supply chain – including a process to ensure that all its suppliers pay a fair, living wage to their workers.

(d) **Supply chain**. In the 2018 Annual Report, the CEO also noted M&S needs to improve its supply chain which is slow and inefficient. The company is investing in a new distribution centre (at Welham Green), as the first step towards delivering a single tier network of national distribution centres. This should reduce the number of stock holding points, and make store deliveries quicker, allowing M&S to reduce the amount of stock it holds (which is currently higher than the level competitors hold).

(e) **R&D** – George Davis, the man behind the successful 'George' brand at Asda, was recruited to launch the Per Una brand (in 2001).

(f) **IS/IT** – In January 2009, M&S signed a deal with IBM to implement SAP retail applications aimed at providing improved inventory visibility and data management.

(g) Perhaps more importantly, the role of technology at M&S has been changing as the company has embraced the idea of becoming a multi-channel retailer.

(h) It is not possible to operate in a multi-channel environment without a strong IT function. 'Browse & Order' in-store terminals allow customers to browse M&S's entire online range, while M&S provides iPads for its customer assistants to demonstrate its full range of products to customers, as well as checking size and availability.

(i) IS/IT also help to support M&S's marketing activity; in particular gathering data about customer buying behaviour in order to target marketing and promotions more effectively, and to develop stronger relationships with customers.

(J) Equally, however, as the CEO noted in the 2018 Annual Report, the company's digital capability is lagging behind the best in the market, despite M&S's aim to become a truly digital business. The operational initiatives which the CEO highlighted in the report – for example, improving the speed and navigation of the M&S website – are likely to be very important in helping the company achieve this aim.

7 Business Plans

Section overview

A convincing and thorough business plan will be essential for any company looking to raise additional finance. Whether it be a loan for a new business start-up, or funds for expansion, the lender will want to be assured that their investment is in good hands.

7.1 Contents of a business plan

A business plan is the foundation on which a funding application will be made. Although there is no universal proforma, the table below indicates the type of content that a lender would expect to be presented with for review.

Section	Contents
Statutory data	Company name and number, address and other contact details.
Executive summary	An outline of the business alongside a summary of the costs and revenues projections for the proposed investment.
Marketing	Detailed summary of the market research findings. This should include the market size, entry methods, projected market share, competitor profiles, competitive advantage to be levered and proposed pricing and marketing ploys.
Product/ service details	A detailed analysis of the products/services to be delivered. This should also cover the supply chain and distribution channels.
Management team	The trading and educational background of the directors and senior management team.
Plant and equipment	Summary of fixed assets to be deployed.
Start-up costs	Analysis of start-up costs and how they are to be financed.
Business plan	Summary of cashflow forecasts, alongside a commentary outlining the assumptions made, plus sensitivity analysis to key risks such as sales volumes and prices.
Summary	A narrative detailing why the investment will succeed.
Appendices	Tables, spreadsheets or graphs providing detailed financial fore-casts.

7.2 Constructing the business plan

The starting point for constructing the plan will be to project forward the current financial statements.In doing so, the lender's major interest will be in cash generation, as it will be the ability to generate cash to repay the loan that will ultimately determine whether an offer to provide finance is made.

Therefore, it is important that the logic behind a cashflow forecast can be demonstrated. The potential cashflows to be included would be:

Cash inflows

- cash sales
- cash from receivables
- interest receipts
- new finance issues

Cash outflows

- payments to payables
- capital expenditure
- loan repayments
- interest payments
- tax payments
- dividend payments

It will also be expected that the borrower can reconcile these projections to the current and projected financial forecasts, ie, you must be able to show how the forecast profit and cashflows reconcile. As you will be aware from your Financial Reporting studies, these differences arise from:

(a) **Timing differences** – A sale or purchase is recorded in the financial statements when they are made, as opposed to when the cash is physically paid or received.

(b) **Non-cash movements** – Accounting adjustments such as depreciation, amortisation and movements in provisions will not appear in a cashflow forecast.

7.3 Critiquing the business plan

If a business plan is being used to start a new enterprise, the decision of the financier will rest in part on the credibility of the plans they are presented with. As such, it will be essential that the proprietor reviews their plan to ensure that they are able to present a compelling, but realistic, case for finance. The questions that the proprietor should ask will include:

- **Are the sales and revenue forecasts reasonable/achievable**? This could be assessed against external estimates of market growth, but also need to be considered in conjunction with an organisation's capacity, and consideration of any limiting factors.
- **Are the costs understated**? Over time, costs will rise due to inflationary pressures. The headline government measure of inflation may be misleading, therefore the specific rates of inflation relevant to the raw materials used, or labour hired, should be used instead. Do costs accurately reflect new initiatives (eg, expansion plans)?
- **Are market share projections realistic**? This could be assessed against external market research data.

7.3.1 Assurance over prospective financial information

By definition, business plans represent prospective financial information.

Reporting on prospective financial information is covered by ISAE 3400, *The Examination of Prospective Financial Information*, and this Standard provides the following definition of the information:

'Prospective financial information' means financial information based on assumptions about events that may occur in the future, and possible actions by an entity. It is highly subjective in nature and its preparation requires the exercise of considerable judgement.

Prospective financial information can be of two types (or a combination of both):

A forecast	Prospective financial information based on assumptions as to future events which management expects to take place and the actions management expects to take (best-estimate assumptions).
A projection	Prospective financial information based on hypothetical assumptions about future events and management actions, or a mixture of best-estimate and hypothetical assumptions.

ISAE 3400 also reminds us that prospective financial information can be prepared:

- as an internal management tool, for example, to assist in evaluating a possible capital investment
- for third parties, for example, as a prospectus to provide potential investors with information about future expectations, or as a document to provide potential lenders with information about cash flow forecasts

In the context of business plans, any potential investor is likely to want prospective financial information which is understandable, relevant, reliable and comparable – so that they can evaluate whether or not to invest in the business under review. We could argue that prospective financial information is actually of more interest to users of accounts than historical information.

That said, and as the ISAE definition identifies, **prospective** financial **information is highly subjective in nature**, and a significant amount of judgement has to be exercised in its preparation.

Therefore, auditors do not produce a statutory report on prospective information in the way that they do on historical information. They can still provide an alternative service, in the form of a review or assurance engagement, but they can only provide **limited assurance** when reviewing prospective financial information.

ISAE 3400 suggests that the auditor expresses an opinion including:

- a statement of negative assurance as to whether the assumptions provide a reasonable basis for the prospective financial information
- an opinion as to whether the prospective financial information is properly prepared on the basis of the assumptions and the relevant reporting framework
- appropriate caveats as to the achievability of the forecasts

Assurance procedures for assessing prospective financial information

ISAE 3400 states that the procedures the auditor carries out should be designed to obtain sufficient evidence as to whether:

- management's best-estimate assumptions, on which the prospective financial information is based, are not unreasonable, and, in the case of hypothetical assumptions, such assumptions are consistent with the purpose of the information;
- the prospective financial information is properly prepared on the basis of the assumptions;

- the prospective financial information is properly presented and all material assumptions are adequately disclosed, including a clear indication as to whether they are best-estimate assumptions or hypothetical assumptions; and
- the prospective financial information is prepared on a consistent basis with historical financial statements, using appropriate accounting principles.

ISAE 3400 identifies that the key issues that projections relate to are profit, capital expenditure and cash flows. In this context, it suggests the auditor should undertake procedures to:

- verify projected income figures to suitable evidence (for example, by reviewing the company's proposed prices against prices charged by competitors);
- verify project expenditure figures to suitable evidence (for example, by reviewing quotations provided to the organisation, or by reviewing current bills for existing services);
- check capital expenditure for reasonableness (for example, if the proposal relates to new premises, the cost of purchasing these should be reviewed against prevailing market rates); and
- review cash forecasts to ensure the timings are reasonable, and the cash forecast is consistent with any profit forecasts (ie, income/expenditure should be the same, just at different times).

7.3.2 Accepting an engagement to examine prospective financial information

As well as identifying the procedures which an auditor should undertake in an engagement to examine prospective financial information, ISAE 3400 identifies that there are a number of factors an auditor should consider before accepting the engagement. These include understanding:

- the intended use of the information
- whether the information will be for general or limited distribution
- the nature of the assumptions used in the information: whether they are best-estimate or hypothetical
- the elements to be included in the information
- the period covered by the information

Importantly, ISAE 3400 warns that 'the auditor should not accept, or should withdraw from, an engagement when the assumptions are clearly unrealistic or when the auditor believes that the prospective financial information will be inappropriate for its intended use'.

Summary

Making an acquisition could enable an organisation to enter a market or increase market share more quickly than if it grew organically, but there are also considerable risks involved in making an acquisition, particularly in relation to acquiring a foreign company. This again highlights the importance of due diligence in the acquisition process.

As environmental conditions are becoming more complex and dynamic, organisational structures are also becoming less rigid. However, the structures, processes and relationships within an organisation still have to work effectively if the organisation is to be successful.

Although there are a number of different structures an organisation can take (eg, functional, matrix), there is no single 'best' structure; the most appropriate for an organisation is likely to depend on its situation.

Change is often an integral part of the strategic management process: analysis of its current position may have identified the need for change, but the successful implementation of a new strategy is also likely to involve change management within an organisation.

The way in which change is managed will depend on the extent of the change and the speed with which it is required (eg, evolution or revolution).

As force field analysis highlights, a key part of the change process is weakening the restraining forces that are resisting change and strengthening the driving forces that are promoting change.

Cost reduction is becoming increasingly important for businesses in an increasingly competitive environment (eg, activities may be outsourced to reduce costs).

However, cost reduction also needs to be viewed in relation to value creation – cutting activities which add value for customers will be counter-productive for a business, particularly in the longer term.

Effective supply chain management is becoming increasingly important in ensuring that customer requirements are satisfied adequately. However, at the heart of supply chain management there is a balancing act between the need for responsiveness and the need for efficiency.

Traditionally, supply chains have been based on a 'push' model, but many companies have now switched to a demand-driven, customer-driven 'pull' model. JIT production is a demand 'pull' system.

Change and dynamism in the business environment has a significant impact on operations management within organisations, and the objectives of organisations' operations (quality, speed, dependability, flexibility, cost) need to be aligned to the organisation's overall strategy to contribute to its competitive advantage.

In many cases, an organisation may need to raise additional finance to achieve growth. Potential investors are likely to scrutinise an organisation's business plan before making a decision about whether to invest or not.

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you areadvised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the benefits and risks of acquisitions? (Topic 1)
2.	What factors should be considered when choosing an appropriate organisationalstructure? (Topic 2)
3.	How can management overcome resistance to change in an organisation? (Topic 3)
4.	What are the drivers of supply chain performance? (Topic 4)
5.	How can outsourcing benefit an organisation? (Topic 4)
6.	What are the benefits of JIT systems? (Topic 5)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions areparticularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
1 Mack Co	This question looks at the due diligence surrounding a proposed acquisition. Assurance represents 10% of the syllabus and will appear on all papers so it is important to practise the different ways it can be tested.
2 Chemico	The three requirements in this question cover a broad range of issues, just as exam questions will. Part (a) requires an assessment of stakeholder reactions, part (b) concentrates on the issues to consider when entering a strategic alliance and part (c) looks at the change management issues arising from an acquisition. Avoid using generic, syllabus knowledge and instead ensure you apply your answer to the scenario.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the nextchapter.

Technical reference

1 ISAE 3402, *Assurance Reports on Controls at a Service Organisation*

- A global assurance standard for reporting on the controls at service organisations.

2 ISAE 3400, *The Examination of Prospective Financial Information*

- To establish standards and provide guidance on engagements to examine and report on prospective financial statements, including examination procedures for best-estimate andhypothetical assumptions.

3 Supply chain management and operations management texts

Although this Workbook is designed to provide you with comprehensive coverage of the material you need for your SBM&L exam, if you wish to undertake further reading around the supply chain management and operations management topics discussed in this chapter, we recommend the following texts:

Chopra, S., & Meindl, P., (2016) *Supply Chain Management*, 6th edition, Harlow: Pearson.

Slack, N., Brandon-Jones, A. & Johnston, R., (2016) *Operations Management*, 8th edition, Harlow: Pearson.

Slack, N., & Lewis, M. (2017) *Operations Strategy*, 5th edition, Harlow: Pearson.

Self-test questions

Answer the following questions.

1 Mack Co

Mack Co is the parent company of a group of manufacturing companies, which has been expanding in recent years. The group's main business activity is the manufacture of engine parts.

Six months ago, the group completed the acquisition of Roma Co, and the group is currently considering the acquisition of Gimi Co. Gimi Co is a relatively large company, which would increase the group's operating facilities by around 40%.

Mack Co's finance director is trying to persuade the other directors that an externally provided due diligence investigation of Gimi Co should be carried out, before any investment decision is made. However, the other directors feel this is not needed because they already have the most recent financial statements of Gimi Co, which have already been audited, and copies of Gimi Co's latest financial forecasts. In addition, Gimi Co's directors have provided verbal assurances that there are no outstanding legal claims against the company.

Requirement

Discuss the purpose, and evaluate the benefits, of a due diligence investigation to Mack Co in relation to the proposed purchase of Gimi Co.

2 Chemico

Chemico is a chemical engineering company, based in an Eastern European country. It is the largest and most important employer in the region, which is a relatively poor area with only one small town in reasonable commuting distance.

Chemico's main shareholders are international financial institutions, who have also provided finances in the form of loans.

At the moment, the company is performing well. Annual sales and profits have been increasing, the share price is strong, and the company has a number of large orders on its order book. It also has a favourable reputation among customers, which include some major household names.

However, Chemico's directors realise that the company's profitability is likely to diminish in the longer term, because new engineering technologies are being developed that will reduce (although not eliminate) the demand for their products.

The directors have been considering the option to diversify by developing a new product, using the same basic engineering and chemical processes as the existing products. However, this new product can present higher risks of toxic incident, and environmental campaigners have written to the local authorities highlighting the inherent risks involved in developing the new product.

Chemico's directors are also aware that one of its competitors is developing a similar new product. Initial scientific research has concluded that Chemico's new product is generally more effective than its rival's in terms of the process it was designed for. However, the rival product doesn't pose any toxic risk.

Chemico's directors are currently considering the possibility of entering a strategic alliance with the competitor for the joint development of the new product.

Chemico is also considering a move into manufacturing specialist plastics. The plastics manufacturing business is one of the major users of Chemico's current products. However, Chemico would need to develop completely new manufacturing processes for it to be able to make the plastics in-house.

The directors feel the investment required could be justified because there is strong growth in Western Europe for the plastics, and the margins earned would be much higher than on their current products. However, initial investigations have also shown that Chemico could enter the market by buying a small local plastics company from the current owner who wishes to retire.

Requirements

2.1 Assume Chemico decides to pursue the first proposal and develop the new chemical product itself. Discuss the main stakeholders' likely reactions to that proposal, and the degree to which they are likely to resist the proposal.

2.2 Evaluate the issues which Chemico's directors should consider with respect to entering a strategic alliance with the competitor for the joint development of the new product.

2.3 Discuss the change implementation issues that are likely to arise if Chemico decides to acquire the plastics company.

3 GetInsure

The insurance industry is characterised by large organisations producing, packaging and cross- selling a number of different 'products' to their client base. Typical products include life insurance, health insurance, house insurance and house contents insurance. Therefore, cost efficiency, repeat business and database manipulation are of significant importance.

GetInsure is a medium-sized insurance company that has grown over the past 50 years by a number of relatively small mergers and acquisitions. Its business is focused on life, automobile and private property insurance. Over the last few years, the insurance industry has undergone significant change with increasing consolidation and the squeezing of margins.

The board of GetInsure recognises that it is quite old-fashioned in its approach to business, particularly in its attitude to IT. Much of the computing is done on personal computers, many of which are not networked, using a variety of 'user written' programs. There are a number of different computer systems in the organisation that have been inherited from the companies that have been acquired in the past. However, these computer systems have not been fully consolidated. It is recognised that this lack of compatibility is causing efficiency problems.

GetInsure has recently been approached by Insura, an insurance company of a similar size, with a view to a merger. Although GetInsure has never combined with an organisation of this size before, the board recognises that this merger could present an opportunity to develop into a company of significant size but that this may also present further problems of system incompatibility.

GetInsure has decided to proceed with the merger, but the board recognises that this might only make the situation worse with regards to the information management strategy of the resulting combined company.

The finance director has asked you, as project accountant, to investigate the potential of outsourcing the IT function as part of the post-merger consolidation process.

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Requirement

Discuss the advantages and disadvantages of outsourcing the IT function for the merged organisation at each of the strategic, tactical and operational levels of the organisation.

4 Slick Fashions

Slick Fashions ('Slick') is a company based in Russia but with a listing on the London Stock Exchange. It produces the internationally successful 'Slick' and 'Slick Force' brands of fashion clothes. The company has acquired a global reputation for good-quality, well-designed and reasonably priced fashion clothing. The Slick brand is used for fashion clothes for men and women, and the Slick Force brand is for fashion clothes for a younger age group (late teenage and early 20s).

The company was established in 1921 as a family business, and the founding family developed Slick into the successful brand that it has now become. The company was sold in 2006 to a Russian billionaire investor, who then sold the majority of his shares when the company acquired its UK stock market listing in 2008. The corporate head office was transferred to Moscow in 2007.

Like other fashion clothing companies, Slick must continually design and produce new clothes for the fashion market. During the course of one year, the company produces over 15,000 new fashion designs, and it has a large in-house team of fashion designers. The company's top designers, who are based in Paris and Moscow, have an international reputation.

The company's products are sold mainly through stores. Some of these ('retail stores') are managed by Slick itself and sell only goods that have the Slick or Slick Force brand. Other sales are made

through larger department stores, in which Slick is given space for selling its products. Currently, Slick operates about 800 of its own retail stores, and this number is increasing each year. In addition, it sells through about 7,000 department stores, although this figure is declining each year.

Most of the stores are in Western Europe, particularly the countries of the Eurozone. Some stores in Russia sell Slick goods, but sales to Russia currently account for less than 10% of sales. There are also some stores in Hong Kong, Japan and the east coast of the US. Slick has also established 'e-shops' in two countries for online selling.

Although all clothing products are designed by the company's own staff, most manufacturing is outsourced to small manufacturing companies. Virtually all these manufacturers are located in Russia or Malaysia. The company's policy of relying on large numbers of small suppliers has been successful in the past, but more recently there have been disagreements with a number of suppliers who have been demanding higher prices for their work due to increases in their own costs. The rising prices of cotton and fuel in particular have been a cause of concern for manufacturers.

The company also has its own manufacturing subsidiary, located near Moscow, but this produces less than 5% of the company's total annual requirements by volume.

Slick's strong reputation in the market has been built largely on the success of its fashion designs. The company displays its fashions regularly at the major fashion fairs around the world, and its design team members are continually searching for new fashion ideas. Most fashion products are designed in advance of each season, and there are four fashion seasons each year. Orders are placed with manufacturers and the manufactured items are delivered to a central distribution centre that the company operates near Moscow. Goods are either sent to department stores direct from Moscow, or to a subsidiary distribution centre in France, from where they are sent to Slick's own stores and department stores in the Eurozone. However, many department stores reduced their pre- orders of items in 2012, and placed additional (supplementary) orders with Slick later in the fashion season, when they knew what items were selling well and which were not.

Slick's design team has been experimenting with a new JIT system of purchasing and production for some of its fashion items. With this system, only limited quantities of products are manufactured for the start of each season. Members of the sales team in each region check the strength of demand for each product and inform Slick's Head Office in Moscow of which products are selling well and which are selling badly. Orders for additional quantities of the popular items are then placed with manufacturers, and distributed as quickly as possible to meet the sales demand.

Experiments with this JIT purchasing/manufacturing system have been only partially successful, due to the long lead time between placing orders with small manufacturers and getting delivery into the distribution centre near Paris.

Slick has three main competitors in its main, Western European markets. These are TCZ, QM and BTN. TCZ's success has been built on a rapid product development cycle and a fast production cycle. It uses a large number of small manufacturers in the same area of Spain, where TCZ has a large and modern distribution centre. QM has also been highly successful in the European fashion market. By contrast, BTN has been less successful than these other two rivals, but is trying to recover lost ground through an expensive advertising campaign and refurbishment of many of its stores. BTN's turnover has doubled in the past 10 years, whereas the turnover at Slick has risen threefold; QM has increased fourfold; and TCZ, by 6 times.

BTN's problem, which is also one facing Slick, is that in the large European market, companies which have a relatively slow design and distribution system are unable to meet the demand from consumers for fast, cheap copies of the latest popular fashions. BTN is an Italian company and, at the moment, almost half its sales are in Italy. However, it is developing a strategy for further expansion into Asia, and in particular India, where its brand name is still very strong.

Requirements

4.1 Analyse the supply chain in which Slick operates and identify any current weaknesses in it.

4.2 In terms of Porter's Five Forces model, discuss the strength of competition in the segment of the fashion industry in which Slick operates.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

The shareholders will be assured by the following forms of diligence:

- review of financial statements for accuracy
- specialist reports on the size of Beta's proven reserves
- actuarial calculations on the state of Beta's pension fund and any shortfalls
- an assessment of the value and condition of Beta's assets such as oil rigs and drills
- a review of any exploration rights that Beta has acquired and whether these can be transferred upon a take over to Alpha
- an assessment of Beta's legal status: Are there any active legal claims, and the likelihood and impact of losing these
- an environmental audit (think: BP and the Deepwater Horizon explosion)

Answer to Interactive question 2

2.1 Organic growth

Advantages

Low risk – Organic growth is generally considered to involve less risk than making an acquisition, and JKL's past experience of its failed acquisition illustrates the risk involved in growing externally.

Expanding through organic growth means that JKL can exploit its own strengths while maintaining its existing **style of management** and **corporate culture**. Also, JKL will not face problems of having to integrate operating systems between different companies.

Growth in stages – JKL is a small company and so may only have limited resources. Organic growth is likely to be less onerous on its cash flow than making an acquisition. Organic growth can be managed gradually or in stages, whereas to make an acquisition JKL is likely to have to commit a large amount of funds in one go.

Disadvantages

Speed of growth – It is likely to take longer for a firm to grow organically, than if it acquires another firm. Organic growth is often achieved by a company reinvesting its profits into its growth. However, this means the speed of growth will be restricted by the level of profits available for reinvestment, and this could be a particular issue for JKL as it is still a small company.

Nature of growth – Organic growth is most suited to situations where a company is growing gradually, and using its existing markets. However, in this case, JKL is looking to break into a new market – in a foreign country (France) – and this represents a more significant change in JKL's strategy.

Access – As France is a new market for JKL, it is likely to lack the access to key suppliers and customers that established competitors will already have there. Moreover, none of JKL's staff speak fluent French, which could make it harder to establish contacts in the country.

2.2 Acquisition

In many ways, the advantages and disadvantages of making an acquisition can be seen as a mirror image of those for organic growth:

Advantages

Speed of growth – Making an acquisition would allow JKL to enter a new market (France) much more quickly than by growing organically. It may even allow JKL to gain access to a market that would otherwise be unattainable (given the absence of any customer contracts, and weak linguistic skills).

Acquiring skills – XYZ has a very good reputation in France, and acquisition will offer JKL the opportunity to widen its skill set. One of the criticisms of acquisitions is often that they benefit the company being acquired more than the company making the acquisition. However, in this case, XYZ's reputation and skill set look like it could be valuable for JKL to acquire.

Disadvantages

Risk – Acquisitions are likely to involve greater risk than organic growth, in particular with respect to the way the post-acquisition integration is managed.

Post-integration issues – JKL's experience has highlighted the potential problems involved in trying to integrate different cultures and systems. There could be clashes if the culture and management style of the acquired company is different to the acquiring one, and the likelihood of this happening could be increased by the fact that the company being acquired is in a foreign country. Post-integration problems could mean that the anticipated benefits of the acquisition are not actually realised.

Answer to Interactive question 3

Existing structure

The current organisation structure is divisional with the divisions based on type of product. With the decision to close down the sports car division and the necessity to increase profits, a revision of the structure is necessary.

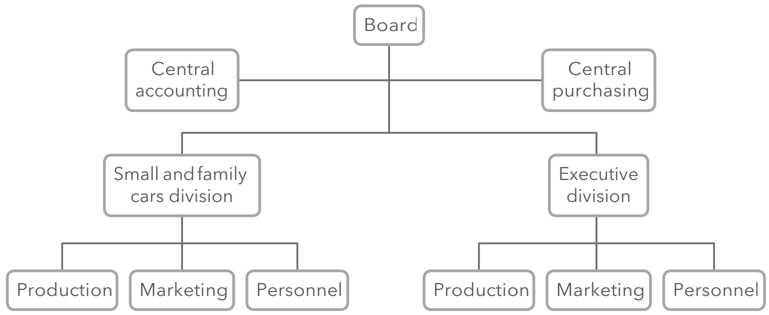
Proposed structure

It is proposed that the existing divisional structure be maintained with two divisions – small and family cars, and executive cars. There are two reasons for this.

(1) **Geography** – The two divisions are based in Luton and Newcastle, making control more difficult if a functional structure were to be adopted (eg, production under the control of one manager).

(2) **Product type** – The products, although similar in some ways (ie, cars), are sold in different markets requiring different skills in, for example, marketing and production.

The proposed structure is shown below.



All purchasing and accounting functions are provided centrally, rather than having a repetition of functions within each division. The reasons for this are that the same suppliers are used by both divisions for components and both divisions have the same accounting systems. This should reduce costs.

Each division has its own personnel function so that it does not seem too remote from employees, which would be the case if, for example, a central personnel function were established in Luton or Newcastle.

Answer to Interactive question 4

4.1 Forces for and against change Forces for change

The forces for change in Timbermate appear to be both external and internal.

External factors would include:

- **Overseas competitors** – Current suppliers may be able to undercut Timbermate if they set up their own operations in the UK. It will be essential for them to bring down their own cost base to survive.
- **Exchange rates** – Weakening sterling will make imports more expensive, putting up Timbermate's costs still further.
- **Growth in plastic alternatives** may reduce demand in a number of key areas. Unless they can fight back, share will be lost, reducing economies of scale and brand strength.

Internal factors would include:

- **Leadership** – Brian Parsons' determination to make the changes needed.
- **Customers** – Increasing dissatisfaction with the current standard of service has already given rise to complaint and may, if not addressed, lead to loss of current customers and brand image.
- **Shareholders** – A period of poor results cannot have been satisfactory for the shareholders which is presumably why they have appointed Parsons.

Forces against change

- **Attitude of managers** – The managers lack a sense of urgency and are therefore likely to resist any major change programme as unnecessarily disruptive.
- **Attitude of staff** – It is likely that the laid-back culture permeates the whole organisation and staff may not understand the need for change. They will undoubtedly also be fearful for their jobs.

- **Unions** – Unions have already expressed their intention to resist any changes to wages or working conditions. This could lead to walk-outs and strikes.

4.2 Managing change

A useful method of managing change was proposed by Lewin. This divides the process of change into three stages, **unfreezing**, **changing** and **refreezing**.

Unfreezing

The forces for change must be used to encourage the change, and the forces against it must be weakened. Methods might include:

- Carrying out a PEST analysis to identify the exact nature of the threats from the outside environment (issues such as deforestation may also have a potential impact and may have been overlooked).
- These issues and their consequences should then be stressed to the managers. Forecasts of market performance (and its impact on bonuses) if no change is made should be communicated. Workshops to involve senior managers in the process may help them to appreciate the urgency of the situation.
- Consultation and negotiation with the unions will have to be entered into. They will need to be persuaded of the importance of change now to protect jobs in the future.

Change

The new information system must be introduced. Training in all aspects will be required – not just in how to use the system, but also in its potential benefits, so that staff start to identify ways in which it could further improve business.

- New working practices will need to be introduced. Some processes may need re-engineering.
- Greater collaboration between different divisions needs to be encouraged.
- Efforts must be made to change the culture of the organisation. Stories about problems being caused by economic cycles that can be ignored, rituals such as leaving work on the dot, and an organisation structure so rigid that there is little or no horizontal communication suggests a 'jobs worth' paradigm where bureaucracy has taken on all its worst characteristics. While education may start the process, it may be necessary to remove those managers who are unwilling or unable to change.

Refreezing

This is the process of trying to ensure that planned changes become the norm.

- Reward systems should be developed to focus on issues such as cost management, customer satisfaction, productivity and innovation.
- Continual training – The staff should be given regular training updates to deepen their understanding of the new system.
- Communication – Interdivisional meetings should be scheduled on a monthly basis. The agenda should be collaborative problem solving and sharing of best practice. It may be that major customers should be provided with a single point of contact, who will then liaise with all divisions on their behalf (a matrix structure within the divisional one).

Answer to Interactive question 5

5.1 The nature of BPR and its application to AB Ltd

A process is 'a collection of activities that takes one or more types of input and creates output that is of value to the customer'.

Part of this process is the manufacture of goods, and so is relevant to AB Ltd. However, a process is more than just manufacturing – it involves the ordering and delivery of goods to the customer. Arguably, AB Ltd does not need to manufacture. All aspects of the process, from ordering to delivery, must be considered.

Key features of BPR and how these can be implemented

(1) Focus on the outcome, not the task.

(2) Ignore the current way of doing business. For example, AB Ltd may be divided into departments. The current organisation structure is not relevant to the process. Indeed, having a large number of departments may make the process harder to manage, as it is split between several different responsibilities. The same customer's order may be passed from department to department.

(3) Carefully determine how to use technology. IT has often been used to automate existing processes rather than redesign new ones. This means that AB Ltd must have an information strategy for the company as a whole.

(4) Review job design. Scientific management splits jobs into their smallest components. BPR suggests that, in some cases, enlarged jobs are more efficient if they lead to fewer people being involved in the process.

(5) Do the work where it makes most sense. This might affect where sales order processing and credit controls are carried out.

(6) Work must be done in logical sequence. This can affect factory layout but also the sequence of clerical activities.

(7) Those who perform the process should manage it. The distinction between managers and workers should be eroded; decision aids such as expert systems should be provided.

(8) Information provision should be included in the work that produces it.

(9) The customer should have a single point of contact in the organisation.

In effect, BPR requires the asking of the fundamental question: 'If we were starting from scratch, what would we do?'

5.2 Pitfalls

(1) BPR is an all or nothing proposition. It is thus expensive and risky, requiring major expenditure on consultancy, investment in IT systems and disruption. It is not worth doing unless there is a good reason.

(2) AB Ltd is concerned about overseas competition. There may be other competitive responses more appropriate than BPR, such as improving quality, outsourcing, a focus strategy or a differentiation strategy.

(3) Implementation is difficult, as organisations fail to think through what they are trying to achieve, and the process becomes captured by departmental interest groups. In AB Ltd, the production director, sales director and finance director may well conflict. The customer may deal with all three of them.

(4) Managers take a departmental view, rather than the view of the business as a whole.

(5) BPR becomes associated only with across the board cost cutting rather than a fundamental re-evaluation of the business. Managers will fight very hard to avoid any threats to their position.

(6) Management consultants responsible for the ideas often fail to come up with realistic strategies for implementation. Managers are thus left with a BPR formula that they may not fully understand and have to implement it in a hostile work environment.

Answer to Interactive question 6

The corporate objective is profit growth. The corporate strategy is the decision that this will be achieved by entering new markets, rather than producing new products. The business strategy suggests that those markets include Latin America. The operational or functional strategy involves the decision to invest in new plant (the production function) which is to be financed by shares rather than loans (the finance function).

Answers to Self-test questions

1 Mack Co

In a due diligence engagement, a professional advisor is engaged by a company making an investment, typically an acquisition, to perform an assessment of the material risks associated with the transaction, and to ensure the company has all the necessary facts before making a decision about whether to proceed with the transaction. Thus, due diligence minimises the risk of making the wrong investment decision.

Purpose and benefits of a due diligence investigation Information collecting

A due diligence investigation will gather information on the target company (Gimi Co) regarding:

- details of business operations
- financial performance
- financial position (for example any hidden covenants or contingent liabilities)
- legal issues
- tax situation

Armed with this information, Mack Co can make an informed decision about whether to proceed with the acquisition. Any potential problems should be uncovered before the company is acquired, and the risk of unpleasant surprises after the purchase is minimised. For example, although Gimi Co has provided copies of its latest financial forecasts, it is not clear what assumptions these have been based on. If the forecasts are based on unrealistic assumptions, then the company's post-acquisition performance will be worse than that implied by the forecast.

Verification of specific written representations

Due diligence work should corroborate the verbal representations made by the vendor to the potential acquirer. Although Gimi Co's directors have stated that the company has no legal claims against it, due diligence work would be able to verify this kind of representation giving confidence to the potential acquirer.

Identification of assets and liabilities

A due diligence investigation will ensure that all Gimi Co's assets and liabilities are identified. It is particularly important to identify any contingent liabilities, and understand the potential cost to the acquirer if the liability crystallises. This work can be complex and so it may be advisable for Mack Co to use the expertise of an external due diligence provider.

Operational risk

A due diligence investigation will identify operational risks within Gimi Co which are not apparent from examining financial information alone. For example, the patent of a key engine part manufactured by Gimi Co may be about to expire, or a key customer may wish to renegotiate terms. Identifying issues such as this could mean that Mack Co decides the acquisition of Gimi Co is too risky, given its size in relation to the group as a whole. Alternatively, this new information could offer a useful bargaining tool in negotiating the consideration which Mack Co has to pay to Gimi Co.

Acquisition planning

Post-acquisition strategy will also be assessed during a due diligence investigation. Potential economies of scale and operational synergies will be highlighted to Mack Co, along with the costs of any necessary re-organisation. The due diligence report may be able to advise Mack Co how best to integrate Gimi Co into the existing group.

It is also worth noting that, as Mack Co has only just completed the acquisition of Roma Co, the group may find it difficult to integrate Gimi Co as it is already undergoing a period of change. Again, Gimi Co's size relative to the group as a whole will exacerbate the potential difficulties in this respect.

Additionally, it may be difficult to secure funding for the acquisition so soon after the payment for Roma Co has been made, and the group should examine its liquidity before deciding to proceed.

Management time

It might be possible for due diligence to be performed by Mack Co's directors (rather than engaging an external practitioner). Although this can be cheaper for Mack Co, it has several drawbacks, the main one being that due diligence can be incredibly time-consuming for the directors, leaving them little time to carry out their day-to-day activities.

Credibility

A third party review will add to the credibility of the investment decision to be made by in Mack Co and give shareholders some comfort over the consideration paid. Again, this would appear to be particularly important in this case, because Gimi Co's relative size suggests that the consideration will be substantial for Mack Co.

2 Chemico

2.1 Shareholders

Profitability – The shareholders will be keen that the **profitability** of the company is maintained because this will affect the return on their investments. Consequently, if developing the new product helps sustain profits, they would be expected to support the proposal rather than resist it.

We do not know whether the shareholders are aware of the **alternative proposals** Chemico's directors have been considering (the alliance and the acquisition). If they are, and they think one of them would serve Chemico better commercially, then they may resist this first proposal in favour of one of these alternatives.

Risk of environmental pollution – As well as short-term profitability, the shareholders are likely to consider the longer-term growth of their shares. In this respect, they may feel that the opportunities for enhancing the overall value of their investments would be jeopardised by the risk of toxic accidents.

Moreover, some of the larger institutional investors may decide they do not want to be associated with Chemico if its **corporate social responsibility** policies are called into question.

The wider issue here is that Chemico must not be seen to be **sacrificing safety in the search for profits.**

Employees

Saving jobs – Given the lack of alternative employment opportunities in the region, keeping their jobs at the factory is crucial for the workers. So, from this perspective, the employees will support a change that seeks to preserve their jobs.

Health risks – However, avoiding health risks is also important to the workers. So, the increased risk of toxic incidents attached to the new product will be a concern to them.

There is also a secondary issue here. We have assumed that the workers know about the health risks attached to the new product (because they have been highlighted by environmental campaigners). However, the directors may have convinced the workers that the risks are low, so that they are even less likely to resist the proposal.

Either way, the economic need to preserve their jobs is likely to mean that the workers are unlikely to resist the proposals.

Local residents

Conflicting interests – The local residents are likely to have the same dual interests as the staff. On the one hand, the community benefits from the **presence of a large employer** in the region (for example, people have more money to spend at local stores). If the proposal does not go ahead, redundancies are likely, and this could have a knock-on effect throughout the rest of the regional economy (via the multiplier effect).

However, as with the employees, the local residents will not welcome the introduction of a process which could potentially spill out **toxic waste**.

The residents are probably more likely to resist the proposal than the workers, but it is debatable how much power residents alone could have to stop development.

Environmental campaigners

Environmental issues – The environmental campaigners will strongly oppose the proposals, because of the potential risk of toxic incident they present. The campaigners will be more concerned with the environmental costs of the proposal rather than the economic arguments for it.

Moreover, the campaigners have shown themselves to be **active in resisting the proposal**, and have already written to the local authorities. In terms of a force field analysis, the campaigners are likely to be the strongest resisting force acting against the proposal.

Regional government

Divided interests – Like the residents, the local authorities may also have split interests about the proposal.

On the one hand, they will want to **support Chemico as the largest employer** in the region, and they will want to keep income and jobs in the region. In this context, if they resist the proposal, this could also discourage other potential investors who might have been looking to invest in the area.

However, on the other hand, the authorities will be aware of the **potential environmental risks** of the proposal, and will be concerned about any health risks the chemical processes might present.

Ultimately, the strength of their resistance is likely to depend on the level of toxic risk they think the new product presents.

2.2 **Sharing competences** – Alliances can be a valuable learning exercise for each partner. Entering into an alliance would allow Chemico and its partner to exploit complementary competences for their mutual advantage. Therefore, before agreeing to form any alliance, Chemico should consider what distinctive competences both it and the potential partner are bringing to the venture. Can they be used for mutual advantage?

Risk sharing – New product development presents many uncertainties as well as opportunities. So sharing the funding of expensive research via an alliance can spread the risk. However, it also means that future profits will have to be shared.

Goal congruence – One of the most important things for Chemico to do before entering an alliance will be to work out where there might be potential conflicts of interest between the two companies.

Disagreements may arise over profit shares, resources invested, management issues (including project management), overall control of the specification of the product to be developed and marketing strategy.

These issues must be resolved in advance, and agreed on a contractual basis, so that each party is clear about its rights and responsibilities.

People and culture –The directors should also consider staff and cultural issues, and whether the companies can work together. For example, it may take a while for staff from both companies to trust each other, and to share ideas with each other. If the two companies cannot develop this trust between themselves, then the alliance is unlikely to be successful.

Partnership costs –The alliance will involve sharing tangible expenses such as capital contribution, but also intangibles such as expertise. Having **joint ownership of patents for products** that are developed by an alliance could lead to disputes about a fair share of future returns from them, unless the agreement is carefully and thoroughly worded. There could also be similar issues surrounding the **ownership** and **use of any intellectual property** generated by the alliance. The alliance may, therefore, include significant legal costs to deal with any such issues.

Business risk – Chemico is a big company, and so is likely to be the larger partner in the alliance. There is a risk, therefore, that the alliance partner might use the alliance as a means of finding out about Chemico's technology.

Alternatively, Chemico might decide it wants to use the alliance as a stepping stone to a future takeover of the smaller company.

2.3 Acquiring the plastics company would represent a **major organisational change** for Chemico. It will be necessary to integrate the target company's operations, techniques and people into the expanded company, while continuing to run the existing Chemico business.

Cultural issues – Mergers and acquisitions often fail to produce the expected benefits due to cultural incompatibilities between the two companies combining.

In this case, a small owner-managed business is being incorporated into a much bigger business. The policies and procedures which the staff from the small company are used to are likely to be very different to those in Chemico. If the acquisition is to be successful, the new staff will need to adapt to working within Chemico's structures. However, Chemico's management and staff can assist this process by making the new staff feel welcome in the business, and explaining how things are done.

Leadership – The success of the takeover will depend on effective leadership from Chemico's management. The takeover is a **planned change**, and so the change process must be driven by the senior management. To be successful, the management must have a **clear vision** of their strategy for where the merged business is going, and how to achieve it.

In turn, this vision must be used to establish goals, and performance indicators, so that performance across the whole business can be measured against them.

Communication – Effective communication will be essential for both existing Chemico staff and staff from the newly acquired company to appreciate the reasons behind the deal, but perhaps more importantly, to understand their roles and responsibilities in the new organisation going forward.

If staff from the local plastics company will be expected to use Chemico's policies and procedures, then they will **need to be trained** so that they know what to do.

External communication – Chemico will need to decide how far the plastics business is rebranded (for example, will it be renamed Chemico Plastics?) and how the change of ownership is communicated to customers. It may be that the most practical solution is to allow the business to retain its current trading name, and reassure customers that business will continue as usual.

Management skills – The owner of the plastics business plans to retire, so ensuring a succession plan for running the plastics business will be essential. There may already be some managers in the business who can do this and effectively run it as an autonomous business unit within the Chemico 'group'.

It will be very important to establish what skills the staff within the business do have, because it is unlikely that Chemico's management know much about plastics manufacturing. Depending on the skills and commitment of the existing staff, it may be that Chemico has to recruit externally, to find a manager to run the new plastics division.

Redundancies –There are likely to be some redundancies after the acquisition, for example in the marketing and administration functions of the company being acquired. However, there may also be some redundancies in Chemico's production departments, because there is no guarantee the acquisition will completely reverse the decline in demand for Chemico's products.

The staff in both organisations will inevitably be apprehensive about the possibility of job losses. The best way to deal with such fears is to act as quickly as possible and determine whether any cuts are necessary. If they are, the cuts must be implemented fairly – for example, on the basis of the skills required going forward.

Given the lack of alternative employment opportunities in the region, losing their job will be a major problem for individual staff members. There is a chance that losing some of their colleagues will affect the morale of the staff who remain with the company.

To this end, Chemico could consider offering training and outplacement support to the staff being made redundant to help them try to find new jobs.

3 GetInsure

The **strategic level of management** is concerned with decisions that set the overall, long-term direction the organisation is to take.

Potential advantages at this level include the following.

The supplier ought to be able to deploy **IT competences, skills and techniques of a higher order** than GetInsure can provide internally, thus equipping the company to handle the much greater complexity inherent in doubling in size by merger with Insura. This should also make future acquisitions easier to absorb.

Outsourcing ought to bring cost benefits through the **exploitation of the supplier's economies of scale**, though actually achieving these benefits would depend on satisfactory contract negotiations.

The merged company will have to do something about its IT strategy. Outsourcing should **reduce the risks involved** in what will be a major project.

Access to state of the art IT systems may spur a **complete strategic reappraisal** of internal methods and procedures, producing **transformational** rather than **incremental** improvement in the way the company does things. One obvious example of such change is **delayering and empowerment**. An insurance business runs on assessment of risk: much of the process can now be automated. Also, the role of middle managers as filters and processors of routine information can now be largely eliminated by the use of modern IT systems. Much flatter and more effective structures can result.

Potential disadvantages at the strategic level

There are two important strategic dangers involved in outsourcing such an important function. First, there is the **risk of losing internal IT capability** which could stunt future developments.

Alongside this, and linked to it, is the **risk of losing control of the IT function** and the services it provides. This is a very serious problem, since IT may represent a **core competence** for a large insurance company: the growth of direct, telephone-based insurance services is a good example. A more immediate danger is, perhaps, the possibility that the chosen contractor will **exploit its position by raising charges unreasonably** at some future time.

The everyday, **routine (operational) level of management** will also be affected by outsourcing.

Potential advantages at the operational level

Advantages should include the provision of **more capable, reliable and faster systems**, which should enhance customer service; better and faster response to operational IT problems; and a reduction in the training effort currently needed to keep the existing legacy systems in operation. Junior managers should find they have more time for non IT related aspects of their jobs and will have more flexibility in the management of their staff, since work will be simplified and more standardised.

Potential disadvantages at the operational level

Disadvantages will revolve around the **reliability and efficiency of the contractors and their staff**. It is at this level that there must be the greatest integration of work; contractor staff will be expected to understand and support operational rather than technical IT priorities.

The **tactical level of management** between the strategic and the routine will be affected by the levels both above and below it, since it will be responsible for implementing strategic decisions and for providing the first response to the operational problems that junior managers cannot solve.

Potential advantages at the tactical level

These will include improved **reliability and continuity** of systems, with a reduced risk of significant failure.

Access to IT staff of high quality for advice and assistance: it may be possible to recruit some contractor staff for any remaining internal IT activities. IT training resources should also be improved.

Potential disadvantages at the tactical level

However, there will be the possibility of disadvantages too. These will be similar to those experienced by junior managers, though of greater significance.

Outsourcing would constitute a **significant change**, as would the merger with Insura. The management of these changes and the stress associated with it would fall to this level of management. Staff would be unsettled and would require a clear lead. Also, staff at all levels must keep their eyes on the ball and not allow the changes taking place to distract them from their primary responsibilities to their customers. Middle managers such as department heads must make sure that this happens.

There is also a potential problem in the degree of retraining that these managers would themselves require. They will tend to be older and **possibly less able to adjust** to the new methods and practices.

4 Slick Fashions

4.1 he upstream supply chain begins with producers of cloth and other materials for fashion clothes. Materials are purchased by the businesses that manufacture the clothing for Slick.
The manufacturers are mainly small independent firms in Russia and Malaysia, but the company has its own small manufacturing subsidiary. The manufactured goods are transported to the company's distribution centre in Russia.

Slick buys the manufactured clothes that it has designed, and distributes them to retailers directly from its Russian distribution centre, or through the distribution centre in France. Retailers may be department stores or its own stores. There are also some online sales, where Slick sells clothes directly to customers rather than using physical stores as intermediaries.

However, there appears to be a number of weaknesses in Slick's supply chain:

- Most sales are in Western Europe, but manufacturing is in Russia (Eastern Europe) or Malaysia. Although these areas may be cheaper for manufacturing, the costs of transporting the clothes to the distribution centre in Russia and then to the distribution centre in France may be quite high.
- There is no information about the efficiency of Slick's delivery system, but operating with two distribution centres may be inefficient and may slow down the transfer of manufactured goods to shops. Its competitor TCZ has a manufacturing centre in Spain and a modern distribution system. This may give TCZ a strategic advantage because transport costs should be lower; and distribution times, quicker. TCZ operates a just-in-time system for ordering goods from manufacturers, and this seems to be more successful than Slick's attempts to do the same thing.
- The speed with which the supply chain between Slick and its manufacturers responds to changes in customer demand appears to be slower than its rivals (particularly TCZ and QM), and this is likely to put Slick at a disadvantage, compared to these competitors.

4.2 The strength of competition:

- Threat of new entrants (and barriers to entry) – It may be possible for small fashion designers to enter the market, but a new entrant would have the problem of finding a sufficient number of retailers willing to sell their products which would also need to appeal to fashion-conscious customers. There may be a greater threat from small fashion designers and manufacturers who are trying to grow their business, rather than from new entrants.
- Customers are either the end consumer or department stores. The number of wholesale outlets stocking Slick's products has been falling, which may suggest that department stores are switching to competitors. If this is the case, department stores may have a reasonable amount of bargaining power over Slick. Alternatively, the decline may be due to the number of department stores themselves falling, which suggests they are struggling to remain profitable.
- For own store sales and e-shopping, customers will only buy Slick's goods if they are attracted by the design and the price. In this respect, although an individual customer will have minimal bargaining power, customers as a whole are likely to have much greater bargaining power. The costs of switching to a rival brand are low so, for example, customers may switch between rival brands, depending on whose clothes are perceived to be the most fashionable at any given time. However, because Slick's brands are internationally successful, this may encourage some customers to remain loyal to it.
- Slick's suppliers are mainly small manufacturing firms in Russia and Malaysia, so they may not have strong bargaining power compared to Slick and the other major retailers. The rising cost of cotton and fuel means that the manufacturers are demanding higher prices for their goods. An important issue in the value system will be how much of the price increase retailers are prepared to accept, and also how much they are willing to pass on to customers. (This could be a particular issue for Slick, given that it has developed a reputation for selling 'reasonably priced' goods.)
- There are probably no direct substitutes to fashion clothes, although customers may be able to switch to cheaper fashion goods retailers. However, there is insufficient information in the scenario to assess the strength of this force in the industry.
- Competition between fashion goods producers seems to be strong, although the strength of the competition may vary between different parts of the world. Although we do not know the relative sizes of Slick, TCZ, QM and BTN, the fact that the industry segment appears to be dominated by these four firms suggests that there is likely to be considerable rivalry between them. However, competition may be on fashion design and the popularity of different clothing ranges, rather than price. It seems plausible, however, that the strength of competition between the firms keeps prices lower than they might otherwise be.

Chapter 4
Strategic performance management

Introduction

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2 Information for strategic decision making

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4 Rewards, behaviour and performance

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Answers to Self-test questions

Introduction

Learning outcomes

- Advise on, and develop, appropriate performance management approaches for businesses and business units, including the use of data analytics
- Explain and demonstrate how a business can analyse complex, quantitative and qualitative data from multiple sources to provide strategic management accounting information to implement, monitor and modify a strategy at an appropriate organisational level in order to create competitive advantage
- Use financial and non-financial performance data from a variety of sources, including integrated reporting disclosures, to measure aspects of performance at a variety of organisational levels
- Advise and develop appropriate remuneration and reward packages for staff and executives linked to performance, considering agency relationship issues; and evaluate the impact of corporate reports from employee remuneration, including pensions and share-based payment
- Develop measures to evaluate performance in the context of social responsibility, sustainability, environmental matters and natural capital and climate change
- Set out and explain assurance procedures for qualitative and quantitative disclosures relating to social responsibility, sustainability, environmental matters and demonstrate how effective assurance can benefit stakeholders and the public interest

Knowledge brought forward

You should already be familiar with the financial and non-financial data (including qualitative as well as quantitative data) which can be used to measure an organisation's financial performance, because they have been covered in the Business Strategy and Technology syllabus.

Examination context and syllabus links

It is important to distinguish between performance measurement and performance management. While it is important for organisations to measure how well they are performing (or for accountants to measure how well their organisations are performing), this measurement takes place within the wider context of strategic planning and control, and it is subject to both internal and external factors which can affect performance. (We have looked at these factors in the chapter Strategic Analysis.)

At this level, it is vital to appreciate that you try to link any performance measures you calculate to an organisation's context, and assess what impact that context has had on the organisation's performance. Equally, it is important to remember that performance management also considers how an organisation's performance can be improved, using the results of performance measurement. For example, an organisation's performance can be improved if performance measures are introduced which encourage staff to improve their performance. (In this respect, there is a link between performance management and human resource management, which we look at in the chapter Human resource management.) In the chapter Data analysis of this Workbook, we will look in more detail at data analysis, and how you should use the information provided in case study scenarios to help explain an organisation's performance, and to think about the strategic implications of any issues identified in an organisation's performance data. However, before we can analyse an organisation's performance, we need reliable and timely information about that performance. This highlights the importance of information systems in performance management, and we look at information systems in more detail in chapter Information strategy of this Workbook.

The references in the learning outcomes to analysing complex, quantitative and qualitative data and using data from a variety of sources could also be seen as a pre cursor to the concepts of 'big data' and 'data analytics' which we discuss in the chapter Data analysis. Customer sentiment (illustrated, for example, through social media posts) could be an important source of qualitative data for an organisation. Increasingly, entities are recognising the importance of measuring indicators of non- financial performance, as well as financial performance. One place in which non-financial

performance is specifically important is in relation to social responsibility, which we look at again in the chapter Finance awareness. The increasing importance of non-financial aspects of performance, linked to an increasing awareness of the importance of business sustainability and longer-term value creation, is reflected in the development of 'Integrated Reporting'.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your studyof this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Performance management** In order for an entity to assess how well it is performing, and whether it is achieving its goals, some kind of measurement is required. Traditionally, performance measurement has had a strong financial focus (for example, comparing actual performance vs. budget) but organisations have increasingly recognised the importance of non- financial factors (for example product/service quality, and customer satisfaction). Similarly, stakeholders are becoming increasingly interested in non- financial aspects of performance (for example, in relation to sustainability and social responsibility) as well as financial aspects.	**Approach** Once an entity has chosen and implemented its strategies, it still needs to monitor the impact of those on its performance. Ensure you understand budgeting as a control tool. **Stop and think** How should an entity decide which aspects of its performance to measure?	Exam questions may require you to develop appropriate ways to measure the performance of businesses or divisions, including data analytics, and advise how an entity's performance could be improved.	

CHAPTER 4

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Information for strategic decision making** Strategic information is used to plan the objectives of an organisation and to assess whether goals are being met in practice. The relevant performance information needs to be available to managers so strategic IT systems must be put in place to facilitate this. Organisations now have access to more data than ever and can analyse it in more detail. This should help managers make better decisions.	**Approach** Section 2 highlights two key points: (a) performance information is vital for decision making and control; and (b) performance information is required at different levels across an organisation. The reference to strategic management accounting in section 2 is important. External information, and non-financial information – which are key aspects of strategic management accounting – are likely to be valuable in making strategic business decisions. **Stop and think** What are the sources of external information for an entity?	In the exam you are typically presented with several exhibits. Using this information, you may be expected to analyse both quantitative and qualitative data to provide strategic management accounting information, which could be used to help an entity create competitive advantage.	**IQ1: Levels of performance** This question tests your understanding of the differences between strategic and operational business issues. Use evidence from the scenario to support your conclusions.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Performance measurement** When designing measurement systems, it is important to remember the impact that the choice of performance measures themselves can have on performance. For example, performance measures based around short-term profit may encourage strategies and behaviour which are not sustainable in the longer term.	**Approach** Section 3 reiterates the importance of using non-financial measures as well as financial ones in order to understand an entity's performance. In this respect, the Balanced Scorecard can be a useful model to use when selecting performance measures. The topic also highlights the importance of non-financial aspects of performance in relation to social responsibility and sustainability matters.	In the exam be prepared to use financial and non-financial data from the scenario to measure multiple aspects of performance, at different organisational levels.	**IQ2: Hotel** In this question you are required to develop performance measures for a hotel. Use the scenario to identify factors that are critical to the success of the hotel and select performance measures that focus on these areas. **IQ3: KPIs** IQ3 looks at non- financial KPIs and what factors the auditors should consider when assessing the appropriateness of them. them.
	Once performance has been measured, and any areas of under performance have been identified, improvement strategies need to be developed.	These are important themes in the SBM&L syllabus, for example in relation to the UN's Sustainable Development Goals, and we look at them again in the chapter 'Finance awareness'. **Stop and think** What are the benefits and problems of using profit as a measure of performance?		

Topic	Practical significance	Study approach	Exam approach	Interactive questions
4	**Rewards, behaviour and performance** There is a need to balance pay with performance, while still remaining competitive as an employer. Investors will expect salary increases to be commensurate with increases in productivity and growth, feeding into increases in shareholder wealth.	**Approach** This section highlights the importance of managing staff performance, and the impact reward and remuneration structures could have on performance. It is important to think not only about the behavioural impact of reward structures, but also the potential corporate reporting implications which might arise from them. **Stop and think** What factors are considered to be motivating for employees?	In the exam you may be required to suggest practical suggestions to deal with real-life business problems. You may therefore be asked to evaluate performance-based remuneration and reward packages for staff and executives and consider their impact on performance and behaviour.	**IQ4: Reward systems** IQ4 looks at management reward schemes and the consequences of them. The question requires analysis of the scenario and application of commercial acumen rather than detailed technical knowledge. **IQ5: Manager's performance** The question provides you with some budgeted and actual performance figures used in calculating management bonuses. You are asked to assess the problems of using such information to judge managerial performance.
5	**Corporate social responsibility and performance** Good ethics is seen as good business. Consequently, there	**Approach** The need to look at long-term performance is one of the main drivers behind integrated	Sustainability is of increasing importance for businesses so it is likely to appear more frequently in exam questions to	**IQ6: Assurance engagement** The organisation in the scenario has decided to publish a corporate

Topic	Practical significance	Study approach	Exam approach	Interactive questions
	has been a large increase in the range of social responsibility metrics that companies report on. Stakeholder expectations and legislation reinforce the importance of reporting on social and environmental matters in annual reports.	reporting, which we look at in this section. This section also highlights the importance of non-financial aspects of performance in relation to social responsibility and environmental matters. Ensure you are familiar with the contribution accountants make to achieving the UN's sustainable goals as well as being aware of the Task force on Climate-related Financial Disclosures (TCFD). **Stop and think** Why is 'sustainability' an important issue when evaluating performance?	reflect this trend. You may be asked to evaluate an organisation's performance in the context of social responsibility, sustainability, environmental matters and natural capital, as well as traditional short-term financial matters. You could also be asked to suggest assurance procedures for qualitative and quantitative disclosures relating to social responsibility, sustainability and environmental matters.	environmental and sustainability report. The auditors have been asked to undertake an assurance engagement on the report and you are asked to assess whether or not they should accept the engagement.

Once you have worked through this guidance you are ready to attempt the further question practice included at the end of this chapter.

1 Performance management

Section overview

- In order to assess whether or not an organisation is meeting its goals, some form of measurement versus expectations will be required. Historically, this has taken the form of budgeting. In this chapter we will look at the increasing importance of non-financial measurement in performance management.
- A second element of performance management is the improvement of performance. The metrics developed as part of the performance management systems can be used to track improvements in business processes and thus be used to drive greater efficiencies.

1.1 Performance measurement and control

All systems of control can be analysed using the **cybernetic model**. The essence of this model is the **feedback** of control action to the controlled process: the control action itself being generated from the comparison of actual results with what was planned.

Performance measurement has become such an accepted part of business life that sometimes we lose sight of its purpose.

(a) Performance measurement is part of the overall cybernetic (or feedback) control system, providing the essential feedback spur to any necessary control action.

(b) It is a major input into communications to stakeholder groups, including the widening field of corporate reporting.

(c) It is intimately linked to incentives and performance management systems, providing evidence of results against agreed objectives.

(d) Motivation may be enhanced since managers will seek to achieve satisfactory performance in areas that are measured.

1.1.1 Feedback loops

To some extent, planning and controlling are two sides of a single coin, since a plan is of little value if it is not put into action, while a system of control can only be effective if the people running it know what it is they are trying to achieve.

In the cybernetic system, an objective is established: for the organisation, this might be the current year's budget.

Actual achievement is measured, perhaps by means of monthly reports, and a process of comparison takes place (for example, by comparing actual figures to budgeted ones).

Managers can then take control action to try to make up for any failures to achieve the plan. This control action feeds back into the activity of the organisation and its effects should become apparent in the next monthly report.

This kind of feedback loop is the essence of any control system, though sometimes it may be difficult to discern its existence and operation.

Definition

Feedback: Feedback occurs when the results (outputs) of a system are used to control it, by adjusting the input or behaviour of the system. Businesses use feedback information to control their performance.

However, when considering feedback loops, it is important to distinguish between single loop feedback and double loop feedback.

In **single loop feedback**, changes are made to the system's behaviour in order to try to meet the plan. By contrast, **double loop feedback** can result in changes being made to the plan itself.

Using a simple example, if an organisation's operating profit is below budget, managers could be asked to identify ways to reduce costs in order to help bring profits back in line with budget. This is single loop feedback.

Alternatively, the organisation might realise that an adverse variance on costs is due to a rise in raw material costs which is outside its control. Therefore, the organisation could reforecast its original cost budget, but it could also consider whether it needs to revise its sales prices in the light of the change in costs. Any such changes to reforecast the original budget would be double loop feedback.

Organisations as open systems

Importantly, the simple illustration above in relation to double loop feedback shows how external factors (in this case, a rise in raw material input costs) can affect an organisation's performance.

However, external factors can affect performance more generally. In the chapter Strategic analysis we highlighted the importance of 'PESTEL' analysis in identifying opportunities and threats to an organisation, but the changing business environment and other external factors can equally have a significant influence on an organisation's current performance.

The fact that performance is influenced by external and environmental factors highlights that organisations are open systems, and therefore, there are likely to be aspects of performance which are beyond an organisation's control.

However, this can raise difficulties in relation to performance management in an organisation.

Consider the following simple example. An organisation has noticed that it has been failing to meet revenue targets in recent weeks, and it has identified that problems with its website have meant that some customers have not been able to make orders online. Consequently, the organisation devoted a considerable amount of resources to improving its website to make it more reliable and user- friendly.

However, when the improved website went live, the organisation noticed that its revenues were still behind budget. Now managers realised that one of the organisation's major competitors had reduced their prices and another competitor had launched a new market-leading product. Both these initiatives had enabled the competitors to increase their market share at the organisation's expense.

This simple example illustrates that the 'open system' nature of organisations means that, often, managers cannot attribute performance to a single issue, but need to look at it as a combined effect of many variables.

Equally, the idea that different business units or functions within an organisation are also open systems means that managers need to be aware of the **interdependencies of different operations and processes** within an organisation, as well as the overall environment in which the organisation operates.

1.1.2 Scope of performance management

Our discussion of feedback and control has looked mainly at organisational performance. However, performance management can be applied at different levels within an organisation (corporate, business unit, team, individual).

This highlights the issue of **goal congruence** when designing performance reward systems. In particular, reward systems need to be designed in such a way that individuals' goals (in order to earn their rewards) are aligned to team goals and the organisation's goals overall.

It is also important to note that aspects of human resource management (HRM) (such as setting **performance objectives** and **reward management**) play an important role in the performance management and control of the organisation.

In this respect, HRM follows a similar control model as is used for the overall strategic and operational control of an organisation:

Step 1 Goals are set (for individuals).

Step 2 Performance is measured and compared with target.

Step 3 Control measures are undertaken in order to correct any shortfall.

Step 4 Goals are adjusted in the light of experience.

However, it is crucial to recognise that the goals set for individuals should link to, and support the achievement of, the key strategic and operational success factors for an organisation.

Effective performance management requires that the strategic objectives of the organisation are broken down into layers of more and more detailed sub-objectives, so that **individual performance** can be judged against personal goals that support and link directly back to corporate strategy.

1.2 Budgetary control systems

Budgetary control systems are used by many companies to compel planning, coordinate activities and motivate employees, as well as to evaluate performance. Deviations from the plan are corrected via **control action**.

A budget is a **plan expressed in monetary terms**. It is prepared and approved prior to the budget period and may show income, expenditure and capital to be employed.

Purpose of budgets

- to compel planning
- to coordinate activities
- to communicate ideas
- to provide a framework for responsibility accounting
- to motivate employees and management
- to evaluate performance

Negative effects of budgets include

- limited incentives if the budget is unrealistic
- a manager may add a percentage to their expenditure budget to ensure that they can meet the figure
- manager achieves target but does no more
- a manager may go on a 'spending spree'
- draws attention away from the longer-term consequences

Problems with budgetary control

- The managers who set the budgets are often not responsible for attaining them.
- The goals of the organisation as a whole, expressed in the budget, may not coincide with the personal aspirations of the individual managers.
- Control is applied at different stages by different people.

How to improve behavioural aspects of budgetary control

- develop a working relationship with operational managers
- keep accounting jargon to a minimum
- make reports clear and to the point
- provide control and information with minimum delay
- ensure actual costs are recorded accurately
- allow for participation in the budgetary process

Limitations to the effectiveness of participation

- Some people prefer tough management.
- A manager may build slack into their own budget.
- Management feel that they have little scope to influence the final outcome.

1.3 Criticisms of traditional budgeting

According to the co-founders of the 'Beyond Budgeting' movement, Jeremy Hope and Robin Fraser, traditional budgets hold companies back, restrict staff creativity and prevent them from responding to customers. Hope and Fraser quoted a 1998 survey which found that 88% of respondents were dissatisfied with the budgeting model.

They also highlighted some surprising statistics:

- 78% of companies do not change their budget during the annual cycle. Managers tend to 'manage around' their budgets.
- 60% do not link strategy and budgeting.
- 85% of management teams spend less than one hour a month discussing strategy.

Budgets tend to focus on financial outputs rather than quantitative performance measures, and are not linked to employee performance. Hope and Fraser believe that organisational and behavioural changes are required, and they link these with the new business environment to suggest 'a management model that really supports strategy'. We summarise this in the table below:

Change in environment	How to succeed?	Key success factors	'Budget barriers'
• Rising uncertainty	• Cope with uncertainty by adapting quickly	• Devolve authority • Fast information • Strategy an adaptive process	• Too many rules • Restricted information flows • Fixed cycles are difficult to change
• Importance of intellectual capital	• Find (and retain) good people	• Recruit and develop good staff and set up a fair reward system	• Budgets tend to ignore people and lead to 'management by fear' and a cost- cutting mentality
• Increasing pace of innovation	• Create an innovative climate	• Share knowledge • See the business as a series of investments, not just components of a budget	• Central planning and bureaucracy encourage short-termism, and stifle creativity
• Falling prices and costs	• Operate with low costs	• Adopt a low cost network structure • Challenge costs • Align resources and costs with strategy	• Budgets prevent costs being challenged; they simply become 'entitlements'
• Declining customer loyalty	• Attract and keep the right customers	• Set up strong customer relationships • Establish a customer-facing strategy	• Budgeted sales targets and product focus tends to ignore customer needs
• More demanding shareholders	• Create consistent shareholder value	• Take a long-term view of value creation • Base controls on performance	• Budgets tend to focus on the short term, with no future view

According to Hope and Fraser, 'giving managers control of their actions and using a few simple measures, based on key value drivers and geared to beating the competition, is all that most cases require'.

Context example: Svenska Handelsbanken

Challenging costs is inevitably part of such a process. Hope and Fraser identified Swedish bank Svenska Handelsbanken as a key exponent. Its low costs are the product of several factors:

- Small head office staff, and a flat, simple hierarchy.
- People in regions and branches are self-sufficient and well trained and are measured by competitive results, which has produced an attitude keen to weed out unwarranted expenses.
- Lower credit losses because front-line staff feel more concerned to make sure that the information on which they base lending decisions is correct.
- Central services and costs are negotiated rather than allocated.
- Internet technology is used to reduce costs, with the benefit accruing to the customer's own branch.

The European Vice President of Svenska Handelsbanken believes that 'devolving responsibility for results, turning cost centres into profit centres; squeezing central costs, using technology and eradicating the budgeting 'cost entitlement' mentality are just some of the actions we have taken to place costs under constant pressure'.

Another criticism of the annual budgeting and planning process is that it does not add value. Instead, it uses a large amount of senior managers', budget holders' and finance teams' time, but creates an output which can be almost meaningless in times of rapid change.

Establishing a rolling quarterly forecast may be more appropriate in times of rapid change, and these forecasts should also be linked to critical success factors (CSFs) rather than simply being a summary of financial targets.

1.4 Beyond Budgeting

There is much debate about whether the traditional budgeting models evaluated above are suitable in many modern organisations. Much of this debate revolves around whether traditional models can operate effectively in a changing environment. 'Beyond Budgeting' is one response to the perceived weaknesses in traditional budgeting.

Jeremy Hope (who championed the idea of 'Beyond Budgeting' with Robin Fraser) highlights two fundamental differences between Beyond Budgeting and traditional management and budgeting models:

(a) It is a more adaptive way of managing. Instead of fixed annual plans and budgets which tie managers to predetermined actions, targets are reviewed regularly and based on goals that link to performance against best in class benchmarks, competitors and prior periods.

(b) It enables a more decentralised way of managing. Instead of a traditional hierarchy and centralised leadership, Beyond Budgeting enables decision making and performance accountability to be devolved to line managers, and creates a culture of personal responsibility and self-management. Hope and Fraser believe this change in culture, in turn, leads to increased motivation, higher productivity and better customer service.

Juergen Daum, a business consultant who sat on the Beyond Budgeting round table, has argued on his website (www.juergendaum.com):

Fixed budgets don't work today. A budget is too static an instrument and locks managers into the past – into something they thought last year was right. To be effective in a global economy with rapidly shifting market conditions and quick and nimble competitors, organisations have to be able to adapt constantly their priorities and ... put their resources where they can create most value for customers and shareholders. In order to do that, they need the right concepts, management processes and tools – concepts such as the Beyond Budgeting Management Model.

The introduction of new management instruments such as the Balanced Scorecard, which help to better align the entire organisation with corporate strategic objectives and to focus it on the essentials, has created the right foundation. Because if corporate strategy and the objectives are clear for all people in an organisation, one can, in principle, react faster to changing market conditions. But then the fixed budget comes into the way and prevents organisations from really doing the right things. What is often missing is a more flexible operational planning and control model. The Beyond Budgeting model aims to fill this gap.

1.5 Traditional budgeting vs 'Beyond Budgeting'

Hope and Fraser argue that 'traditional' budgeting processes do not meet the purposes of performance management. The table below illustrates the ways in which Hope and Fraser feel Beyond Budgeting differs from 'traditional' budgeting, and also how Beyond Budgeting meets the purposes of performance management better.

Purposes of performance management	Traditional budgeting processes	Beyond Budgeting processes
Goals – To balance the need for short-term and long-term profitability	**Short-term focus**: Fixed annual targets drive short-term actions with a view to meeting annual targets.	**Longer-term focus**: KPIs and aspirational goals focus on sustained competitive success.
Rewards – To provide an effective basis for motivating and rewarding performance	Individual departments or divisions have to meet their own targets in order to gain rewards. This focus on individual incentives means departments are not willing to share expertise, skills and information with others, preferring to **defend their 'own turf'** instead.	Recognition of team-based success is important, but the organisation needs to be **viewed as one team**, thereby breaking down barriers and encouraging people to share resources and knowledge. There is an **emphasis on learning and continual innovation**.
Plans – To direct actions to maximise market opportunities	Planning is based on a premise of '**predict and control**' and is highly deterministic. This means plans are difficult to change even if the assumptions on which the plans were based become unrealistic. Organisations adopt a '**company led**' rather than 'customer led' approach to strategic management.	The future is inherently unpredictable so plans need to be **continuously updated** to adapt to events as they happen. Organisations adopt a '**customer led**' approach to strategic management.
Resources – To ensure that resources are available to support agreed actions	Budgets are seen as a way of enabling senior managers to allocate resources to operating units. The process is **centralised**, and the 'head office' exerts control over the operating units or cost centres. But head offices are usually risk averse and prefer to allocate resources to existing products and businesses rather than to new ideas and opportunities.	Resources are available on demand, to enable a fast response to new opportunities. Resources are **allocated to strategic initiatives** rather than to departmental budgets.

Purposes of performance management	Traditional budgeting processes	Beyond Budgeting processes
Coordination – To harmonise actions across the business	Leaders attempt to coordinate plans by linking one functional budget to another. But these centrally linked budgets provide slow solutions that often fail to meet customer needs.	Coordination should focus around a dynamic linking of customer demands in order to provide fast, seamless solutions that **meet customer needs**.
Controls – To provide relevant information for strategic decision making and controls	Performance reports are based primarily on financial **indicators**, and usually contain lagging indicators (connected with past performance and past events). But financial indicators give little insight into the root causes of performance, and provide a poor basis for learning.	Strategic decisions are based on **multi-faceted** and **multi-level information**, which gives insight into where performance is heading in the future as well as in the past. Information systems need to be able to provide fast, transparent information for multi-level control.

2 Information for strategic decision making

Section overview

- Strategic information is used to plan the objectives of the organisation, and to assess whether the objectives are being met in practice. Therefore, it is important that organisations have an information systems strategy so that it can meet its information requirements.
- Organisations often have to consider three different strategies in relation to information: information systems (IS) strategy, information technology (IT) strategy and information management (IM) strategy. We will look at these in more detail throughout this chapter, but it is important you are aware of the different aspects of information strategy overall as you are reading through the chapter.
- Strategic management accounting provides information that can be used to support strategic planning and control. It differs from traditional management accounting in that it provides an external orientation and a future orientation.

2.1 Levels of information and decision making

In the chapter Strategic Analysis, we highlighted the idea of a hierarchy of performance in organisations: covering strategic, tactical and operational levels of performance.

This idea of a hierarchy is also important in relation to the data and performance information required for decision making and control in organisations. You should already be familiar with the different levels of information which organisations need from your Business Strategy and Technology studies at Professional Level. However, here is a brief recap of them.

Robert Anthony suggested that there are **three levels** or tiers within an organisation's **decision- making hierarchy**.

Strategic planning is the process of deciding on objectives of the organisation, on changes in these objectives, on the resources used to attain these objectives, and on the policies that are to govern the acquisition, use and disposition of these resources.

Management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives.

Operational control is the process of assuring that specific tasks are carried out effectively and efficiently.

The 'management' level is sometimes also called the tactical level; eg, tactics or tactical planning.

2.2 Strategic information

Strategic planning, management control and operational control may be seen as a hierarchy of planning and control decisions. (This is sometimes called the Anthony hierarchy, after the writer Robert Anthony.)

Figure 4.1: The Anthony hierarchy

As well as highlighting the three levels in the hierarchy, it is also important to note the different characteristics of the information produced (and required) at different levels in the hierarchy:

Strategic information	Management (tactical) information	Operational information
• Derived from both internal and external sources • Summarised at a high level • Relevant to the long term • Concerned with the whole organisation • Often prepared on an ad hoc basis • Both quantitative and qualitative • Focus on planning; future orientation • Uncertain, as the future cannot be accurately predicted	• Primarily generated internally (but may have a limited external component) • Summarised at a lower level • Relevant to the short and medium term • Concerned with activities or departments, and with the efficiency/ effectiveness of resource usage • Prepared routinely and regularly • Based on quantitative measures (eg, budgets, benchmarks) • Some focus on planning, but greater focus on control	• Derived from internal sources; often includes 'transaction data' from transaction processing systems • Detailed, being the processing of raw data • Relevant to the immediate term • Task specific • Prepared very frequently • Largely quantitative, but often expressed in operational measures (eg, units produced, transactions processed) rather than monetary terms • Focus on control (rather than planning)

Professional skills focus: Structuring problems and solutions

One of the professional skills tested in the ACA exams requires you to structure information from various sources into suitable formats for analysis. Different users of business information will have different information requirements, depending on where they sit in the hierarchy of planning and control, so ensure that the information you provide meets the needs of the stakeholders in the question.

Interactive question 1: Levels of performance

ST University (STU) is a higher educational institution in a European country, with approximately 8,500 full-time students. It employs 360 academic staff and 450 other staff.

STU currently receives a significant amount of government funding, which covers its capital budget (for buildings and equipment), teaching and research.

However, a recent visit from government-appointed auditors has been critical of STU's performance in a number of areas:

- For the last two financial years, STU has operated at a deficit, with its expenditure being greater than its income.
- The percentage of students dropping out of courses is greatly in excess of the national average, as is the failure rate.
- The number of student complaints was very high, and has been increasing over the past five years.

- It has had an abnormally high level of staff turnover.
- STU's internal control of cash receipts is weak, and in several areas there were discrepancies between the cash actually held and the expected amount.
- It also had a large number of debtors (receivables), mainly ex-students, but was not taking any action to collect outstanding debts.
- STU could not accurately produce a headcount of the number of students enrolled on its courses.
- Overall, the quality of education provided by STU has been graded as 'Poor', which is the lowest possible rating.

Although STU's senior management team were disappointed at the level of the auditors' criticism overall, they were particularly surprised at some comments made about its computing facilities. Over the past two years, STU has made a major capital investment in upgrading all the computing facilities across the university.

The auditors' report made reference to this investment, but pointed out that some department faculties are making much better use of them to promote learning than others.

Requirement

Discuss the extent to which the criticisms made about the university are strategic or operational.

See **Answer** at the end of this chapter.

2.3 Strategic information systems

Crucially, in order for managers or accountants to be able to measure the performance of their organisations, the relevant performance information needs to be available to them. This highlights the importance of information systems. Moreover, the reference to the Anthony hierarchy (above) highlights the importance of having different types of information systems which provide performance information at different levels (strategic, tactical and operational).

Strategic IT systems include executive information systems (**EISs**),tactical level information can be obtained from management information systems (**MISs**) and decision support systems (**DSSs**), while operational level data can be obtained from transaction processing systems (**TPSs**). **Value added networks** facilitate the strategic use of information in order to add value.

We will look at EIS, MIS and DSS in more detail in the chapter Information Strategy, but they can be summarised as follows:

2.3.1 Executive information systems (EISs)

Definition

Executive information system (EIS): A system that pools data from internal and external sources and makes information available to senior managers in an easy to use form. An EIS helps senior managers make strategic, unstructured decisions.

2.3.2 Management information systems (MISs)

Definition

Management information system (MIS): A system that converts data from mainly internal sources into information (eg, summary reports, exception reports). This information enables managers to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible.

An MIS provides regular reports and (usually) online access to the organisation's current and historical performance.

MISs usually transform data from underlying transaction processing systems into summarised files that are used as the basis for management reports.

2.3.3 Decision support systems (DSSs)

Definition

Decision support system (DSS): A system that combines data and analytical models or data analysis tools to support semi-structured and unstructured decision making.

DSSs are used by management to assist with making decisions on issues which are subject **to high levels of uncertainty** about the problem, the various **responses** which management could undertake or the likely **impact** of those actions.

DSSs are intended to provide a wide range of alternative information gathering and analytical tools with a major emphasis on flexibility and **user-friendliness**.

2.3.4 Value added networks (VANs)

Definition

Value added networks (VANs): VANs are networks that facilitate the adding of value to products and (particularly) to services by the strategic use of information. Typically, VANs will link separate organisations together through electronic data interchanges (EDIs), contributing to the development of **business networks**.

Also, they are often business ventures in their own right, with companies subscribing to the services available. Good examples are the SABRE, Amadeus and Galileo airline flight booking systems. A simpler example is the EDI systems between manufacturers and their suppliers that facilitate the operation of just-in-time logistics.

VANs give mutual competitive advantage to all their subscribers, but only so long as some competitors are left outside the system. As soon as membership of the VAN (or a competing VAN) becomes a standard feature of the industry, the original competitive advantage is lost. Competitive advantage based on VAN membership can then only exist if there is more than one VAN and each VAN in the industry offers a different degree of benefit in terms of cost reduction or differentiation.

2.4 Strategic information systems

Michael Earl's analysis of information strategy into three elements (IS, IT and IM) is useful. The first distinction he made was between the strategies for **IS** and **IT**.

2.4.1 Aspects of information strategy Is strategy

An IS strategy is concerned with specifying the systems (in the widest meaning of the word) that will best **enable the use of information to support the overall business strategy** and to deliver tangible benefits to the business (for example, through increased productivity, or enhanced profits). In this context, a 'system' will include all the **activities, procedures, records** and **people** involved in a particular aspect of the organisation's work, as well as the **technology** used.

The IS strategy is focused on **business requirements**, the demands they make for information of all kinds and the nature of the benefits that information systems are expected to provide.

This strategy is very much **demand-led** and **business-driven**: each strategic business unit (SBU) in a large organisation is likely to have its own IS strategy.

The IS strategy is supported by:

IT strategy

The IT strategy, by contrast, is technology focused and looks at the resources, technical solutions and systems architecture required to enable an organisation to implement its IS strategy.

IT strategies are likely to look at the **hardware and software** used by the organisation to produce and process information. They may also include aspects of data capture and data storage, as well as the transmission and presentation of information.

IM strategy

Earl subsequently also highlighted the need for an IM strategy. The emphasis here is on management: managing the role and structure of IT activities within an organisation, and managing the relationships between IT specialists and the users of information. In this respect, a key feature of IM strategy is its focus on **roles and relationships**.

IM strategy also plays an important part in ensuring that information can be accessed by all the people who need it but, at the same time, access to information is restricted to those people who need access to it.

We might sum up the three levels of information strategy in very simple terms by saying that: IS strategy defines **what** is to be achieved; IT strategy determines **how** hardware, software and telecommunications can achieve it; and the IM strategy describes **who** controls and uses the technology provided.

This model of information strategy has the advantage of being **internally consistent** and quite **simple** to understand. Unfortunately, the picture is spoiled by a different use of the term information management. You may come across a rather narrow use of this term to mean 'the approach taken to storing and accessing data'. Since this is really just an aspect of the IT strategy, as defined above, we do not recommend the use of the term in this way.

2.5 The challenge for accountants

The availability of a range of different information systems has challenged the role of the accountant in the control framework. These systems, such as EISs, have highlighted a number of perceived failings in the traditional accounting systems organisations have historically relied on.

(a) Direction towards financial reporting. Historical costs are necessary to report to shareholders, but the classifications of transactions for reporting purposes are not necessarily relevant to decision making.

(b) Misleading information – particularly with regard to overhead absorption.

(c) Neatness rather than usefulness.

(d) Internal focus. Management accounting information has been too inward looking (for example focusing on achieving internal performance targets, like budgets). However, organisations also need to focus on customers and competition.

(e) Inflexibility and an inability to cope with change.

The challenge lies in providing more relevant information for strategic planning, control and decision making. Traditional management accounting systems may not always provide this.

(a) Historical costs are not necessarily the best guide to decision making. However, management accounting information is often criticised for focusing on the past rather than the future. (This point also ties in with the wider issue around analytics (especially predictive analytics), and using data to help try to predict future patterns and trends, which we looked at in the chapter Strategic analysis, and we will discuss in more detail in the chapter Data analysis.)

(b) Strategic issues are not easily detected by management accounting systems.

(c) Financial models of some sophistication are needed to enable accountants to provide useful information.

2.5.1 Objectives of management accounting information

Management accounting information is used by managers for a variety of purposes:

(a) **To measure performance.** Management accounting information can be used to analyse the performance of the business as a whole, and of the individual divisions, departments or products within the business. Performance reports provide feedback, most frequently in the form of comparison between actual performance and budget.

(b) **To control the business**. Performance reports are a crucial element in managing a business. In order to be able to control their organisation, managers need to know the following:

(1) What they want the business to achieve (targets or standards; budgets)

(2) What the business is actually achieving (actual performance)

By comparing the actual achievements with targeted performance, management can decide whether corrective action is needed, and then take the necessary action when required.

Much control information is of an accounting nature because costs, revenues, profits and asset values are major factors in how well or how badly a business performs.

(c) **To plan for the future.** Managers have to plan, and they need information to do this. Much of the information they use is management accounting information.

(d) **To make decisions.** As we have seen, managers are faced with several types of decision:

(1) Strategic decisions (which relate to the longer-term objectives of a business) require information which tends to concern the organisation as a whole, is in summary form and is derived from both internal and external sources.

(2) Tactical and operational decisions (which relate to the short or medium term and to a department, product or division rather than the organisation as a whole) require information that is more detailed and more restricted in its sources.

2.6 What is strategic management accounting?

The aim of strategic management accounting is to provide information that is relevant to the process of strategic planning and control.

Definition

Strategic management accounting: A form of management accounting in which emphasis is placed on information about factors which are external to the organisation, as well as non-financial and internally generated information.

2.6.1 External orientation

The important fact, which distinguishes strategic management accounting from other management accounting activities, is its **external orientation**, towards customers and competitors, suppliers and perhaps other stakeholders. For example, whereas a traditional management accountant would report on an organisation's own revenues, the strategic management would report on market share or trends in market size and growth.

(a) Competitive advantage is relative. Understanding competitors is therefore of prime importance.

For example, knowledge of competitors' costs, as well as a firm's own costs, could help inform strategic choices: a firm would be unwise to pursue a cost leadership strategy without first analysing its costs in relation to the cost structures of other firms in the industry.

(b) Customers determine if a firm has competitive advantage.

2.6.2 Future orientation

A criticism of traditional management accounts is that they are backward looking.

(a) Decision making is a forward- and outward-looking process.

(b) Accounts are based on costs, whereas decision making is concerned with values.

Strategic management accountants will use **relevant costs** (ie, **incremental** costs and **opportunity** costs) for decision making. We return to this topic later in this Workbook.

2.7 Data analytics

One of the most significant recent developments which has influenced decision making in organisations has been the increased importance of data analytics. As ICAEW's publication '*Audit Insights: Data analytics*' highlights, data analytics covers a wide range of activities including:

- the review of full data sets to find exceptions, and then drilling down into the detail

- the development of meaningful linkages between different data sets and other information
- predictive analytics, including complex modelling, which supports the optimisation of decision making

As the ICAEW publication notes, data analytics also involves the use of algorithms, visualisation and modelling techniques. 'The greatly reduced cost of data storage, efficient algorithms, and better software generally – visualisation software in particular–have made the retrieval and analysis of data, and its high-quality presentation, much cheaper and faster than was previously possible.'

Although the speed with which data is available (in real- or near-time) is a major benefit for decision making, perhaps the most significant benefit of analytics is the level of detail (or 'granularity') it can provide. Granularity can be critical in understanding and managing performance.

For example, instead of monitoring stock-outs at an aggregate level, analytics could allow a retailer to identify more detailed patterns – for example, to individual products or suppliers, or to individual stores, and at specific times. As a result, it can manage inventory and its supply chain more effectively; for example, if it can identify that many of the stock-outs have been caused by problems with a particular supplier, or in a particular region, it could investigate the reasons for this – and, if necessary, take steps to replace suppliers.

Similarly, the predictive element of analytics can reduce the need for guesswork in decision making. For example, instead of using guesswork or intuition – 'halve the price and see what happens; this usually shifts any excess stock' – retailers can use mark-down algorithms to predict the sensitivity of sales to price reductions much more accurately.

3 Performance measurement

Section overview

Historically business performance was measured via profitability, which led to a strong emphasis on growing profits. The danger in this approach is that profit is pursued to the detriment of long-term performance. The balanced scorecard offers a performance framework that balances the need to grow profits, alongside the actual drivers of improved performance ie, innovation, quality and efficiency.

Performance measures must be relevant to both a clear objective and to operational methods, and their production must be cost effective.

3.1 Deciding what measures to use

Clearly different measures are appropriate for different businesses. Determining which measures are used in a particular case will require **preliminary investigations** along the following lines.

(a) The objectives/mission of the organisation must be clearly formulated so that when the factors critical to the success of the mission have been identified, they can be translated into performance indicators.

(b) Measures must be relevant to the way the organisation operates. Managers themselves must believe the indicators are useful.

(c) The costs and benefits of providing resources (people, equipment and time to collect and analyse information) to produce a performance indicator must be carefully weighed up.

Professional skills focus: Assimilating and using information

In the exam you may be required to suggest a range of performance measures for the organisation. Ensure that you read the scenario exhibits carefully to understand the business context and objectives as well as the key stakeholders and resources. This will ensure that your proposed measures are useful and relevant.

3.1.1 CSFs

In the chapter Information strategy we will look at the way organisations use **CSFs** to determine their information requirements.

However, CSFs are also relevant here. CSFs highlight the elements of performance that are vital to an organisation's success. In turn, however, this means it is important for organisations to measure how well they are performing in those key areas of performance. For example, if an organisation identifies that 'quality of service' is a CSF, then the organisation also needs to monitor the level of service it is providing for its customers.

Context example: Tesco

In the chapter Strategic analysis, in the example of the key risks facing Tesco, we noted that failing to satisfy customers was one of the company's key risks and doing so will make it less competitive and result in Tesco losing market share.

Tesco's Annual Report goes on to highlight the business is organised around three pillars of success – Customers, Product and Channels:

Customers – Tesco exists to serve customers. Listening to them and acting on what they want is vital, however customers choose to shop (eg, in store or online).

Product – Tesco builds close, and mutually-beneficial relationships with its supplier partners, to source the best possible products that meet and anticipate customers' needs.

Channels – Tesco uses a range of channels – from small shops to large stores, and online – to bring the best products to customers.

Achieving these three aims successfully should help create a 'virtuous cycle' of success: the better job Tesco does for its customers, the more it will improve sales. The more sales improve, the more it can reinvest in further improving customers' shopping experiences.

Tesco also acknowledges that the way it measures performance and rewards success can also play an important part in its aim of delivering value for customers. In the light of this, it has identified six key performance indicators:

- **Net promoter score** – based on customer feedback; the extent to which customers (would) recommend Tesco, and come back time and again.
- **Staff satisfaction ratings** – based on the extent to which colleagues recommend Tesco as a great place to work and shop. This recognises that Tesco's staff play a key role in customers' shopping experience; the better staff serve shoppers, the more likely shoppers are to continue shopping with Tesco.
- **Supplier satisfaction score** – based on supplier feedback, around whether suppliers feel they have fair and transparent relationships with Tesco. The company needs to build trusted partnerships with its suppliers in order to be able to continue to provide the best offer for its customers.

- **Sales growth**
- **Operating profit**
- **Operating cash flow**

The logic for the final three (financial) KPIs is that if Tesco does a better job for its customers, this will help it grow sales and achieve a stronger financial position.

3.2 Financial modelling and performance measurement

Financial modelling might assist in performance evaluation in the following ways.

(a) Identifying the variables involved in performing tasks and the relationships between them. This is necessary so that the model can be built in the first place. Model building therefore shows what should be measured, helps to explain how a particular level of performance can be achieved, and identifies factors in performance that the organisation cannot expect to control.

(b) Setting targets for future performance. The most obvious example of this is the traditional budgetary control system.

(c) Monitoring actual performance. A flexible budget is a good example of a financial model that is used in this way.

(d) Coordinating long-term strategic plans with short-term operational actions. Modelling can reflect the dynamic nature of the real world and evaluate how likely it is that short-term actions will achieve the longer-term plan, given new conditions.

3.3 Profitability, activity and productivity

In general, there are three possible **points of reference for measurement**.

(a) **Profitability**

Profit has two components: **cost and income**. All parts of an organisation and all activities within it incur costs, and so their success needs to be judged in relation to cost. Only some parts of an organisation receive income, and their success should be judged in terms of both cost and income.

(b) **Activity**

All parts of an organisation are also engaged in activities (activities cause costs). Activity measures could include the following.

(1) Number of orders received from customers, a measure of the effectiveness of marketing

(2) Number of machine breakdowns attended to by the repairs and maintenance department Each of these items could be measured in terms of physical numbers, monetary value or time spent.

(c) **Productivity**

This is the quantity of the product or service produced in relation to the resources put in, for example, so many units produced per hour or per employee. It defines how efficiently resources are being used.

The **dividing line between productivity and activity is thin**, because every activity could be said to have some 'product'; or if not, can be measured in terms of lost units of product or service.

3.4 Financial performance measures

Financial measures (or monetary measures) should be very familiar to you: for example, profit; revenue; costs; or cash flow.

However, an important point to note here is that the monetary amounts stated **are only meaningful in relation to something else**. Profits are higher than last year's; the current quarter's cashflow has improved compared with last quarter's cash flow, and so forth.

We can generalise the above and give a list of yardsticks against which financial results are usually placed so as to become measures.

- **budgeted** sales, costs and profits
- **standard**s in a standard costing system
- the trend over time (last year/this year, say)
- the results of other parts of the business
- the results of other businesses
- the economy in general
- future potential (eg, a new business in terms of nearness to breaking even)

3.5 The profit measure

Profit has both advantages and disadvantages as a measure of performance.

Measure	Comment
Single criterion	Easier to manage, as the sole concern is the effect on the bottom line
Analysis has a clear objective: ie, the effect on future profits	Easier than cost-benefit analysis, for example
A broad performance measure that incorporates all other measures	'If it does not affect profit it can be ignored'
Enables decentralisation	Managers have the delegated powers to achieve divisional (and therefore group) profit
Profitability measures (eg, return on investment (ROI)) can compare all profit-making operations even if they are not alike	This ignores the balance between risk and return
Encourages **short-termism** and focus on the annual cycle, at the expense of long-term performance	Examples: cutting discretionary revenue investments, manipulation of accounting rules, building up inventories
Profit differs from **economic income**	Profit does not always equate to creating long- term value
A firm has to satisfy **stakeholders** other than shareholders, such as the Government and the local community	This may include environmental/ethical performance measures
Liquidity is at least as important as profit	Most business failures derive from liquidity crises

Measure	Comment
Profit should be related to **risk**, not just capital employed	Rarely done
Profits can fluctuate in times of rapid change	For example, as a result of exchange rate volatility
Profit measures cannot easily be used to motivate **cost centre** managers	They do not control profit
Not useful for new businesses	Most start-ups will be unprofitable for at least two years
Easily manipulated	Especially over a single period: think back to your accounting studies and the effect of inventory changes on profit under absorption costing, for example
Pure profit-based measures do not consider **capital spending**	Growth in asset levels can be uncontrolled; alternatively, productive capacity may be allowed to decline

When evaluating the use of profit as a performance measure, also remember the concept of value- based management we discussed in the chapter Strategic analysis of this Workbook. Value-based management suggests that performance measures should show how well an organisation is creating value for its shareholders; however, this value should be measured in relation to discounted future cash flows, rather than profit.

Context example: Toshiba

In July 2015, the Chief Executive of Toshiba and eight other senior staff resigned after an independent investigation uncovered a massive accounting scandal at the company.

Between 2008 and 2014 Toshiba is alleged to have over-reported profits by 151.8 billion yen (around £780 million). The Chief Executive is said not only to have known about the over-stated profits, but also to have put pressure on other senior staff to manipulate figures to inflate profits.

In April 2008 Toshiba started recording profits early, and pushing losses back, which meant that its divisions appeared more successful than they actually were. This apparent success led to higher targets being set for the next period, forcing divisions to massage the figures even more to hit the artificially-inflated figures. As a result, Toshiba found itself caught in a vicious circle of creative accounting.

Following the discovering of the scandal, the head of Toshiba's Global Communications Team acknowledged that the causes of the scandal included 'a lack of awareness and understanding among top management about appropriate accounting treatment… an over-riding current profit motive … [and] pressure to achieve budget targets'.

Based on: Trenholm, R. (2015) 'Toshiba CEO quits as accounting scandal adds up to $1.22 billion',

CNET, 21 July, www.cnet.com

3.5.1 Ratios

Ratios are a **useful** way of measuring performance for a number of reasons.

(a) It is easier to look at changes over time by comparing ratios in one time period with the corresponding ratios for periods in the past.

(b) Ratios are often easier to understand than absolute measures of physical quantities or monetary values. For example, it is easier to understand that 'productivity in March was 94%' than 'there was an adverse labour efficiency variance in March of £3,600'.

(c) Ratios relate one item to another, and so help to put performance into context. For example, the profit/sales ratio sets profit in the context of how much has been earned per £1 of sales, and so shows how wide or narrow profit margins are.

(d) Ratios can be used as targets. In particular, targets can be set for ROI, profit/sales, asset turnover, capacity fill and productivity. Managers will then take decisions which will enable them to achieve their targets.

(e) Ratios provide a way of summarising an organisation's results, and comparing them with similar organisations.

Professional skills focus: Applying judgement

Ratios can be a useful means of assessing a company's financial performance. However, do not assume that the financial data provided gives a full picture of an organisation's performance and ensure you that identify gaps in the information as well as looking for any inconsistencies in the data. Non-financial information should also be reviewed to check for consistency and to provide a more complete review.

3.6 Measuring performance in the new business environment

As well as arguing that organisations need to rethink the basis on which they prepare budgets ('Beyond Budgeting'), Hope and Fraser have also argued that, if organisations are serious about gaining real benefits from decentralisation and empowerment, they need to **change the way in which they set targets, measure performance and design reward systems**.

Hope and Fraser suggested the following scenario to highlight the relationship between targets and management responsibilities:

An SBU manager is asked for a **'stretch target'**. However, under the Beyond Budgeting model, the manager knows that 'stretch' really means their best shot with **full support** from the centre (including investment funds and improvement programmes) and a sympathetic hearing should they fail to get all the way. Moreover, the manager alone carries the **responsibility** for achieving these targets. There is neither any micromanagement from above, nor any monthly 'actual versus budget' reports.

Targets are both strategic and financial, and they are underpinned by clear action plans that cascade down the organisation, building **ownership and commitment at every level**. Monthly reports comprise a **balanced scorecard** set of graphs, charts and trends that track progress (eg, financial, customer satisfaction, speed, quality, service and employee satisfaction) **compared with** last year and with other **SBUs within the group** and, where possible, with **competitors**. Quarterly **rolling forecasts** (using broad-brush numbers only) are also prepared to help manage production scheduling and cash requirements, but these forecasts are not part of the measurement and reward.

If there is a significant blip in performance (and the fast/open information system would flag this immediately), then a **performance review** would be signalled. Such reviews focus on the effectiveness of action plans and what further improvements need to be made. The review might even consider whether the targets (and measures) themselves are still appropriate.

There are a number of reasons why this approach is **successful**.

(a) Managers are not punished for failing to reach the full target.

(b) The use of the balanced scorecard ensures that all key perspectives are considered.

(c) Because managers set their own targets and plan the changes needed to achieve them, real ownership and commitment are built. Feedback and learning takes place as a result of the tracking of action plans. (Contrast this with numerical variances that tell managers nothing about what to do differently in the future.)

(d) Beating internal and external competitors is a constant spur to better performance.

(e) Managers share in a bonus pool that is based on share price or long-term performance against a basket of competitors. Resource and knowledge sharing is therefore encouraged.

3.7 Leading and lagging indicators

An important element of performance management is developing appropriate performance metrics. As far as possible, performance measures should be linked to a company's strategy, value drivers and CSFs, as well as short-term and long-term goals.

Many companies now adopt the balanced scorecard concept – or a similar multi dimensional performance model – with performance measures in a number of categories, such as financial, operations, customers and human resources.

However, while it can be beneficial to monitor performance in a range of areas, managers should avoid measuring too many aspects of performance. Instead they must concentrate on the metrics that are most important, in order to avoid succumbing to information overload.

Nonetheless, when identifying which metrics to measure, it is important to balance traditional financial measures with non-financial ones.

In particular, measures should be selected to provide a balance of leading and lagging indicators.

Most traditional, financial performance measures are lagging indicators, connected with past performance and past events. However, such indicators do not necessarily help managers or directors to understand the future challenges an organisation will face.

By contrast, leading indicators can point to future performance successes or problems. For example, declining customer satisfaction levels could point to future revenue issues and a longer-term erosion of the value of a company's brand.

3.8 Non-financial performance measures

Definition

Non-financial performance measures: These are measures of performance based on non-financial information which may originate in, and be used by, operating departments to monitor and control their activities without any accounting input. Non-financial performance measures may provide a more timely indication performance than financial measures do.

The following are some examples of non-financial performance measures:

Areas assessed	Performance measure
Service quality	Number of complaints Proportion of repeat bookings Customer waiting time On-time deliveries
Production performance	Set-up times Number of suppliers Days' inventory in hand Output per employee Material yield percentage Schedule adherence Proportion of output requiring rework Manufacturing lead times
Marketing effectiveness	Trend in market share Sales volume growth Customer visits per salesperson Client contact hours per salesperson Sales volume forecast versus actual Number of customers Customer survey response information
Personnel	Number of complaints received Staff turnover Days lost through absenteeism Days lost through accidents/sickness Training time per employee

Interactive question 2: Hotel

The Taybridge Hotel is a luxury hotel, on the outskirts of a town in the south west of England. The local area is popular with tourists. Like all of the other hotels in the area, the Taybridge is privately owned, and is not part of a chain. The Taybridge has a restaurant and a gym, which are for residents' use only.

Although the local area is popular with tourists, there is significant seasonal variation in demand for hotel rooms. As a result, the hotel changes its room rates throughout the year, based on expected levels of demand, so that rates are higher in the peak summer months, and lower in the less busy winter months.

At the end of their stay, all customers are invited to complete a short survey asking them how satisfied they were with their stay, the reasons for this, and the likelihood of them recommending the Taybridge to their family and friends.

Feedback from these surveys shows that the comfort of the Taybridge's rooms, and the quality and efficiency of customer service are key factors influencing customer satisfaction. The surveys also indicate that guests' satisfactions have a significant impact on the likelihood of them making repeat bookings and recommending the Taybridge to their friends.

The Taybridge has just appointed a new general manager who has expressed concern about the limited amount of management information. In particular, he believes the Taybridge should be monitoring its performance against key performance indicators (which it currently does not do).

Requirement

Suggest some suitable performance measures for the Taybridge Hotel.

See **Answer** at the end of this chapter.

The increasing importance of **social responsibility** and **sustainability** highlights additional areas where non-financial performance measures may be required. Many organisations now produce Corporate Social Responsibility Reports, looking at an organisations' social and **environmental impact**.

In order to produce these reports, organisations will have to monitor their performance against a range of non-financial measures (for example greenhouse gas emissions, water usage).

We will look at social responsibility and sustainability in more detail in section 5 of this Chapter, where we also consider Integrated Reporting. Integrated Reporting identifies four categories of 'capital' which an organisation uses to create value (economic, human, natural and social), so, in turn, an organisation may need to develop performance measures which help it evaluate how well it is using the different 'capitals'.

3.8.1 The advantages and disadvantages of non-financial measures

Unlike traditional variance reports, non-financial measures can be provided **quickly** for managers, per shift or on a daily or hourly basis, as required. They are likely to be **easy to calculate**, and **easier for non-financial managers to understand** and therefore to use effectively.

There are problems associated with choosing the measures and there is a danger that **too many such measures could be reported**, overloading managers with information that is not truly useful, or that sends conflicting signals. There is clearly a need for the information provider to work more closely with the managers who will be using the information to make sure that their needs are properly understood.

Research on more than 3,000 companies in Europe and North America has shown that the strongest drivers of competitive achievement are the intangible factors, especially **intellectual property, innovation** and **quality**. Non-financial measures have been at the forefront of an increasing trend towards **customer focus** (such as TQM), **process re-engineering** programmes and the creation of **internal markets** within organisations.

Arguably, some non-financial measures may be **less likely to be manipulated** than traditional profit- related measures and they should, therefore, **offer a means of counteracting short-termism**, since short-term profit at any expense is rarely an advisable goal.

However, while there may be a danger of manipulation in financial information systems, which may be exacerbated by inappropriate reward systems (eg, a 'bonus culture'), this does not mean that financial performance indicators are inherently more vulnerable to manipulation than non-financial performance indicators. For example, which are likely to be subject to the more stringent controls: financial or non-financial information systems?

Remember also, the ultimate goal of commercial organisations in the long run is likely to remain the maximisation of profit, and so the financial **aspect cannot be ignored**.

A further danger of non-financial measures is that they might lead managers to pursue detailed operational goals and become blind to the overall strategy in which those goals are set.

Consequently, using a combination of financial and non-financial measures is likely to be most successful; as, for example, in the balanced scorecard.

3.8.2 The performance measurement manifesto

Eccles argues that financial measures alone are inadequate for monitoring the progress of business strategies based on creating customer value, satisfaction and quality, partly because they are **historical** in nature and partly because they cannot measure current progress with such strategies directly. He also notes the impulse to **short-termism** given by such measures.

There is a need for a performance measurement system that includes both financial and non- financial measures. The measures chosen must be **integrated**, so that the potential for discarding non-financial measures that conflict with the financial ones is limited. Eccles argues that too often firms prioritise financial measures above non-financial ones, and if the two clash the financial priorities take priority. However, Eccles points out that **non-financial measures** such as quality, customer satisfaction and market share are now equally important as purely financial measures.

Eccles says that the development of a good system of performance measurement requires activity in five areas.

(a) The information architecture must be developed. This requires the identification of performance measures that relate to strategy and the gradual, iterative development of systems to capture the required data.

(b) An appropriate IT strategy must be established.

(c) The company's incentives system must be aligned with its performance measures. Eccles proposes that qualitative factors should be addressed by the incentive system.

(d) External influences must be acknowledged and used. For example, benchmarking against other organisations may be used, while providers of capital should be persuaded to accept the validity of non-financial measures.

(e) Manage the implementation of the four areas above by appointing a person to be responsible overall as well as department agents.

3.9 Value for money audits

Value for money audits can be seen as being of particular relevance in not for profit organisations. Such an audit focuses on **economy, efficiency** and **effectiveness**. These measures may be in conflict with each other. To take the example of higher education, larger class sizes may be **economical** in their use of teaching resources, but are not necessarily **effective** in creating the best learning environment.

3.10 The balanced scorecard

A key theme so far has been that financial measurements do not capture all the strategic realities of an entity but, equally, it is important that financial measurements are not overlooked. A failure to attend to the 'numbers' can rapidly lead to a failure of the business. However, financial measurements do not capture all the strategic realities of a business, so businesses need to look at both financial and non-financial measures.

Professional skills focus: Concluding, recommending and communicating

When drawing conclusions and making recommendations it is important that you consider all the relevant facts and information, including both financial and non-financial data. The balanced scorecard is a useful model to encourage you to consider financial and non-financial elements of performance.

Context example: Business failures

During the global recession in 2008 and 2009 there were stories about business failures almost every day in the newspapers. These articles often mentioned the reason given for the failure, and the state of the economy was often viewed as the number one cause.

However, this tended to obscure a rather more painful truth. The reason for the business failure was usually the business itself.

An article in a local newspaper in Tupelo, Mississippi, illustrated this point. The article looked at three food outlets in the town which had failed in the recession, and noted the owners' reasons for the failure. In each case, the reasons given were 'poor timing and the economy'.

However, customers who had been to the businesses noted that all three had three things in common: high prices, poor service and mediocre food.

One in particular – a sandwich shop – stood out. It had an ordering process that involved standing in line to order, and then moving to another station and standing in line to repeat your order and pay for it. The total wait for an expensive and really poor take-out sandwich was over 45 minutes. The shop was located in a mall, and was four units away from a Mexican restaurant that was not only surviving but positively thriving. So it seems the economy was not the main reason for business failure after all!

The more pertinent point is that businesses – and particularly small businesses – are often launched and operated without the resources needed to succeed. To be successful, a business needs to supply a cost-effective solution to customer needs.

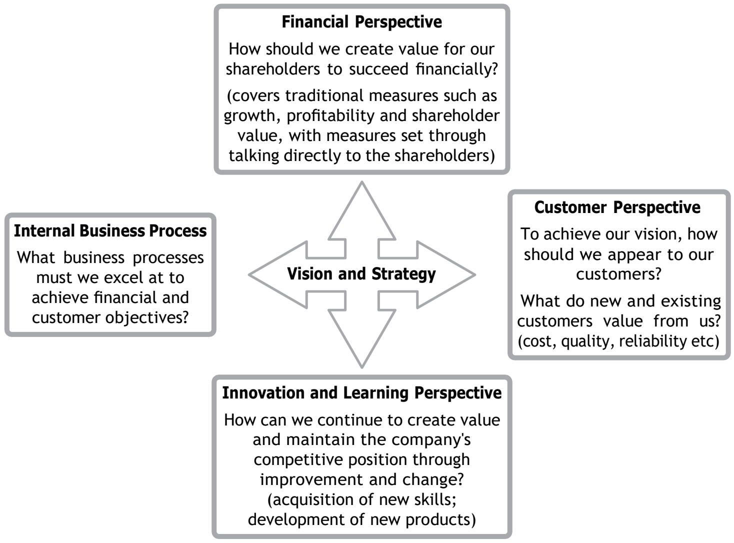
If businesses do not understand their markets, their customers or their competition, and if they don't have a clear vision or direction which is executed by management, they are likely to fail.

(Adapted from: Harshberger, M. (2010) *Who's to blame for most business failures*, 19 January, www.articlesbase.com)

The balanced scorecard has been developed to try to integrate the different measures of performance, highlighting the linkages between operating and financial performance. You should already be familiar with the balanced scorecard from Business Strategy and Technology, but as a reminder the scorecard offers four perspectives on performance:

- financial
- customer
- internal business
- innovation and learning

Figure 4.2: Balanced scorecard (after Kaplan & Norton)



CHAPTER 4

The balanced scorecard seeks to translate **mission** and **strategy** into **objectives** and measures, and focuses on **four different perspectives**. For each of the four perspectives, the scorecard aims to articulate the **outcomes** an organisation desires, and the **drivers** of those outcomes.

Performance targets are set once the key areas for improvement have been identified, and the balanced scorecard is the **main monthly report**.

The scorecard is **balanced** in the sense that managers are required to think in terms of all four perspectives, to **prevent improvements being made in one area at the expense of another**.

Broadbent and Cullen identify the following important features of this approach:

- it looks at both internal and external matters concerning the organisation
- it is related to the key elements of a company's strategy
- financial and non-financial measures are linked together

Kaplan and Norton have found that organisations are using the balanced scorecard to:

- identify and align strategic initiatives
- link budgets with strategy
- align the organisation (structure and processes) with strategy
- conduct periodic strategic performance reviews with the aim of learning more about, and improving, strategy

Kaplan and Norton suggest that using the balanced scorecard can also help an organisation improve its strategic performance:

(a) The process of identifying key outcomes and drivers should help individuals and divisions become more aware of how their work fits in with the organisation's strategy.

(b) Giving individuals and divisions regular reports on their performance against key measures will help them monitor their own performance, and identify areas for improvement.

(c) The scorecard as a whole should provide senior management with regular information on how their organisation is performing against key measures, and therefore how well strategies are being implemented.

3.11 Linkages

Disappointing results might arise from a **failure to view all the measures as a whole**. For example, increasing productivity means that fewer employees are needed for a given level of output. Excess capacity can be created by quality improvements. However, these improvements have to be exploited (eg, by increasing sales).

The financial **element** of the balanced scorecard reminds executives that improvements in quality, response time, productivity or new products only benefit a company when they are translated into improved financial results, or if they enable the company to achieve a sustainable competitive advantage.

3.12 Strategic application of the balanced scorecard

If an organisation decides to introduce and use a balanced scorecard, it will then have to decide what KPIs should be collected, and how these should be reported in a way that helps the organisation make better decisions.

The choice of KPIs could be informed via the hierarchy identified by Robert Anthony (see section 2.1). Once the organisational strategy has been defined, this can be distilled into a sequence of vertically consistent **objectives**. These objectives should be orientated in a manner that allows the organisation to improve performance in the business critical processes that support its **CSFs** (those things the organisation must excel in to be competitive). The balanced scorecard can then be used to track performance against the CSFs via the KPIs selected.

It follows, therefore, that the balanced scorecard can be used to track performance at the hierarchical levels identified by Anthony. Thus, some KPIs will be derived to track operational efficiency; others, to assess management's tactical performance; and still others, to illustrate the success of the overall organisational strategy.

3.13 Example indicators

The exact measures an organisation uses will depend on its context, but the indicators below suggest some possible measures for each scorecard category:

Financial perspective
Increase monthly turnover
Increase monthly operating profit (by division)
Improve asset utilisation
Increase market share
Increase ROI
Increase cash flow
Increase market share
Number of new customers attracted
Extend product range
Customer satisfaction rating
Number of recommendations or referrals
Customer retention rates
Level of returns/refunds
On-time delivery
Percentage of sales from new products (introduced in the last two years)

Internal business processes
Reduce inventory levels
Reduce lead times
Minimise wastage/errors
Actual delivery dates of new products/services in line with plan
Reliability and usability (for websites in online business)
Security of transactions and credit card handling

Innovation and learning perspective (learning and growth)
Develop new products
Time to market (time taken for new product ideas to become 'live')
Percentage of sales from new products (introduced in the last two years)
Number of new products introduced (< last two years) compared to competitors
Ideas from employees
Adaptability and flexibility of staff
Reward and recognition structure for staff

3.14 Using the balanced scorecard

(a) Like all performance measurement schemes, the balanced scorecard can influence behaviour among managers to conform to that required by the strategy. Because of its comprehensive nature, it can be used as a wide-ranging driver of organisational change.

(b) The scorecard emphasises processes rather than departments. It can support a competence- based approach to strategy, but this can be confusing for managers and may make it difficult to gain their support.

(c) Deciding just what to measure can be difficult, especially since the scorecard vertical vector lays emphasis on customer reaction. This is not to discount the importance of meeting customer expectations, but purely to emphasise the difficulty of establishing what they are.

3.15 Strategy maps

As an extension to the balanced scorecard, Kaplan and Norton also developed the idea of strategy maps, which could be used to help implement the scorecard more successfully.

Strategy maps identify six stages:

(a) **Mission and objectives**. Identify the organisation's mission and its key objectives.

(b) **Value creation**. In the light of the key objectives identified, determine the main ways the organisation creates value.

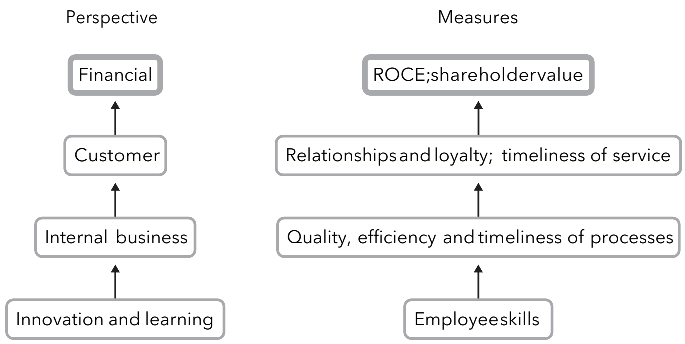
(c) **Financial perspective**. Identify financial strategies to support the overall objective and strategy.

(d) **Customer perspective**. Clarify customer-orientated strategies to support the overall strategy.

(e) **Internal processes**. Identify how internal processes support the strategy and help to create value.

(f) **Innovation and learning**. Identify the skills and competences needed to support the overall strategy and achieve the objectives.

The sequence of these stages also suggests there is a **hierarchy among the different perspectives**. The financial perspective is the highest level perspective, and the measures and goals from the other perspectives should help an organisation achieve its financial goals.



In this way, the strategy map highlights how the four perspectives of the scorecard help create value, with the overall aim of helping an organisation achieve its objectives. It can also help staff appreciate the way that different elements of performance management are linked to an organisation's overall strategy.

However, it is also important to recognise that the balanced scorecard only **measures** performance. **It does not indicate that the strategy an organisation is employing is the right one**. Therefore, if improvements in operational performance do not result in improved financial performance, managers may need to rethink the company's strategy or its implementation plans; for example, whether the areas which have been targeted for operational improvements really are the ones which are critical in delivering value for the organisation.

3.16 Problems with using the balanced scorecard

As with all techniques, problems can arise when the balanced scorecard is applied.

Problem	Explanation
Conflicting measures	Some measures in the scorecard, such as research funding and cost reduction, may naturally conflict. It is often difficult to determine the balance which will achieve the best results.
Selecting measures	Not only do appropriate measures have to be devised but the number of measures used must also be agreed. Care must be taken that the impact of the results is not lost in a sea of information. The innovation and learning perspective is, perhaps, the most difficult to measure directly, since much development of human capital will not feed directly into such crude measures as rate of new product launches or even training hours undertaken. It will, rather, improve economy and effectiveness and support the achievement of customer perspective measures. When selecting measures, it is important to measure those which actually add value to an organisation, not just those that are easy to measure.
Expertise	Measurement is only useful if it initiates appropriate action. Non-financial managers may have difficulty with the usual profit measures. With more measures to consider, this problem will be compounded. Measures need to be developed by someone who understands the business processes concerned.
Interpretation	Even a financially trained manager may have difficulty in putting the figures into an overall perspective.

Problem	Explanation
Management commitment	The balanced scorecard can only be effective if senior managers commit to it. If they revert to focusing solely on the financial measures they are used to, then the value of introducing additional measures will be reduced. In this context, do not overlook the cost of the scorecard. There will be costs involved in data gathering and in measuring the performance of additional processes.

It may also be worth considering the following issues in relation to using the balanced scorecard:

(a) It does not provide a single aggregate summary performance measure. For example, part of the popularity of ROI or return on capital employed (ROCE) comes from the fact that they provide a convenient summary of how well a business is performing.

(b) In comparison to measures like economic value added, there is no direct link between the scorecard and shareholder value.

(c) Introducing the scorecard may require a shift in corporate culture; for example, in understanding an organisation as a set of processes rather as departments.

(d) Equally, implementing the scorecard will require an organisation to move away from looking solely at short-term financial measures, and focus on longer-term strategic measures instead.

The scorecard should be used flexibly. The process of deciding what to measure forces a business to clarify its strategy. For example, a manufacturing company may find that 50–60% of costs are represented by bought-in components, so measurements relating to suppliers could usefully be added to the scorecard. These could include payment terms, lead times and quality considerations.

3.17 Assurance and performance indicators

We have mentioned a number of potential performance measures in this chapter but, in order for an entity to use KPIs as a basis for management decision making and control, it needs to be confident that the indicators are calculated reliably, and consistently, across different periods or divisions.

Many companies now publish a selection of KPIs in their annual reports. By definition, these KPIs should focus on the aspects of performance that are most important to the continued success of the company.

Some KPIs may be financial (such as ratios based on the financial statements) but the majority of KPIs should be non-financial. Therefore, despite the insight they can give into a company's performance – and the fact that they are likely to be picked up on and discussed by analysts and investors – these

KPIs will not have been audited as part of the financial statements. Similarly, the systems which generate these non-financial KPIs are unlikely to have been scrutinised by internal or external auditors in the way that financial systems have been. Although, in accordance with ISA 720 (Revised), *The Auditor's Responsibilities Relating to Other Information* the auditor is required to read the other information in an annual report to ensure that information is not materially inconsistent with the audited financial statements, from both an internal (management) and external perspective it will be valuable for entities to seek additional assurance over the KPI figures it reports.

The assurance approach towards KPIs should consider how the KPIs have been defined, how they have been calculated and why they are reported.

The ICAEW Audit and Assurance Faculty paper *The journey milestone 1: assurance over key performance indicators* suggests that the process of providing assurance over KPIs should be relatively straightforward. An entity's management have already chosen the indicators, developed a rationale for the use of each indicator, and a method for calculating it. An independent practitioner can then gather evidence to support an opinion on whether the KPIs have been prepared in accordance with the disclosed method of calculation.

The ICAEW paper suggests that there are three elements for an assurance provider to consider:

- The design of the methodology – Is the methodology used to prepare the KPI appropriate for providing an indicator that will give a robust measure of an aspect of performance?
- The implementation of the methodology – Have the calculations in relation to the indicator been carried out correctly?
- The quality of the raw data – Have the underlying inputs into the calculation been correctly derived from an appropriate source?

These elements and questions also highlight the following, important points:

Definition of the KPI – When considering the design of the methodology, an assurance provider needs to assess whether the methodology used to measure the KPI is consistent with the definition of the KPI. The ICAEW paper illustrates this point with the following example: If a railway company decided to exclude cancelled trains from its definition of 'delays', and if it did so without amending its definition of the indicator, its apparent performance in relation to 'train delays' would be improved, despite passengers being left waiting on platforms for long periods due to trains being cancelled.

Quality of the raw data – Even if the methodology used is appropriate and is implemented correctly, a KPI could still be misstated as the data being used to calculate it is inaccurate – either due to poorly designed systems, or ineffective controls over those systems. Therefore testing the design and operation of the systems which produce the underlying data can be an important part of gaining assurance over the fair presentation of KPIs. This testing can also provide a degree of ongoing comfort over the presentation of the same KPIs over a period of time.

Choice of KPIs

In addition to checking the accuracy of the indicators disclosed, an assurance provider should also consider the choice of KPIs, together with the context in which they are presented. This could be complicated because the assurance provider will need to consider what other KPIs could have been included, and therefore whether the selection of KPIs reported on might distort a reader's impression of an entity's performance.

In this context, an assurance provider might need to consider the following questions:

- Is each KPI described in a way which is not misleading, and allows an informed user to make worthwhile comparisons, year on year, and with other businesses?
- Are KPIs linked in the narrative reporting to underlying strategic imperatives, as well as associated targets and trends, thereby giving the reader sufficient context to understand how they relate to value creation within an entity?

Assurance work

The ICAEW paper highlights that, unlike financial statements, which are prepared in accordance with common frameworks (eg, IFRSs), KPIs are often intended to be specific to the entity in question, meaning that entities in the same industry may measure indicators on a different basis – even though they are nominally the same. Assurance practitioners will also need to vary their work to suit the indicators and measurement criteria that are chosen by different entities.

This means that it is important for users that measurement criteria are clear, and it also means that the scope of the work performed may need to be disclosed in more detail than for a statutory audit.

The lack of a standard benchmark could also present practical issues for an assurance engagement. As we noted above, when financial statements are being audited there is a benchmark against which the auditor can test the statements – that they have been properly prepared in accordance with the appropriate financial reporting standards. However, the absence of a significant body of established practice means that there could be a range of different, but acceptable, measurement techniques for measuring non-financial information.

In order to produce an assurance report on KPIs, the practitioner will need to identify an appropriate benchmark against which they can report their conclusion. This may be subjective, and needs to be agreed with the client and/or other stakeholders.

Before starting to check that they have been calculated correctly, a practitioner will first also have to establish that the KPIs constitute appropriate subject matter for an assurance engagement. KPIs will be appropriate subject matter for an assurance engagement if they:

- Are identifiable, and capable of consistent evaluation or measurement in relation to suitable criteria. (The IAASB Assurance Framework indicates that criteria which are suitable for an assurance engagement should exhibit the following characteristics: relevance, completeness, reliability, neutrality and understandability.)
- Can be subjected to procedures which enable sufficient, appropriate evidence to be gathered to support a conclusion.

In the absence of suitable benchmarks for reporting on KPIs – or if sufficient evidence cannot be obtained to support an assurance opinion – then an agreed-upon procedures (AUP) engagement may be appropriate, rather than an assurance engagement. (Agreed-upon procedures are discussed in more detail in the chapter Data analysis of this Workbook.)

Interactive question 3: KPIs

The directors of Kaypea Plc have been keen to increase the disclosure in the company's annual report about its non-financial KPIs. The directors believe that providing this information will improve investors' understanding of the company's business model and the way that Kaypea generates value, as well as helping investors to identify how well the company is performing against its objectives.

However, Kaypea's audit committee has expressed concern that the KPIs selected are not appropriate. The audit committee has asked Kaypea's auditor to carry out an independent review as to whether the KPIs are appropriate.

Requirement

What factors or characteristics should the auditor consider when assessing the appropriateness of Kaypea's KPIs?

See **Answer** at the end of this chapter.

4 Rewards, behaviour and performance

Section overview

- Formulating executive pay is a difficult balancing act. The market for top executives is truly global and, with the transparency afforded by financial reporting, top directors are able to compare their total emoluments very easily. From the company's and investors' perspective, there is a clear need to balance pay with performance, while remaining competitive as an employer.
- Pay for non-executive staff is a similarly tricky balancing act. From the perspective of both the employer and the employee, both will want to feel they are getting value for money, while investors will again want to see any increases in salary cost as being commensurate with increases in shareholder wealth.

In this section we look at a range of issues surrounding remuneration and reward. A key issue to consider in relation to performance management is how remuneration and reward packages influence directors' and employees' performance. We will look at this issue again in the chapter Human resource management in the context of HRM.

4.1 Executive pay

The perception that some directors are being paid excessive salaries and bonuses has been seen as one of the major corporate abuses for a large number of years. It is thus inevitable that the corporate governance provisions have targeted it. The **Greenbury Committee** in the UK set out principles which are a good summary of what remuneration policy should involve.

- Directors' remuneration should be set by independent members of the board.
- Any form of bonus should be related to measurable performance or enhanced shareholder value.
- There should be full transparency of directors' remuneration, including pension rights, in the annual accounts.

What the Greenbury Report was, in part, recognising was one of the undesirable side effects of **agency theory** and the **principal-agent problem** we mentioned in the chapter Strategic implementation of this Workbook. In the context of executive pay, the directors are considered to be the agents of the company, and as such should be acting in the best interests of the principals (the shareholders) and not themselves. If the agents are allowed to set their own pay, there is an inevitable conflict of interest whereby the agent (directors) will be tempted to pay themselves far in excess of what their performance merits. As such, the remuneration committee acts as a barrier against the principal-agent problem.

4.2 The remuneration committee

The remuneration committee plays the key role in establishing remuneration arrangements. In order to be effective, the committee needs to **determine** both the organisation's **general policy** on the **remuneration of executive directors** and **specific remuneration packages** for each director.

Measures to ensure that the committee is **independent** include not just requiring that the committee is staffed by non-executive directors, but also placing limits on the members' connection with the organisation. Measures to ensure independence include stating that the committee should have no personal interests other than as shareholders, no conflicts of interest and no day to day involvement in running the business.

4.3 Remuneration packages

Packages will need to **attract, retain and motivate directors** of sufficient quality, while at the same time taking into account shareholders' interests. However, assessing executive remuneration in an imperfect market for executive skills may prove problematic.

The link between remuneration and company performance is particularly important. Recent UK guidance has stressed the need for the performance-related elements of executive directors' remuneration to be **stretching**, **designed to align their interests with those of shareholders** and **promote the long-term success of the company**. Remuneration incentives should be **compatible with risk policies and systems**, and **criteria for paying bonuses** should be **risk adjusted**.

Discussion is often in terms of designing a remuneration package that encourages directors to avoid excessive risks. However, directors' remuneration can also be designed to encourage cautious directors to take more risks. Shareholders, who hold diversified portfolios, may be keener for a company that undertakes a risky investment than its directors, whose livelihood may be threatened if the investment is not a success.

4.4 Establishing remuneration arrangements

Issues connected with remuneration policy may include the following:

(a) The pay scales applied to each director's package.

(b) The proportion of the different types of reward within each package.

(c) The period within which performance-related elements become payable.

(d) Determining what proportion of rewards should be related to measurable performance or enhanced shareholder value, and the balance between short- and long-term performance elements.

(e) Transparency of directors' remuneration, including pension rights. A simple scheme, such as basing a bonus on profit, may make directors' actions easier to understand than a more complicated scheme where the basis for the total reward is unclear. However, a simple scheme may be easier to manipulate through creative accounting.

When establishing remuneration policy, boards have to take into account the position of their **company relative to other companies**. However, the UK Corporate Governance Code points out the need for remuneration committees to treat such comparisons with caution, in view of the risk of an upward ratchet in remuneration levels, with no corresponding improvement in performance.

As you can see, in line with other sections of the UK Code, the guidance provides only a framework for decision making, rather than a prescribed formula. Inevitably, giving such wide scope for setting pay has resulted in some controversial decisions.

Context example: BP shareholder vote

In April 2016,BP shareholders voted against the chief executive's £13.8 million pay deal for 2015.

59.1% of shareholders voted against Bob Dudley's remuneration package, with only 40.1% supporting it. Although the vote was not binding, and therefore did not result in any immediate changes to Mr Dudley's package, the scale of the vote still sent a clear message to boards to change their approach to executive pay.

One of the major causes of shareholder concern about Mr Dudley's proposed remuneration package was that it represented a pay rise for him at the end of a year in which BP profits fell and thousands of staff lost their jobs.

The British shareholder advisory group ShareSoc, which had recommended members vote against the package said, 'We consider the pay of the CEO to be simply too high, and particularly so in a year when the company suffered a record loss of $6.4 billion… Even so his pay went up by 20 percent.'

However, BP defended the deal, saying that executives performed as well as they could despite a fall in the oil price. In a statement, BP argued, 'The oil price is outside BP's control, but executives performed strongly in managing the things they could control and for which they are accountable.

BP surpassed expectations on most measures and directors' remuneration reflects this.'

In addition, Mr Dudley's pay package for 2015 was boosted by a $3.5 million pension adjustment to bring payments from his US scheme in line with UK regulations.

Based on: Sheffield, H. (2016) 'BP shareholders vote against chief executive Bob Dudley's £14m pay deal', *The Independent,* 14 April, www.independent.co.uk

Context example: Executive pay

A survey by the High Pay Centre showed that executives in Britain's largest public companies earned an average of £5.5 million in 2015, and enjoyed a 10% pay rise while wages in the rest of the economy lagged far behind. (According to the Office for National Statistics, wages across the UK as a whole rose 2% in 2015.)

The High Pay Centre's director noted that there is seemingly no end in sight for the continuing rise of chief executive pay packages, because – despite the occasional flurry from the more active shareholders – board continue to award ever larger pay awards to their most senior executives.

According to the survey, leading company bosses now earn (including pensions and bonuses) over 120 times more than their employees. A survey carried out by PwC for its report, *Time to Listen* (July 2016), identified that most people think a CEO should earn no more than 20 times average earnings. The typical pay ratios among FTSE-100 companies for CEOs compared to average earnings are in the region of 150:1.

The widening discrepancy between average wages and boardroom pay is becoming an increasingly important issue for major investors, and is leading to calls for companies to provide more detail about their pay ratios.

The UK government has introduced laws under which all quoted companies with more than 250 employees are required to disclose the ratio of their CEO's total remuneration to the median, 25th and 75th percentile full-time equivalent remuneration of their UK employees. The company also has to explain the reason for changes from year to year, and whether the company believes that this ratio is consistent with the company's wider policies on employee pay, reward and progression.

As well as introducing the publication of pay ratios, the new rules also require listed companies to show what effect an increase in share prices will have on executive pay, in order to inform shareholders when they are voting on long-term incentive plans.

Companies have been required to disclose the pay ratios for accounting periods starting on or after 1 January 2019.

Announcing the new rules, the business secretary acknowledged the anger of workers and shareholders where bosses' pay is out of step with company performance.

One notable example of this was the £75 million bonus which house-builder Persimmon handed its chief executive at the time, Jeff Fairburn. Critics claim Persimmon's performance had benefitted significantly from the taxpayer-backed 'help-to-buy' scheme which boosted new house sales, so it was unfair for management to benefit from this in their bonuses.

4.5 Basic salary

Basic salary will be in accordance with the terms of the directors' **contract of employment**, and is not related to the performance of the company or the director. Instead, it is determined by the **experience** of the director and what other companies might be prepared to pay (the **market rate**).

4.6 Performance-related bonuses

Directors may be paid a cash bonus for good (generally accounting) performance. To guard against excessive pay-outs, some companies impose limits on bonus plans as a fixed percentage of salary or pay.

Transaction bonuses tend to be much more controversial. Some chief executives get bonuses for acquisitions, regardless of subsequent performance, as well as further bonuses for spinning off acquisitions that have not worked out.

Alternatively, **loyalty bonuses** can be awarded merely to reward directors or employees for remaining with the company.

As we have already noted in section 4.3, the link between remuneration and company performance is particularly important. However, non-executive directors should **not** be remunerated by shares or other performance-related elements, to preserve their independence.

4.7 Shares

Directors may be awarded shares in the company with limits (a few years) on when they can be sold in return for good performance.

4.8 Share options

Share options give directors and possibly other managers and staff the right to purchase shares at a specified exercise price after a specified time period in the future. The options will normally have an exercise price that is equal to, or slightly higher than, the market price on the date that the options are granted. The time period (vesting period) that must pass before the options can be exercised is generally a few years. If the director or employee leaves during that period, the options will lapse.

The options will generally be exercisable on a specific date at the end of the vesting period.

The UK Corporate Governance Code states that shares granted, or other forms of remuneration, should **not vest or be exercisable in less than three years**. Directors should be encouraged to hold their shares for a further period after vesting or exercise. If directors or employees are granted a number of options in one package, these options should not all be able to be first exercised at the same date.

If the price of the shares rises so that it exceeds the exercise price by the time the options can be exercised, the directors will be able to purchase shares at lower than their market value. Share options can therefore be used to **align management and shareholder interests**, particularly options held for a long time when value is dependent on long-term performance. The main danger is that the directors will have an incentive to manipulate the share price if a large number of options are due to be exercised.

Options can also be used to encourage cautious directors to take **positive action to increase the value of the company**. Shareholders should be holding a wide portfolio that diversifies away unsystematic risk, but directors have less opportunity to diversify their careers and are dependent on their recommendations being successful. An investment opportunity that would attract shareholders because the returns are high relative to the systematic risk may be rejected by directors because they are exposed to the total risks of it going wrong.

Shareholders therefore need to find a way of encouraging directors to accept the same risks as they would tolerate themselves. Share options can assist in this process because, for options, the upside risk is unlimited – there is no boundary to how much the share price can exceed the exercise price.

However, initially at least, there is no corresponding downside risk. If the share price is less than the exercise price, the intrinsic value of options will be zero and the options will lapse. In these circumstances, it will make no difference how far the share price is below the exercise price. If directors are awarded significant options, the value of these options will rise if a risky investment succeeds and they will not suffer any loss on their options if the investment fails. However, if the options become in the money over a period of time, then directors may become risk averse as they stand to lose the accumulated gains on the options if an investment fails.

The performance criteria used for share options are a matter of particular debate. Possible criteria include the company's performance relative to a group of **comparable companies**.

There are various tricks that can be used to reduce or eliminate the risk to directors of not getting are ward through options. Possibilities include grants that **fail to discount for overall market gains**, or are cushioned against loss of value through **compensatory bonuses** or **repricing**.

The UK Corporate Governance Code states that non-executive directors should not normally be offered share options, as options may impact on their independence.

4.8.1 Share options and IFRS 2

Newly established entities with limited cash resources may use the promise of share growth as a way to attract and retain high-calibre individuals. Before the publication of IFRS 2,*Share-based Payment*, the provision of, say, a share option was not recognised at all in the employing entity's income statement under international accounting standards. This led to significant employee benefits provided by an entity not being recognised in its financial statements.

IFRS 2 requires an expense representing the **fair value** of the options to be recognised over the period from the grant date to the vesting date.

The fair value is initially ascertained using a model such as Black-Scholes and includes the following variables:

- market price of shares
- exercise price
- volatility
- risk-free rate of return
- length of option

However, additional vesting conditions and long time periods make employee options more difficult to value than traded options.

We will look at share-based payments in more detail in the chapter Human resource management of this Workbook.

4.8.2 Underwater options

While share options can be a useful tool in helping to motivate employees to work hard and stay loyal to a company, this will only be effective if the exercise price is below the market price at the date of maturity. For instance, an employee of A plc who holds the right to purchase 1,000 shares at £2.50 each is left without any benefit if A's shares are trading at £2.20 on the date the option matures. In such circumstances, the option is worthless and is referred to as being '**underwater**' (ie, where it is significantly out of the money). Of course, the employee is able to track the real-time share price versus the price of their options at all times and may therefore realise well in advance that the benefit will not come to fruition. In such circumstances, the motivational impact of the option scheme may be nil or negative.

A further negative aspect of share options is that they may tie unhappy employees into an ongoing employment relationship past the point at which they wish to leave. For instance, an unhappy worker may stay in a post and be consequently unproductive, merely to stay on long enough to collect a share option payout.

4.9 Benefits in kind

Benefits in kind could include transport (eg, a car), health provisions, life assurance, holidays, expenses and loans. The remuneration committee should consider the benefit to the director and the cost to the company of the complete package. Also the committee should consider how the directors' package relates to the package for employees. Ideally, perhaps the package offered to the directors should be an extension of the package applied to the employees.

Loans may be particularly problematic. Some high-profile corporate scandals have included a number of instances of abuses of loans, including a $408 million loan to WorldCom Chief Executive Officer, Bernie Ebbers. Using corporate assets to make loans when directors can obtain loans from commercial organisations seems very dubious, and a number of jurisdictions prohibit loans to directors of listed companies.

4.10 Pensions

Many companies may pay pension contributions for directors and staff. In some cases, however, there may be separate schemes available for directors at higher rates than for employees. The UK Corporate Governance Code states that, as a general rule, only **basic salary** should be **pensionable**. The Code emphasises that the remuneration committee should consider the pension consequences and associated costs to the company of basic salary increases and any other changes in pensionable remuneration, especially for directors close to retirement.

The Walker report on UK financial institutions responded to concerns raised about aspects of pension arrangements. It recommended that no executive board member or senior executive who leaves early should be given an automatic right to retire on a full pension – that is, through enhancement of the value of their pension fund.

4.10.1 Pensions and strategic decision making

Increasingly pension fund liabilities are influencing strategic decisions.

For private companies with their own pension schemes, the actuarial valuation of the company's pension plan can be a deal-breaker in relation to mergers and acquisitions, as any liability to pay future pensions will pass to the new owners in that any deficit will be charged to the company's future profits.

Under UK pension regulations, employers operating schemes that have deficits have to agree a plan to pay off the deficit with the scheme's trustees, generally by making extra payments.

4.10.2 Accounting for pensions

One of the key financial reporting problems in recent years has been the issue of how to account for large pension deficits arising from, for example, falling equity values, interest rate changes and changes in life expectancy.

Although pension plans are generally operated by independent trustees, they are set up for the benefit of the employing entity's employees, with the employing entity often retaining significant obligations under the plans, which need to be accounted for. In some cases, pension plans may, in substance, be assets and liabilities of the employing entity itself. To ensure that all pension plans are accounted for and presented in a consistent manner, IAS 19,*Employee Benefits* sets out the accounting requirements.

Employees generally receive a number of different benefits as part of their complete remuneration package, and these are also addressed in IAS 19.

A key purpose of IAS 19 is to ensure that employer obligations in respect of future liabilities to pay pensions are recognised in the statement of financial position, less any funds specifically allocated to cover them, making the financial statements more transparent. We will look at employee benefits and the impact they can have on an organisation's financial statements in more detail in the chapter Human resource management of this Workbook.

Context example: The impact of pension deficits on strategic decisions

Royal Mail

In the UK, various governments have considered privatising or part-privatising the Royal Mail, before legislation passed in the Postal Services Act 2011 finally paved the way for the sale of the business. Royal Mail was subsequently privatised through a flotation on the London Stock Exchange on 15 October 2013.

The Postal Services Act stipulated that 10% of the shares should be given to Royal Mail employees with the remainder being sold via an Initial Public Offering.

However, a prerequisite to the privatisation was the transfer of the Royal Mail's pension scheme to the State. It was announced in 2012 that the transfer of the pension fund assets added £28billion to the Exchequer, but that the liabilities of the fund totalled £37.5 billion, which was added to the UK national debt. Without the transfer of the pension fund deficit, no buyers would have been found for the Royal Mail, given that the ongoing business was valued at £3.3 billion when the initial purchase offer was launched. Although some critics argued that Royal Mail had been undervalued at its flotation, with suggestions that its value should have been in the region of £6–8 billion, this is still considerably lower than the £9.5 billion pension scheme deficit.

British Airways and Iberia

In the private sector, a similar issue needed to be resolved between British Airways and Iberia prior to their merger in 2010. British Airways' two final salary schemes had a combined deficit of £3.7 billion at the time of the merger despite having been closed to new members for many years.

The larger scheme, which closed to new members in 2003, still had members contributing into it, as well as pensioners. In 2007, the scheme became less generous to contributing staff, but poor investment returns, as well as changes in life expectancy, outweighed the impact of the scheme changes. In 2010, British Airways agreed new plans with unions to increase pension contributions in order to try to reduce the deficit.

Nonetheless, the reported deficit at the time of the merger with Iberia (£3.7 billion) was around £1billion more than British Airways' market capitalisation. In order to smooth the deal, it was agreed that British Airways' part of the new International Airlines Group would be solely responsible for making additional pension contributions to close the funding gap. The merger agreement also reportedly gave Iberia an option to walk away from the deal if it did not deem British Airways' pension recovery plan to be satisfactory.

The situation at British Airways ahead of the merger was so bad that it led some analysts to joke that 'British Airways was basically a large pension fund that flew a few aeroplanes'.

Financial Times

In July 2015, Pearson sold the Financial Times (FT) to Nikkei, as it moved away from broad-based publishing to focus on its education business. Prior to the deal, bankers and analysts had questioned the logic and timing of the sale. One of the issues analysts highlighted was that, because interest rates were low, Pearson would be likely to have to 'take a big hit' on the FT's pension deficit. One commented, 'In a very low interest rate environment, paying up the pension deficit would make a sizeable dent into the net proceeds – so selling now seems inappropriate.'

Funding of the pension plan had previously been thought to have been a sticking point in any potential sale; but Nikkei agreed to make a contribution of around £90 million to the Pearson group pension plan, and Pearson committed to fund the pension plan to self-sufficiency in the near term. Sources close to the sale said that the Japanese company had asked Pearson several times in recent years whether it would sell the FT, but had previously always been rebuffed. As little as three days before the sale, a spokesperson for Pearson said that a sale of the FT was not a part of its strategy.

However, as one analyst commented shortly after the sale, 'Perhaps the offer of £844 million plus pension contribution was enough to trigger a strategy rethink.'

Based on: Williams, C. (2015) 'Financial Times sale 'would hit Pearson with big pension bill', *The Telegraph*, 20 July, www.telegraph.co.uk [Accessed 9 July 2019]

Williams, C. (2015) 'Nikkei swoops on Pearson's FT in £844m deal', *The Telegraph*, 23 July, www.telegraph.co.uk [Accessed 9 July 2019]

4.11 Considerations for pay at all levels

An effective reward system should facilitate both the **organisation's strategic goals** and the goals of individual employees. Within this, an organisation has to make three basic decisions about monetary reward:

- how much to pay
- whether monetary rewards should be paid on an individual, group or collective basis
- how much emphasis to place on monetary reward as part of the total employment relationship

  However, there is no single reward system that fits all organisations. Irrespective of what type of system is implemented, an organisation should pursue three behavioural objectives:

- it should support recruitment and retention
- it should motivate employees to high levels of performance. This motivation may, in turn, develop into commitment and a sense of belonging, but these do not result directly from the reward system
- it should promote compliance with workplace rules and expectations

4.12 Performance-related pay

Even below the executive level, it may be beneficial for an organisation to link pay to performance (PRP schemes). Should the company be able to find a way to link the personal objectives of its employees to the corporate objectives, then better goal congruence should result. If this is then linked to financial reward for the employees, perhaps in the form of bonuses or share schemes, then there should be mutual benefits for employees, employers and owners.

When designing PRP schemes, a company must be careful not to structure incentives in such a way that poor performance is also rewarded. The financial crisis of 2007 to 2008 showed the dangers of linking reward schemes to performance measures if those **performance measures are poorly designed**. For example, many commentators have suggested that bank bonus schemes in the past encouraged a focus on short-term decision making and risk taking.

A European Commission report into the financial crisis suggested that, 'Excessive risk taking in the financial services industry…has contributed to the failure of financial undertakings… Whilst not the main cause of the financial crises that unfolded…there is widespread consensus that inappropriate remuneration practices…also induced excessive risk taking.'

In this case, there appears to be a direct link between the profit measures (short-term profitability) and the **risk appetite of employees**. Employees were prepared to take greater risks in the hope of making higher profits, and therefore getting larger bonuses.

However, a second potential drawback for an organisation arises if it is unable to reward individuals for good performance (for instance, due to a shortage of funds) because then the link between reward and motivation may break down.

If an **individual's** goals are linked to the objectives of the organisation, then it is clear to the individual how their performance is measured and why their goals are set as they are. However, on occasions there may be a problem in linking individual rewards directly to organisational outcomes, especially if the latter are uncertain.

Another drawback is that, in striving to meet targets, some individuals may become cautious and reluctant to take risks, given that they have a stake in the outcome. Conversely, other individuals may choose riskier behaviour, especially if reward is linked to, say, revenue generation or levels of output.

4.13 Behavioural implications of performance targets

In general terms, performance management acts as a control system for measuring people's achievement against targets. However, in order for the performance management to be beneficial, it is important to select the right measures or targets at the start when performance goals are set.

There is an old adage (often attributed to the management guru, Peter Drucker): 'What gets measured, gets done.' The issue being identified here is that if particular performance targets or objectives are set, employees know that their performance is likely to be appraised against those targets and so they will concentrate on achieving them in preference to other possible aspects of their role. However, this could have negative side effects elsewhere.

For example, in the UK in recent years, there have been concerns that airport passengers have had to wait too long to pass through passport control. If performance targets were set in relation to passenger waiting times (or the length of the queues), staff might respond by trying to speed up the passenger checks they carry out. However, this could lead to a reduction in the quality or thoroughness of the checks being carried out, and in turn could lead to an increased risk of failing to detect passengers who are trying to pass through passport control without valid documentation.

The following two short examples also illustrate the potential negative side effects of setting inappropriate targets:

(a) The manager of a fast food restaurant was striving to achieve a bonus which was dependent on minimising the wastage of chicken or burgers. The manager earned the bonus by instructing staff to wait until the chicken or the burgers were ordered before cooking them. However, the long waiting time which resulted led to a huge loss of customers in the following weeks.

(b) Sales staff at a company met their target sales by offering discounts and extended payment terms and, in some cases, even selling to customers who they felt might never pay. As a result, the staff were meeting their targets at the expense of the company's profitability. However, the sales staff were motivated by a bonus scheme which was based solely on the level of sales they achieved.

Interactive question 4: Reward systems

Stayzee Hotels runs a chain of 20 hotels across the country. Each hotel is wholly owned by the company. Four years ago, the chain was bought by a group of investors who installed a new management team.

The new management team introduced a new reward scheme for the hotel managers in an attempt to motivate managers to improve the revenue and profitability of the chain. The salary package devised for each manager comprised:

- A relatively low fixed salary.
- A bonus payment based on high room occupancy rate. The occupancy rate is the percentage of usable hotel beds filled every night. Managers who achieved more than 90% occupancy rate receive a significant bonus. This target is aimed at keeping the hotel full.
- A smaller bonus payment based on the net profit margin achieved by the hotel. This is aimed at improving the profitability of the hotel.

However, despite these incentives, the overall performance of the company is still declining. Managers are generally achieving a high occupancy rate but are largely failing to deliver higher netmargins. It is also clear that some managers have achieved a high occupancy rate by declaring that some bedrooms were unfit for use or were being used as seminar rooms.

Also, the pursuit of high occupancy and high net profit appears to be affecting the perceived image of the hotel chain. Once regarded as a mid-market hotel chain, the chain now seems to be perceived as a budget buy. A large percentage of bookings are received through the internet broker lastsecondhotels.com and their views of Stayzee's hotels are given below, together with some visitor quotes from their website.

Comments

'Great last-minute bargain ... very easy to get rooms at half the advertised rate''Full of school children on a trip ... will not be using this chain again'

'No internet connections in the rooms or public areas, very disappointing'

'The bath was cracked and the windows were dirty. Cheap, but badly in need of a clean'

'Receptionists were very off-hand and unable to help. Did not seem to know much about the areasurrounding the hotel'

'The staff were surly and uncommunicative. Much worse than last time we visited it. It used to be sucha lovely hotel'

'Cheap, but don't eat there. The price for breakfast was extortionate'

'Cheap and cheerful but don't pay the full rate! Always lots of cheap beds available'

'Food was expensive and dull. The serving staff were uncommunicative, the cutlery was dirty anddamaged. Staff were more interested in talking to each other than to the customers'

'Restaurant food was very expensive and of poor quality. The two nights I stayed there I was the onlycustomer in the restaurant'

Lastsecondhotels.com says: 'Value for money hotels with rooms always available. Perfect for thoselast minute breaks'

Requirement

Analyse the unanticipated consequences of the management reward scheme at Stayzee Hotels.

See **Answer** at the end of this chapter.

4.13.1 Targets and motivation

A key consideration when setting targets is the extent to which they will motivate staff.

Too easy – If the targets set are too easy, employees will achieve their targets easily, but the targets will not serve to optimise their performance.

Too hard– If the targets set are too hard, staff are likely to treat them as unrealistic, and will not be motivated to try to achieve them.

In this respect, the most effective targets will be 'stretch' targets: targets that will be challenging for the staff, but which are potentially achievable. Employees will therefore be motivated to try to meetthe targets, even if they ultimately fail to do so.

4.13.2 Controllability and responsibility accounting

Responsibility centres in an organisation are usually divided into four categories:

(a) **Cost centres** – Where managers are accountable for the costs that are under their control. Cost centre managers are not accountable for sales revenues. (However, it is important to note that cost centres can still affect the amount of sales revenues generated if quality standards are not met, or if goods are not produced on time.)

(b) **Revenue centres** – Where managers are only accountable for sales revenues, and possibly directly related selling expenses (eg, salesperson salaries). However, revenue centre managers are not accountable for the cost of the goods or services they sell.

(c) **Profit centres** – Managers are given responsibility for both revenues and costs.

(d) **Investment centres** – Managers are responsible not only for revenues and costs, but also for working capital and capital investment decisions.

When measuring the performance of a responsibility centre, a key issue is distinguishing which items the manager of that centre can control (and therefore they should be held accountable for) and those items over which they have no control (and therefore they should not be held accountable for).

This principle of controllability underpins the idea of responsibility accounting: that managers should only be made accountable for those aspects of performance they can control.

In this respect, the controllability principle suggests that uncontrollable items should either be eliminated from any reports that are used to measure managers' performance, or that the effects of these uncontrollable items are calculated and then the relevant reports should distinguish between controllable and uncontrollable items. As with unrealistic targets, it follows that if managers feel that their performance targets are based on factors or results which they cannot control, they are unlikely to be motivated to try to achieve them.

In practice, the controllability principle can be very difficult to apply, because many areas do not fit neatly into controllable and uncontrollable categories. For example, if a competitor lowers their prices, this may be seen as an uncontrollable action. However, a manager could respond to the competitor's action by changing the company's own prices, which could then reduce the adverse effect of the competitor's actions. So, in effect, there are both controllable and uncontrollable actions here.

Similarly, if a supplier increased the price of their product, this may be seen as an uncontrollable action. However, a manager could respond by looking to change supplier or using a different product in order to reduce the adverse impact of the supplier's actions. Again, there are potentially both controllable and uncontrollable actions here.

Accordingly, any analysis of performance would need to consider the impact of the competitor's or supplier's actions as one element, and then the impact of the manager's response as a second element.

Controllable costs

Controllability can also be a particular issue when looking at costs within companies. Consider the following example:

A company has three operating divisions and a head office. The divisional managers think it is unfair that a share of indirect costs – such as central finance, HR, legal and administration costs – are included in their divisional results because the divisional managers cannot control these costs.

Importantly, there is a distinction here between considering the divisional **manager's performance** and the **division's performance** as a whole**.**

In order to evaluate the **performance of the divisional manager**, only those items which are directly controllable by the manager should be included in the performance measures. So, in our mini example, the share of indirect costs reapportioned from the head office should not be included.

These costs can only be controlled where they are incurred. Therefore, the relevant head office managers should be held accountable for them. As the divisional managers have suggested, it would be unfair to judge them on this aspect of performance.

However, in order for the head office to evaluate the division's overall performance for decision making purposes (for example, in relation to growth, or divestment) it is appropriate to include a share of the head office costs. If divisional performance is measured only on those amounts the divisional manager can control, this will overstate the economic performance of the division. If the divisions were independent companies, they would have to incur the costs of those services which are currently provided by the head office (for example, finance and HR costs). Therefore, in order to measure the economic performance of the division, these central costs, plus any interest expenses and taxes, should be included within the measure of the division's performance.

Interactive question 5: Managers' performance

TVW is a retail company that has a number of shops across the country in which it is situated.

The managers of the individual TVW shops have little authority. Shop budgets are set centrally by the Finance Director and the senior management team, and shop managers are not consulted in the budget-setting process. Inventory purchasing is controlled by a central purchasing team, and brand marketing is controlled by a central marketing team. The head office also manages the rent agreements and other property costs for the shops. However, each shop has a small marketing budget of its own which it can use to run local promotions.

TVW produces a standard list of selling prices for all the products it sells, although shop managers do have some scope to change prices, and can vary prices by up to 5% from this standard list.

Shop managers also recruit and manage the staff within their shops. However, the wage rates they can offer their staff are fixed by head office, and are not negotiable.

The shop managers are paid a basic salary with bonuses of up to 25%. However, in order for a manager to qualify for a bonus, their shop's profit has to be above budget.

A number of the shop managers have recently complained about this, because they feel that the current remuneration scheme doesn't reflect the effort they are putting in.

The manager of one of TVW's largest stores commented: 'The budget that was set was totally unrealistic in the current economic conditions. Although I have run several promotions, which were well received by my customers, there was no way I could achieve the sales figure in the budget. The budgeted sales figure for my shop was the same as last year, but this year the industry as a whole has seen a 10% fall in revenues.'

The results for the manager's shop for the last year are as follows.

These are the figures used as the basis for any bonus calculations:

	A	B	C
1		**Actual**	**Budget**
2		£	£
3	Sales	261,000	287,000
4	Cost of sales	104,400	114,800
5	Gross profit	156,600	172,200
6	Marketing	12,500	13,000
7	Staff costs (manager)	27,500	27,500
8	Part-time staff	36,500	40,000
9	Other running costs (eg, rent, heat and light)	26,000	25,000
10	Shop profit	54,100	66,700

Requirement

What are the problems with using this shop performance information as the basis for assessing the manager's performance?

See **Answer** at the end of this chapter.

5 Corporate social responsibility and ESG in UK

Section overview

Since the 1990s, there has been a growing acceptance that good ethics is good business. To this end, there has been a large increase in the range of metrics that companies report in respect of their social responsibility. The increasing importance of social responsibility and sustainability has also been reinforced by legislation (such as the Companies Act 2006 in the UK) which requires companies to report on social and environmental matters in their annual reports.

ESG refers to the criteria used by stakeholders in order to assess an organisation's environmental and social impact, as well as its governance structure. Corporate social responsibility refers to how organisations arrange their business models to achieve acceptable standards, so is essentially about how they achieve acceptable social and environmental performance.

Context example: BP

In 2001, the global energy company formerly known as British Petroleum rebranded itself as BP, and adopted the tagline 'beyond petroleum'.

By the mid-1990s, in the aftermath of the Exxon Valdez oil disaster, and with global warming being recognised as a major environmental concern, 'green' issues were firmly on the agenda, and there was a perception it was profitable to be 'green'.

As part of its relaunch campaign, BP erected a massive billboard in Times Square, New York, which read: 'Solar, Natural Gas, Wind, and Hydrogen. And, oh yes, Oil.' In doing so, BP was trying to highlight its promise to deliver energy that does not damage the environment.

But in reality, BP's alternative energy generation is miniscule. In 2008, BP produced about 2 gigawatts of solar energy and 1.2 gigawatts of wind power annually whereas, for context, total global electricity generation was over 20 million gigawatts.

Despite the rhetoric, BP's activities are still primarily focused on the oil industry. The fact that it is trying to position itself as something more than this suggests there is a degree of 'greenwashing' involved.

One of BP's claims, 'beyond petroleum', is that it is the largest producer of solar energy in the world. Yet BP achieved this position by spending $45 million to acquire the Solarex solar energy corporation in 1999. However, the amount spent on that acquisition was a tiny fraction of the $26.5 billion spent to acquire ARCO, in order to increase oil production capacity. It was also significantly less than the $200 million which BP spent between 2000 and 2002 rebranding its facilities.

Ultimately, despite the rhetoric about social responsibility, profits still count in the corporate world. The 'Deepwater Horizon' oilrig disaster in the Gulf of Mexico (April 2010) called into question BP's sincerity in delivering on its brand promise. Critics argued that cost cutting and recklessness by BP contributed to the disaster. Yet, if BP chooses to stand for energy that 'does not damage the environment', then it must enforce environmental standards that support this (even though they may be more costly than the lower standards that may be legally required by relatively lax government regulations). Therefore, it appears that BP's actions have not matched the standards suggested by its brand promise, and BP has very visibly failed to produce energy that 'does not damage the environment'.

In 2010, BP suffered its first annual loss for nearly 20 years, following the catastrophic explosion at Deepwater Horizon.

Although BP agreed, in September 2014, to meet damages claims of $18.7 billion, by July 2016 it revised its estimate of the total cost of the explosion to $44 billion (after the tax impact is factored out; or $61.6 billion pre-tax).

The company has had to sell numerous assets to cover its settlements, but the financial cost is not the only reason that made 2010 one of the most damaging years in BP's history, because the explosion also shattered the company's reputation.

Although we have highlighted the importance of looking at non-financial aspects of performance as well as financial aspects, the non-financial elements look mainly at customers, business processes, quality, and learning and development.

One potential criticism of the balanced scorecard we could make, however, is that it does not consider any aspects of social responsibility, sustainability and environmental matters.

However, these elements of social responsibility and sustainability are becoming increasingly important in shaping an organisation's long-term success. We have already introduced the concepts of ESG and sustainability in the chapter Strategic analysis. Section 5 of the chapter Finance awareness also addresses issues relating to the measurement and reporting of aspects of corporate social responsibility (CSR) and sustainability.

The relevance here, though, is to remind us that when determining performance metrics, organisations should also consider social and environmental performance, as well as more conventional elements of 'business' performance.

Many people confuse ESG and CSR. They are not quite the same thing – ESG refers to the metrics and frameworks that stakeholders use to evaluate an organisation's social behaviour. CSR refers to how they achieve better social behaviour, for example the use of particular CSR programmes.

Promoting socially responsible behaviour can have commercial benefits for an organisation. For example, companies that set standards for social responsibility could be listed on the **FTSE 4 Good Index**, which is comprised of companies that demonstrate strong ESG practices. Members are expected to meet its criteria, including those on environment, supply chain and anti-bribery. Fund managers are increasingly placing funds into responsible investments, including the FTSE 4 Good Index.

Similarly, Elkington, who developed the idea of the 'Triple Bottom Line', believes that environmental and social accounting will also develop our ability to see whether or not a particular company or industry is 'moving in the right direction'. However, the development of environmental management accounting, for example, will encourage the introduction of more environmental performance measures.

There could also be a direct link between 'environmental' behaviour and performance. There are potentially a number of ways poor environmental behaviour can affect a firm. It could result in fines (for pollution or damage), increased liability to environmental taxes, loss in value of land, destruction of brand values, loss of sales, consumer boycotts, inability to secure finance, loss of insurance cover, contingent liabilities, lawsuits and damage to corporate image.

Moreover, although health and safety measures do not necessarily add value to a company on their own, they can help to protect a company against the cost of accidents which might otherwise occur. If a company has poor health and safety controls, this might result in, among other things, increased sick leave among staff and possible compensation claims for any work-related injuries, as well as higher insurance costs to reflect the higher perceived risks within the company.

Triple bottom line and performance management

In this respect, the idea of the triple bottom line has important implications for performance measurement and performance management. Instead of concentrating on financial performance, and particularly on short-term financial performance, companies should also pay greater attention to the **longer-term** social, environmental and economic impact that they have on society.

In turn, this means that they need to develop performance measures that address these factors, as well as measures focusing on short-term financial performance.

5.1 Measures of ESG and CSR performance

Although CSR initiatives and measures can be extremely broad, and will vary from industry to industry, some prevailing themes are likely to emerge – around a company's dealings with its employees and its supply chain, and its impact on society and the environment more generally.

Examples of performance indicators which could be used to measure ESG factors might include:

ESG Factor	Performance indicator example
Environmental – taking actions to protect the environment	Energy consumption (Giga watt hours) Water use (litres) Scope 1* carbon emissions (metric tonnes of CO_2 equivalent) Scope 2* carbon emissions (metric tonnes of CO_2 equivalent) Waste and effluents produced % of energy acquired from renewable sources
Social – building and maintaining relationships with stakeholders	Staff turnover (leavers replaced as % of average headcount) Number of accidents at work Customer satisfaction scores Results of social audits of supply chain Number of working days lost to industrial disputes
Governance – ensuring leadership is transparent and accountable in their stewardship of the organisation.	Percentage of individuals by gender, age and minority group on the board of directors Number of different disciplines (finance, engineering etc) represented on the board of directors Percentage of adverse events that were/ were not identified by the risk register Number of incidences of bribery and corruption
	Directors' remuneration details

*Scope 1 carbon emissions refers to the greenhouse emissions that the organisation makes directly in its own operations (eg, by burning fuel to heat the offices). Scope 2 carbon emissions refers to carbon emissions that an organisation is responsible for indirectly (eg, the carbon emissions of suppliers in making the goods or services supplied to the organisation).

5.1.1 Quantitative and qualitative performance measures

Quantitative measures are expressed in numerical terms, which makes comparisons with other organisations or with previous years possible. However, much of the ESG information may be qualitative in nature (eg, disclosure of the company's policy relating to the sourcing of its goods, or description of the way in which the board operated). Such information can be of equal importance to stakeholders, and so information should not be omitted on the basis that it can not be expressed in quantitative terms.

5.1.2 Targets

Measuring ESG performance is more meaningful if targets are set. Targets enable an organisation to evaluate its own performance more meaningfully, as it provides a standard that should be achieved. Targets can be based on benchmarks – that is comparing performance for a particular target against other organisations or against industry averages.

Many environmental targets are related to climate change and aim to support the objectives agreed in the Paris Agreement of 2015, which aims to limit global warming to below 2 degrees Celsius compared to the pre-industrial climate. The UK government has set a target of the UK becoming 'net zero' by 2050 and it expects businesses to support this aim. Many businesses have therefore set targets that are related to this, such as achieving specified reductions in carbon emissions by specific dates.

Context example: Asda ESG report

In 2021, Asda launched its first ESG report, setting out its commitments to a sustainable business strategy. To prepare the report, Asda consulted with more than 3,000 customers to understand the key ESG matters that mattered most to them.

Some of the key ESG performance targets outlined in the report are;

- Becoming a net zero carbon business by 2040
- Removing 3 billion pieces of plastic from products by 2025
- Ensuring the top 20 commodities, such as cotton and cocoa, are sustainably sourced
- Cutting food waste by 20% by 2025
- Delivering 120 million meals by the end of the year to communities across the UK

Source: https://corporate.asda.com/newsroom/2021/05/06/asda-launches-first-esg-report

5.2 Mandatory and voluntary ESG disclosures

While some of the pressure on organisations to become more socially responsible has come from stakeholder expectations (including investors and the media who are paying closer attention to companies' social and environmental performance), perhaps more importantly many businesses now also face a **legal requirement** to report on social and environmental matters in their annual reports.

5.2.1 Strategic reports

In the UK, the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 require quoted companies to report on environmental matters within the Strategic Report section of their Annual Report, to the extent that this environmental information is necessary for an understanding of the development, performance or position of the company's business.

The Report should include:

- The main trends and factors likely to affect the future development, performance and position of the company's business
- Information about:
  - environmental matters (including the impact of the company's business on the environment)
  - the company's employees
  - social, community and human rights issues including information about any company policies in relation to those matters and the effectiveness of those policies.

In order to help readers understand the company's business, the report should contain financial KPIs and, where appropriate, analysis using other KPIs including information relating to environmental matters and employee matters.

5.2.2 Company employees

The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 require that, in addition to general reporting on their employees, quoted companies report specifically on the number of men and women on their board, in executive committees and the organisation as a whole.

These regulations also expand the requirements surrounding social and community issues to include specific consideration of human rights.

5.2.3 Greenhouse gas emissions

In conjunction with the general requirement for companies to include information about environmental matters in their business reviews, the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 require that quoted companies have to report their annual greenhouse gas emissions in the directors' report.

Mandatory reporting is seen as a vital first step in getting companies to reduce their greenhouse gas emissions. By measuring and reporting greenhouse gas emissions, companies can begin to set targets and put in place management initiatives to reduce emissions in the future. (The requirement covers all greenhouse gases, not just carbon dioxide emissions.)

Commentators have suggested that by helping businesses to understand their carbon emissions, carbon reporting will help them identify opportunities to reduce costs, improve their reputation and potentially manage longer-term business risks.

However, the legislation also has important performance measurement and performance management implications for companies.

The Companies Act Regulations apply to all emissions sources for which the reporting company is responsible, not just those sources in the UK. This means that multinational companies will have to have data collection systems for gathering information from global operations, as well as a set of global emissions factors to measure performance against.

Perhaps equally importantly, the legislation could encourage companies to make energy efficiency part of their business strategy and, for example, when evaluating a new strategic option, to consider the energy implications of that option rather than focusing solely on financial or commercial factors.

5.2.4 Implications of the increased importance of environmental issues

The increased focus on environmental issues and environmental performance also means that companies should introduce procedures to try to prevent non-compliance with environmental laws and regulations, and to avoid the fines or penalties which accompany such non-compliance.

In this respect, companies should consider the following procedures:

- monitoring legal requirements and ensuring that operating procedures are designed to comply with these requirements
- implementing an appropriate system of internal controls and regularly reviewing the controls over environmental risks
- developing and operating a code of practice for environmental issues, such as accidental spills and the disposal of waste, especially hazardous waste

Environmental information

A company's internal reporting system also needs to record information about environmental issues, and should be capable of providing sufficient information to enable the financial impact of any environmental issues to be estimated with a reasonable degree of reliability.

In addition, it will be important to maintain regular communication between those responsible for environmental issues in a company and the accounting staff, so that the financial implications of any environmental issues are understood, and any necessary action can be taken promptly.

Decision making

More generally, as environmental issues (and in particular climate change issues) gain visibility and urgency, firms may face increasing scrutiny over their choices and actions in support of more sustainable practice. These could have financial implications – for example, evaluating decisions to invest in more energy efficient technologies and waste reducing processes; or recognising the potential environmental costs (emissions; pollution) of other proposed strategic initiatives.

Environmental issues and the supply chain

Environmental issues are not confined within the normal financial reporting boundaries of an organisation. For example, supermarkets' concerns over **supply chain issues** are driving significant changes in supplier companies. To avoid a supplier's reputation being seriously damaged by sourcing products in a way which harms the environment, suppliers are manufacturing products sustainably and from sustainable sources.

5.2.5 Assurance over reporting environmental and social impacts

An additional implication of the increased importance of environmental and social issues is that it needs to be supported by increased assurance over how companies report their environmental and social impacts, to enhance the credibility of the reports.

In a paper on 'The Role of Internal Audit in Non-Financial and Integrated Reporting' (July 2015), the Chartered Institute of Internal Auditors (IIA) called for more 'rigorous assurance' on companies' reporting of social and environmental issues. The IIA said that it believes investors are becoming increasingly concerned about how information relating to the environment, human rights, diversity and anti-corruption measures is reported. As the chief executive of the IIA noted, 'The move towards reporting non-financial information poses obvious challenges for companies; it requires them to bring together information on what may be disparate parts of the organisation.

'Organisations need to ensure that the right things are measured, and that the systems are in place to capture the data needed. But more than that, the public needs to know that the non-financial information being reported is fit for purpose.'

The IIA argued that internal auditors could have a central role in providing assurance over non- financial data. As internal auditors have a broad view across an organisation as a whole, they should be ideally placed to offer a view on how it manages its resources and to provide assurance on data integrity.

However, external auditors could also provide assurance services in respect of environmental and social issues. If directors issue a sustainability report, or a corporate social responsibility report, it is likely to contain figures and statements that are verifiable.

The credibility of this information can be enhanced by an assurance process. As yet there is no single generally accepted set of rules for environmental and sustainability reporting, and equally there is currently no specific standard that applies to the related assurance assignments. However, ISAE 3000 (Revised), *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* is relevant here, and firms are also likely to make use of the assurance standard AA1000, *Assurance Standard* ('AA1000AS') issued by AccountAbility.

You should already be familiar with ISAE 3000 (Revised) from Audit and Assurance at Professional Level; but there is a brief recap of its key points in the chapter Data analysis of this Workbook.

Account Ability is a global non-profit network that works with business and governments to promote accountability innovations that advance sustainable development.

AA1000AS was developed to assure the credibility and quality of sustainability performance and reporting, with reference to how well an organisation adheres to the AA1000, *Accountability Principles* and the quality of publicly disclosed information on sustainability performance.

Account ability's reporting standard, AA1000, *Accountability Principles,* establishes three principles for sustainability reporting.

Inclusivity	For an organisation that accepts its accountability to those on whom it has an impact and who have an impact on it, inclusivity is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.
Materiality	Materiality is determining the relevance and significance of an issue to an organisation and its stakeholders. A material issue is an issue that will influence the decisions, actions and performance of an organisation or its stakeholders.
Responsiveness	Responsiveness is an organisation's response to stakeholder issues that affect its sustainability performance and is realised through decisions, actions and performance, as well as communication with stakeholders.

AA1000AS identifies two types of assurance over sustainability information: **Type 1** – The assurance provider evaluates the nature and extent of an organisation's adherence to the three AA1000 Accountability Principles. The focus here is on providing stakeholders with assurance over the way an organisation manages sustainability performance and communicates this in its sustainability reporting, without verifying the reliability of the reporting information. As such, the assurance provider focuses on the **systems** and **processes** the organisation has in place to ensure it adheres to the Principles for sustainability reporting.

Type 2 – The assurance provider evaluates the nature and extent of an organisation's adherence to the Principles but also evaluates the reliability of specified sustainability performance information.

5.3 Natural capital

The increased importance of environmental issues highlights the importance of natural capital.

Definitions

Natural capital: The stock of renewable and non-renewable natural resources that combine to yield a flow of benefits or 'services' to people (eg, Biodiversity as plants and animals, air, water, soils, minerals). The flows can be ecosystem services or abiotic services; which provide value to business and to society.

Ecosystem services: The benefits to people from ecosystems, such as timber, fibre, pollination, water regulation, climate regulation, recreation, mental health, and others.

Abiotic services: The benefits to people that do not depend on ecological processes but arise from fundamental geological processes and include the supply of minerals, metal, and oil and gas, as well as geothermal heat, wind, tides and the annual seasons.

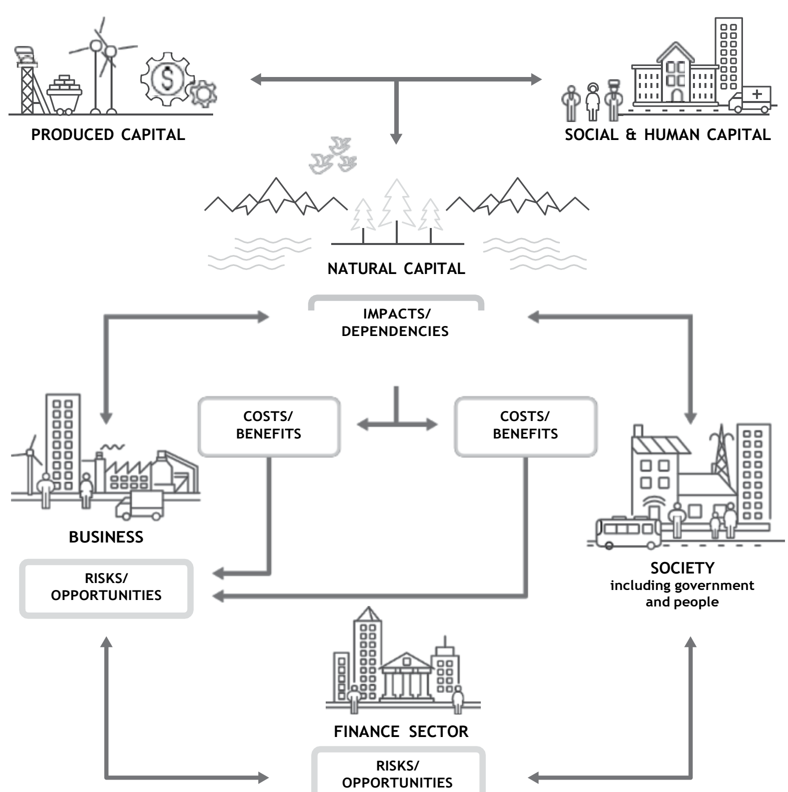
The focus on natural capital has increased dramatically in recent years as organisations begin to better understand how their activities affect the natural world, and are affected by it. The Natural Capital Forum (2018) compares the concept of natural capital to that of an organisation spending more than it earns, in as much that it will eventually run up a debt. When organisations take more out of the natural environment than they give back, they have run up a debt which needs to be paid back. This can be achieved, for example, through repairing the damage caused by polluting activities, or replanting forests where trees have been felled to provide timber for production.

Organisations that 'keep drawing down stocks of natural capital without allowing or encouraging nature to recover, run the risk of local, regional or even global ecosystem collapse. Poorly managed natural capital therefore becomes not only an ecological liability, but a social and economic liability too.' (Natural Capital Forum, 2018)

The increasing focus on natural capital is starting to change the way in which organisations report on their activities, with many now attempting to place financial values on the natural assets they use, to enable them to make more informed business decisions. To value something means to understand what it is worth. The valuation refers to the process of estimating the relative importance, worth, or usefulness of natural capital to people, in a particular context. Monetization is the way value is understood in financial accounting terms; but valuation also refers to qualitative, quantitative, and or monetary terms. 'Natural capital valuation' make visible the value of the impacts and dependencies businesses have on natural resources so that companies can know their true value for their business. The costs and benefits linked to natural capital are made clear and the risks and opportunities for

business can be seen. As populations grow, businesses increasingly compete for a finite supply of natural resources, which are being depleted faster than they can be replenished. Consequently, companies are likely to have to pay more for their natural capital as a result of increased regulation, resource scarcity, pollution or extreme weather events that reduce supplies.

Figure 4.3: Natural capital



'Natural capital valuation' prices these resources so that companies can see their true value to the business. As population grows, businesses increasingly compete for a finite supply of natural resources, which are being depleted faster than they can be replenished. Consequently, companies are likely to have to pay more for their natural capital as a result of increased regulation, resource scarcity, pollution or extreme weather events that reduce supplies.

Equally, businesses are now recognising that emissions to air, discharges to water and other impacts from their operations have an impact on natural resources which is not typically accounted for.

However, these impacts ('externalities') could result in business risks – for example, due to legal action, consumer boycotts or brand damage – meaning it is important that organisations understand, measure and manage the impact that their operations have on natural capital.

Context example: Real life example

The 2020 Global Futures report, an initiative between the World Wildlife Fund, the Global trade analysis project and the Natural Capital project, warns of potential risks to the world's economic prosperity if we don't act urgently to halt nature loss.

Following the launch of the report, the food and agri-business Olam decided to take action to improve accounting for natural capital. Alongside the development of various sustainability projects, aimed at protecting the natural assets that Olam uses, the company has also created a new 'Finance for Sustainability' team. The team is responsible for accounting for natural capital and trying to incorporate it, as much as possible, into the P&L and balance sheet. The aim is that this will provide Olam with a clear view on the natural capital they create or erode based on decisions they take.

Source: Brown, C (2020), *Accounting for nature is good business and everyone's business* [Online] Available from: https://www.olamgroup.com/news/all-news/blog/why-accounting-for-nature-is- everyone-business.html [Accessed 6 July 2021]

Context example: Using and valuing natural capital

The UK retailer Kingfisher plc depends on a forest area the size of Switzerland each year for its timber supplies. In 2020/21, 81% of wood and paper in its products was responsibly sourced and by 2025 it hopes that this figure will rise to 100% alongside a goal to create more forests than it uses. It is involved with projects which will create new sources of sustainably managed wood to ensure the security of its future supply.

Coca Cola focuses on water, as water scarcity is a key risk for its operations. It has an ambitious target to reduce, reuse, recycle and all the water they use by 2030.

Setting quantifiable, tangible targets such as these around crucial items of natural capital, and measuring their achievement, helps to identify risks and opportunities in the supply chain and provides information to stakeholders on the ability of a company to create value over the long term.

A report by EY suggests that accountants have a role to play in developing and supporting the introduction of natural capital accounting in their organisations:

- raise natural capital as a strategic issue
- measure and value natural capital impacts

- engage with stakeholders, for example suppliers for sustainable sourcing, customers who want more responsible products and banks who are concerned by natural capital risks and opportunities.
- use natural capital valuation in decision making and reporting
- carry out natural capital accounting with the same discipline as financial reporting

Source: https://www.ey.com/Publication/vwLUAssets/Accounting-for-natural-capital/%24FILE/EY- Accounting-for-natural-capital.pdf [Accessed 9 August 2018]

5.3.1 Natural capital and decision making

However, in order for organisations to incorporate 'natural capital' into their business cases and decision making they need to be able to measure and value it. The process of trying to measure and quantify environmental impacts is very complicated and will likely involve environmental economists, scientists, ecologists and data analysts. However, in their methodology document 'Valuing corporate environmental impacts' PwC highlight three key steps in the valuation process:

- Quantify resource use (dependency) or environmental emissions (impacts) in biophysical units (kilograms, litres, etc.)
- Understand how the resource use or environmental emissions cause changes in the natural environment (for example, through water pollution or changes in air quality)
- Value the impacts on people associated with these changes in the natural environment - also called outcomes (eg, impacts on health, or on agriculture or fisheries)

Importantly, when trying to value and manage natural capital organisations need to apply a consistent methodology, in order to be able to make meaningful comparisons between different projects, or in comparing performance over time. The 'Natural Capital Protocol' – developed by the Natural Capital Coalition – is one such framework which can be used for measuring and valuing natural capital.

Context example: Yorkshire Water

As part of a multi-million pound project to upgrade one of the primary water treatment plants supplying Sheffield, Yorkshire Water wanted to understand the environmental impacts and trade-offs associated with the upgrade, as part of their evaluation of different upgrade options.

Working with the US engineering company AECOM, Yorkshire Water identified and analysed the material impacts of the different options. This analysis included the benefits of the different options (eg, their importance to local communities) and their impacts in terms of climate, air quality, pollination and cultural values in the areas.

The companies used peer-reviewed academic literature and government guidance to identify methodologies for estimating monetary values of material impact, and then calculated NPVs for each option. The solution chosen provided less negative and more positive environmental benefits. These included a gravity-fed supply system that reduced energy requirements (reducing impact on climate) and it being partially buried with a wild flower meadow on the building's roof (maintaining cultural values in the area, and enhancing pollination services).

Interactive question 6: Assurance engagement

As part of its commitment to increased transparency, and to improved engagement with stakeholders, a listed food manufacturing company has decided to voluntarily publish a corporate environmental and sustainability report, in addition to its annual report. The company intends that the report will provide some relevant quantitative environmental performance indicators, although it will be largely narrative in form.

In order to increase both the credibility of the report and the confidence users can place in it, the food manufacturing company's directors want to obtain some external assurance over it. As such, they have approached the company's auditor to ask whether they will undertake an assurance engagement on the information provided in the report.

Requirement

What factors should the auditor consider when deciding whether or not to accept the assurance engagement?

See **Answer** at the end of this chapter.

5.4 Integrated reporting

Although it is important for businesses to recognise natural capital, it is only one of a number of forms of capital which could affect a business's performance – including natural, human, social and economic.

The need to recognise all of these capitals, and their impact on a business's ability to create and sustain value, underpins the rationale of **integrated reporting** (IR).

The International Integrated Reporting Council (IIRC) was formed as a global coalition of regulators, investors, companies, standard setters, the accounting profession and non-government organisations. Since 2022 the work of the IIRC has become consolidated within the newly formed International Sustainability Standards Board (ISSB), which is discussed in more detail in the chapter Finance awareness. The IIRC has a mission to establish integrated thinking, and integrated reporting, within standard business practice. The IIRC claims that 'IR is a strategic response to the need for sustainable capital markets, where financial and other streams of reporting combine to tell a concise communication about value over time, covering strategy, governance, performance and prospects'.

According to the IIRC, an integrated report is 'a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment lead to the creation of value in the short, medium and long term'.

5.4.1 Aims of Integrated Reporting

- A key element of IR is its focus on business sustainability and the long-term success of businesses. By encouraging organisations to focus on their ability to create and sustain value over the longer term, IR should help them take decisions which are sustainable and which ensure a more effective allocation of scarce resources.
- IR should also help providers of financial capital (primarily shareholders), and other stakeholders, to better understand how an organisation is performing and creating value over time. In particular, IR should help stakeholders make a meaningful assessment of the long-term viability of an organisation's business model and its strategy.

- IR's emphasis on 'concise communication' could help to simplify the annual reports organisations produce, by highlighting critical information and by removing excessive detail.
- it is also important to consider IR as a process, rather than an integrated report as a product. The report periodically delivered to stakeholders (reporting on an organisation's current state and future prospects) requires a comprehensive understanding of the strategies being adopted, the risks the organisation is facing, the opportunities it is pursuing and details of its operations, as well as the organisation's impact on the environment and the wider society.
- IIRC highlights that integrated reporting reflects integrated thinking within an organisation – management's ability to understand the interconnections between the range of functions, operations, resources and relationships which have a material effect on the organisation's ability to create value over time.

5.4.2 Four capitals

All organisations depend on different forms of capital for their success, and these different capitals should be seen as part of the organisation's business model and strategy. These capitals are an important part of an organisation's value creation.

Traditional annual reporting focuses primarily on financial performance. The IR framework, however, identifies and refers to four categories of 'capital': **economic, human, natural, social.**

Category of capital	Characteristic elements of the category of capital
Economic	• Funds available for use in production or service provision, obtained through financing or generated through operations • Manufactured physical objects used in production or service provision; including buildings, equipment and infrastructure
Human	• Skills, experience and motivation to innovate • Alignment and support for an organisation's governance framework and ethical values • Ability to understand and implement organisation's strategies • Loyalties and motivations for improvements • Intellectual capital eg, intangible assets, patents, copyrights, brand and reputation
Natural	• Inputs to goods and services, and natural environment on which an organisation's activities have an impact • Water, land, minerals and forests • Biodiversity and health of ecosystems
Social	• The institutions and relationships established within and between each community, stakeholder group and network to enhance individual and collective wellbeing • Includes an organisation's social licence to operate

An organisation's business model draws on various capitals as inputs and, through its business activities, converts them into outputs (product, services, by-products and waste). The outcomes of an organisation's activities and outputs also have an effect on the capitals. Some of the capitals belong to the organisation, but others belong to stakeholders or society more generally. The organisation and society therefore share both the cost of the capitals used as inputs and the value created by the organisation.

It is also important to recognise that the capitals will interact with one another, so an increase in one may result in a decrease in another. For example, a decision to build housing on farmland will improve the organisation's 'economic' capital in the form of financial returns while decreasing its natural capital from the usage of land.

More generally, IR will also force management to balance an organisation's short-term objectives against its longer term plans. Business decisions which are solely dedicated to the pursuit of increasing profit (economic capital) at the expense of building good relations with key stakeholders such as customers (social capital) are likely to hinder value creation in the longer term.

5.4.3 Potential benefits of IR

Introducing IR could have the following benefits for an organisation:

- Focusing on the performance metrics that truly deliver value, thus providing the managers of an organisation with both the ability and the incentive to improve performance. The notion that 'what gets measured, gets done' is pertinent here. If the areas being measured are those which are critical to the organisation's continued success then, by implication, this should also focus attention to improving performance in these key areas.
- Recognition of stakeholder interests through consultation with its key stakeholders. This consultation could help to identify what stakeholders want to know about the performance and direction of the organisation, guiding areas of performance which the organisation should monitor and report on.
- IR may require management accounting information to become more 'strategic' rather than simply reporting on historical, internal and financial performance. For example, since an integrated report should highlight the opportunities and risks an organisation faces, there is likely to be a need for external analysis in order to identify the opportunities, threats and risks presented by the external environment.
- IR also leads to a greater focus on what is material to an organisation. This should mean that less time and effort is wasted on reporting unimportant issues and, instead, the focus is put on those activities and processes through which an organisation creates value (for example, activities linked to its CSFs).
- One of the guiding principles of IR is conciseness, and therefore one of the potential benefits of IR is that it encourages organisations to produce shorter, more streamlined communications. IR should not be seen as a reason for producing more information or longer reports.

5.4.4 Implication of IR for accountants in business and management accountants

As yet, there is no standard, accepted format for an integrated report, so the detailed implications of the information required for an integrated report will vary from organisation to organisation.

However, the general principles and aims of IR suggest that a management accountant will need to consider the following issues when preparing information for an integrated report.

Forward-looking information

The focus of IR is how an organisation's strategy, governance and performance can lead to the creation of value in the future. Therefore, the performance information produced by an organisation needs to give an insight into an organisation's prospects and future performance – how it can create value in the future – as well as reporting its past performance.

However, an organisation needs to think carefully about what kind of 'forward looking' information it discloses. Any material providing information about the future prospects of the entity (particularly a listed company) is likely to be regulated and possibly commercially sensitive. Disclosure may therefore result in a loss of competitive edge.

Equally, no one can predict the future and forecasts are inevitably wrong to some degree. While management is likely to have the best information available to make such predictions, they still need to ensure that investors do not place undue reliance on that information.

Long-term performance

One of the key aims of IR is to reflect the longer-term consequences of the decisions which organisations make, in order that decisions should be sustainable and create value over time. Therefore, the IR process highlights that, when making a [strategic] decision, an organisation needs to consider the long-term consequences of that decision – and its effect on the four capitals, both positive and negative – as well as its short-term consequences.

Non-financial information

By focusing on value generation in a broader sense (rather than focusing on narrower goals of revenue generation, for example) IR will also encourage organisations to review the set of performance measures they use to monitor and manage performance. This is likely to result in the increased use of non-financial data alongside financial data (eg, measures such as the balanced scorecard) to gain a clearer picture of an organisation and its performance.

Strategy, not just reporting

The guiding principles of IR note that an integrated report needs to provide **insight** into an organisation's strategy rather than simply reporting figures. Rather than simply presenting the figures, an integrated report should highlight the significance of the figures being presented, and how they affect an organisation's ability to create value.

As such, the management accountant's role should no longer be simply to report on financial performance. They should also provide information which can give insight into an organisation's strategy, thereby becoming more actively involved in organisational decision making.

5.4.5 Implications of increased importance of non-financial information

Although including non-financial performance metrics in performance reports can help provide a clearer picture of an organisation and its performance, there could be a number of practical considerations linked to providing non-financial performance information. In particular:

(a) Can the organisation's information systems supply the full range of non-financial data which stakeholders wish to see in an integrated report?

(b) If this data cannot currently be obtained from an organisation's information systems, how can the management accountant get the information wanted for the report?

(c) Can non-financial issues be embedded into existing financial systems?

(d) How can the organisation's information systems be improved in order to allow the required non- financial information to be collected?

(e) Can non-financial information be gathered and verified within financial reporting timelines?

(f) How can the management accountant ensure that non-financial data is reliable and, more generally, what assurance is there over non-financial data in a report? (Non-financial data is typically not audited in the same way that financial data is; but if stakeholders are going to rely on this data, then should an organisation obtain some kind of assurance over the data?)

5.4.6 IR and assurance

If companies start to prepare integrated reports in place of traditional 'financial' Annual Reports this also presents a challenge in relation to the assurance of the information provided in the report.

Traditionally, assurance in relation to financial reports has been provided by an external audit, and users of financial reports can place a degree of reliance on the fact that an objective third party (ie, the auditor) has reviewed the figures to ensure that they are not materially misstated and are prepared in accordance with relevant accounting standards. This framework helps to ensure not only the reliability of the information presented in financial reports, but also consistency in the way different companies present information which helps users of the accounts to compare the performance of different companies.

However, as we have already mentioned, there is not currently any standard, agreed format for the presentation of integrated reports, and this is likely to reduce the level of consistency between reports. In turn, this could make it harder for readers of integrated reports to compare the performance of different companies. For example, how can a reader compare the 'sustainability' of different companies, if they measure different aspects of sustainability, and report on them in different ways?

Controls over non-financial information – Perhaps even more importantly, however, the increased importance of non-financial information means that in order for users of the reports to rely on integrated reports in the same way that they can rely on financial reports some external assurance needs to be provided on them, in a similar way to the audit of financial reports. But this raises the question of how the concept of 'materiality' can be applied to non-financial information as well as financial information. Moreover, in the context of IR, will different stakeholder groups have different interpretations of materiality, depending on the degree to which they are interested in the different 'capitals' or the organisation's ability to create value in the short term compared to the longer term?

A further potential issue in relation to assurance of integrated reports is that the business processes producing non-financial information – and the controls over them – may be less sophisticated and robust than those producing financial data. For example, are the systems which produce information about sustainability subject to the same levels of control as the systems which produce financial information?

Forward-looking information – The inclusion of forward-looking, strategic information in integrated reports also raises similar questions. What assurance reporting will be needed over such information and how can it be provided?

Limits to the reliance that can be placed on integrated reports – It is likely that the full value of IR will only be realised when appropriate assurance is also provided on the report. Otherwise, how far will investors be prepared to rely on the reports? Would investors rely on financial reports which were not audited? Equally, however, the ability of assurance providers to provide that assurance is likely to be impeded by the absence of any consistent standards for measuring and reporting non-financial information. The absence of these standards is also likely to make it very difficult to carry out any meaningful comparative analysis between the integrated reports produced by different companies.

5.5 United Nations (UN) Sustainable Development Goals

The increasing importance for organisations to consider the environmental and social context within which they operate is reiterated by the United Nations (UN) 2030 Agenda for Sustainable Development. This 'Agenda' is a 15 year plan, formally adopted by the UN in

September 2015, which includes 17 global goals for sustainable development, with the aims of ending poverty, combatting climate change, and fighting injustice and inequality.

Global goals	
(a)	**No poverty** – End poverty in all its forms, every where
(b)	**Zero hunger** – End hunger, achieve food security and improve nutrition and promote sustainable agriculture
(c)	**Good health and well-being** – Ensure healthy lives, and promote well-being for all, at all ages
(d)	**Quality education** – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
(e)	**Gender equality** – Achieve gender equality and empower all women and girls
(f)	**Clean water and sanitation** – Ensure availability and sustainable management of water and sanitation for all
(g)	**Affordable and clean energy** – Ensure access to affordable, reliable, sustainable and modern energy for all. Ensure there is heat, light and power for the whole planet, without destroying the planet
(h)	**Decent work and economic growth** – Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
(i)	**Industry, innovation and infrastructure** – Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation. Ensure innovations are used not just to make money, but to make lives better.
(j)	**Reduced inequality** – Reduce extremes of inequality within, and between, countries
(k)	**Sustainable cities and communities** – Make cities and human settlements inclusive, safe, resilient and sustainable
(l)	**Responsible consumption and production** – Ensure sustainable patterns of production and consumption
(m)	**Climate action** – Take urgent action to tackle climate change and its impacts (Note, however, that this goal also acknowledges that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.)
(n)	**Life below water** – Conserve and sustainably use the oceans, seas and marine resources for sustainable development
(o)	**Life on land** – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss
(p)	**Peace, justice and strong institutions** – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels
(q)	**Partnerships for the goals** – Strengthen the means of implementation (including finance, technology, infrastructure and policy and governance) and revitalise the global partnership for sustainable development (including international support for developing countries)

Source: United Nations, Sustainable Development Knowledge Platform, https://sustainabledevelopment.un.org/sdgsThese overall goals are supported by a range of associated targets (169 in total) and indicators, which provide a quantifiable framework for assessing whether or not the goals are being achieved. For example, one of the targets linked to Goal 1 (No poverty) is: 'By 2030, to eradicate extreme poverty for all people every where, currently measured as people living on less than $1.25 a day.' In turn, performance against this target is measured using the indicator: 'Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural).'

The magnitude of the goals – and the fact that they relate to everyone, everywhere ('global') – mean that achieving the UN's vision is going to be a huge challenge. National governments will have the principal responsibility for achieving the goals, but the issues arising are too large for governments to tackle on their own. Success in achieving the goals will also depend on the active participation of businesses and non-governmental organisations (NGOs) across the world.

In this respect, a key challenge is in encouraging senior managers to evaluate the extent to which their business objectives create societal value. Another key challenge for sustainability professionals is being able to demonstrate the links between 'sustainability' and business. One possible way to do this is to translate the language of 'sustainability' into the language of everyday business and operations. For example, instead of asking a construction company 'How does climate change affect your business?', the issues could be identified more pertinently by looking at the risks that flooding or changes in water level might have on the company's projects and site operations.

5.5.1 ICAEW and the UN Sustainable Development Goals

From the outset, ICAEW has championed the relevance of the UN's goals to business, and to the accounting profession.

- The actions that businesses take will be critical for translating the UN's vision into reality. Businesses have a duty to act in the public interest, and the goals provide a definition of what 'public interest' is.
- As countries measure their progress in achieving the goals, the accounting profession will have a major role in aligning measurement systems (to ensure they include all the different aspects of 'performance' and 'development', and to ensure they are measured in comparable ways across different industries and different countries).

There is also a significant role for the accountancy professional in providing high quality reporting, audit and assurance of organisations' performance in relation to the goals. Having timely, reliable and relevant ('decision-useful') information will be central for achieving sustainable development goals, just as it is for 'traditional' business decisions. The information that accountants provide helps people make informed decisions. Equally, this information can provide a picture of the progress we are making towards the goals, so that governments, organisations and individuals can be held to account for that performance.

As PwC note in their report *Navigating the SDGs,* 'Data will be crucial – determining what to measure and how, actually measuring, monitoring and reporting it, will all be significant challenges in themselves. The demands for a more granular understanding of business impact could drive a data revolution in itself.'

5.5.2 Taskforce on Climate-related Financial Disclosures (TCFD)

In March 2020, the Financial Conduct Authority (FCA), which is the main UK financial markets regulator, issued instructions for all UK companies listed on the UK stock market to disclose their **carbon risks** to investors. This would be achieved by companies signing up to the Taskforce on Climate-related Financial Disclosures (TCFD) and following its guidance in matters such as:

- describing management oversight of risks
- explaining how their strategy would cope in different temperature scenarios
- setting out risk management processes
- reporting their progress against targets

This TCFD approach is endorsed by the UK Government in its Green Finance Strategy (BEIS, July 2019) which outlined the core elements of the recommended climate-related financial disclosures:

Governance

The organisation's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses,strategy and financial planning

Risk management

The processes used by the organisation to identify, assess, and manage climate-related risks

Metrics and targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

According to the government's Green Finance Strategy, 785 organisations now support the TCFD including investors who are responsible for managing assets valued at over £1 trillion.

(Sources: UK Government (2019) Green Finance Strategy: Transforming Finance for a Greener Future. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/ 820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf [Accessed 6 July 2020]

Vincent, M. (2020) UK-listed companies face compulsory climate disclosures. [Online] Available at: https://www.ft.com/content/de915fb4-5f9e-11ea-b0ab-339c2307bcd4 [Accessed 6 July 2020])

5.5.3 ESG (environmental, social and governance) disclosures

Since 2021, the largest UK companies have been required to make a number of climate-related disclosures that follow the framework laid down by the Taskforce on Climate-related Financial Disclosures (TCFD), which we will cover later in this chapter. There are four key categories that the TCFD disclosures should contain:

- Governance
- Strategy
- Risk management
- Metrics and targets

Context example: J Sainsbury plc Annual Report 2022

Within the strategic report for UK grocer J Sainsbury plc, there is a seven-page section devoted to TCFD disclosures. Here are some illustrative extracts:

TCFD category	Examples of how J Sainsbury plc is demonstrating its climate resilience
Governance	Climate-related risks and opportunities are directly monitored by the board of directors, supported by its Corporate Responsibility and Sustainability Committee. The company's remuneration committee has built long-term green-house gas emission (GHG) reduction targets into the remuneration contracts of executive directors. Management is responsible for managing investments such as the commitment to spend £1 billion on beco ing net zero by 2035.
Strategy	The company has identified short-, medium- and long-term (ranging from 0 to 50 years) climate-related risks and opportunities which have been assessed as having impacts ranging from less than £25 million to greater than £125 million. In each case, mitigation strategies are also suggested - for example: • Both reputation and revenue risks exist from selling products (such as meat, fish and poultry or MFP) that lead to higher GHG emissions. These risks would be mitigated by introducing additional 'carbon prices' for products which would be passed on to consumers and encouraging them to purchase lower GHG emission products instead • The planned UK ban on new petrol and diesel cars from 2030 will affect the company's fuel sales. Installing greater numbers of electric vehicle charging points at stores for customers to use as they shop will mitigate this risk and support the company's net zero strategy. • The company estimates that food waste contributes to more than 8% of all man-made GHG emissions and has increased its donations of surplus food to charities and farms for animal feed and supported initiatives to improve behavioural tips on product packaging (ie switching from 'use by' to 'best before' dates where appropriate).
Risk management	Climate-related risks are identified using both 'top-down' and 'bottom-up' approaches and assessed for impact from insignificant (less than £10 million) to severe (greater than £125 million) and likelihood from remote to almost certain. Climate risks are assigned to those at director-level, monitored by committees and outputs overseen by the main board.
Metrics and targets	The company has set targets for a number of climate-related metrics using the following categories: • Reduced carbon emissions (eg, in absolute terms and the percentage of the company's electricity that comes from renewable sources) • Reduced water use in absolute terms (m^3) • Healthy and sustainable diets as a proportion of total sales (%) • Reduced food waste going to an aerobic digestion (tonnes) • Biodiversity (the percentages of soy, palm, timber and cotton sourced in line with an independent sustainability standard and the number of woodland trees planted)

Source: J Sainsbury plc (2022) Annual report and financial statements 2022 [Online]. Available at: https://www.about.sainsburys.co.uk/~/media/Files/S/Sainsburys/documents/reports-and- presentations/2022/Annual%20Report%202022/J%20Sainsbury%20plc%20Annual%20Report%20a nd%20Financial%20Statements%202022.pdf [Accessed 24 June 2022]

5.5.4 Assurance over ESG disclosures

At present, there is no requirement for these disclosures to be subject to any form of assurance (at least, not beyond the work that the external auditor might perform on any of these disclosures as part of the statutory audit), but there are definitely benefits to stakeholders and the wider public interest of placing scrutiny on them.

Interactive question 7: Assurance and ESG disclosures

Go back to the real world example above showing J Sainsbury plc's TCFD disclosures.

Requirements

7.1 For each of the four TCFD categories, recommend TWO procedures that you would carry out to gain assurance over the disclosures made by J Sainsbury plc.

(8 marks)

7.2 Suggest TWO benefits to stakeholders and the wider public interest from having these disclosures subject to an effective form of assurance.

(2 marks)

Total: 10 marks

See **Answer** at the end of this chapter.

5.5.5 Sustainable Development Goals (SDG) Compass

As we have already noted, although governments will have a key role in achieving the goals, businesses will also have to take action to support them, **by putting 'sustainability' at the centre of their strategies** and their business activities.

However, many companies are uncertain about the actions they can, or should, take in order to contribute to the goals. To help companies in this respect, the Global Reporting Initiative (GRI), the UN Global Compact, and the World Business Council for Sustainable Development (WBCSD) have developed the 'SDG Compass' – which is designed to provide companies with guidance about how they can align their strategies towards realising the SDG, and to measure and manage their impacts.

The 'Compass' identifies five steps which companies can take to maximise their contribution to the SDGs.

Step		Comments
(a)	Understanding the SDGs	As a first step, companies need to familiarise themselves with the SDGs.
(b)	Defining priorities	To seize the most important business opportunities presented by the SDGs and to reduce risks, companies are encouraged to define their priorities based on an assessment of their impact (positive and negative) on the SDGs across their value chain. As well as assessing their current impact, companies should also consider their potential future impact on the SDGs.

Step		Comments
(c)	Setting goals	Setting goals will help to foster shared priorities and better performance across the organisation (in the same way that goals are set for 'traditional' aspects of business performance). By aligning company goals with the SDGs, leadership can demonstrate its commitment to sustainable development.
(d)	Integrating	Integrating sustainability into the core business and governance, and embedding sustainable
		development targets across all functions within companies is key to achieving set goals. To pursue shared objectives, or to address systemic challenges, companies increasingly engage in partnerships across the value chain, within their sector, or with governments and other civil society organisations.
(e)	Reporting and communicating	The SDGs enable companies to report information on sustainable development performance using common indicators and shared sets of priorities. The SDG Compass encourages companies to incorporate the SDGs into their communication and reporting with stakeholders.

Source: SDG Compass, https://sdgcompass.org/

5.5.6 Benefits of the SDGs

Companies can use the SDGs as an over-arching framework to shape their strategies and activities, and the SDGs could offer the following benefits:

- **Identifying future business opportunities** – The SDGs aim to redirect public and private investment flows towards the challenges highlighted in the goals. In doing so, the SDGs define growing markets for companies that can deliver innovative solutions and transformative change.
- **Enhancing the value of corporate sustainability** – Businesses are already aware of the importance of social responsibility and sustainability in general terms. However, the SDGs could strengthen the economic incentives for companies to use resources more efficiently, or to switch to more sustainable alternatives, as sustainability indicators are increasingly quantified and measured, and as externalities become increasingly internalised.
- **Strengthening stakeholder relations**– The SDGs reflect stakeholder expectations as well as future policy direction at international, national and regional levels. By aligning their priorities with the SDGs, companies can strengthen the engagement of their customers, employees and other stakeholders. Conversely, companies whose strategies are not aligned with the SDGs could be exposed to growing legal and reputational risks.
- **Stabilising societies and markets** – Business cannot succeed in societies that fail. The SDGs look to support and develop the infrastructure necessary for business success, including transparent financial systems, and non-corrupt and well-governed institutions.
- **Using a common language and shared purpose** – The SDGs define a common framework of action that will help companies communicate more consistently and effectively with

stakeholders about their impact and performance. The goals will help bring together synergistic partners to address the most urgent challenges facing society and the environment.

More generally, investors are asking for companies to address sustainability, and the UN's agenda can provide a framework for companies to illustrate how they are contributing towards sustainable development. For example, a company could explain how product or process improvements are making our lives better (rather than just providing the company with a way of increasing its profits).

While the overall goals are broad and aspirational, the indicators ask practical, commercial questions which can help businesses to recognise the potential impact of their actions on sustainable development.

For example, two of the indicators raised in relation to global goal 8 – promoting decent work and sustainable economic growth – are:

- Does the company's buying practices (eg, volume of purchases, prices paid) impact the price volatility of key commodities, materials, crops and/or inputs that suppliers rely on in local or national markets?
- What are the company's planned investments in a country? Does the company plan to: (1) maintain a similar level of investment in the coming years; (2) increase its investment or volume of trade, or (3) divest or reduce volume of trade with suppliers and distributors?

What type of business model(s) does the company plan to invest in (eg, direct investment, contract)? The answer to this question will help to assess security of income for suppliers and workers in the longer term.

As such, the SDGs should help to encourage businesses to think about the wider, longer-term implications of business decisions, not just internal, financial ones. For example, as the indicators above illustrate, when companies are evaluating foreign investment decisions, as well as considering the impact of the potential investment for them, they should also consider its potential impact (positive or negative) in the country where the investment will be.

Context example: SDG Industry matrices

KPMG International and the United Nations (UN) Global Compact have developed a series of matrices which illustrate the ways companies in different industries can contribute to the Sustainable Development Goals in order to create value for shareholders and for society.

The matrices cover six industries:

- financial services
- food, beverage and consumer goods
- healthcare and life sciences
- industrial manufacturing
- transportation
- energy, natural resources and chemicals

The following table summarises some of the opportunities for shared value which are identified in the industry matrix for the food, beverage and consumer goods matrix:

Opportunity for shared value	Ways to achieve this
Enterprise development – promote inclusive development by increasing the participation of small and medium-size businesses in developing countries in the value chains	• Provide training and best practice guidance to small scale producers and retailers, including women-owned businesses, to improve the productivity, capacity, logistics and market efficiency of their operations • Connect small business and entrepreneurs to capital to grow their business • Create markets for local products through innovation and mobile technology • Enact a supplier diversity program
Sustainable supply – reduce climate impacts by investing in sustainable sourcing, processes, materials, machinery and products across the value chain, ensuring fair labour practices and promoting traceability of inputs	• Reduce natural resources and energy used in agriculture and raw material production, processing, packaging and distribution • Reduce waste and emissions by reducing chemical by-products • Embed sustainability criteria in procurement processes and project evaluation • Increase the share of energy from renewable sources • Enhance climate resilience across the supply chain • Understand end of product use and disposal impacts • Monitor and reduce food loss and waste throughout the value chain
Healthy, sustainable living – engage with consumers, employees and partners to increase awareness and understanding of sustainable consumption and healthy living	• Develop consumer knowledge around sustainable agriculture and consumer products, and encourage recycling and sustainable disposal of products • Help consumers and employees adopt healthier lifestyles by raising consumer awareness of the importance of nutritious diets, physical activity, personal care and hygiene • Increase organisational awareness of the sustainability aspects of products, including product design, use and disposal

Opportunity for shared value	Ways to achieve this
Product innovation – connect with local communities to develop products which align with the needs of developing economies, thereby opening up markets and increasing future demand	• Offer products which are tailored to the requirements and preferences of consumers in developing economies, involving local producers where possible • Increase the availability of low cost options accessible to low income consumers • Develop innovative solutions to meet challenges faced by developing communities, including lack of safe drinking water, nutritious food and energy

Source: United Nations Global Compact and KPMG, *SDG Industry Matrix*, [Online] Available from: https://home.kpmg.com/content/dam/kpmg/xx/pdf/2017/05/sdg-food-bev.pdf

Context example: Danone and ending poverty (SDG Goals 1 and 17)

PwC's report *Navigating the SDGs: a business guide to engaging with the UN Global Goals* includes a number of case studies illustrating the ways companies have aligned their business strategies with the SDGs, recognising the way that responsible environmental and societal policies enable them to maintain or strengthen their licence to operate.

The following example is one of the case studies included in the report.

Bangladesh is one of the world's poorest countries. 80% of its population live on two dollars a day and have no access to basic goods or services. One in two children suffer from malnutrition.

The multi-national food company Danone's mission is 'bringing health through food to as many people as possible.' Danone's commitment to this was illustrated in 2005 when the CEO of Groupe Danone met the founder of Grameen Bank, the microfinance organisation founded in Bangladesh.

This meeting led to the creation of Grameen Danone Foods Ltd (GDFL), with the aim of setting up a small yoghurt plant in Bogra, Bangladesh, to promote local development and bring health to the community.

GDFL was set up as a partnership, and both parties contributed initial capital investment.

GDFL developed a yoghurt which is enriched with zinc, iron, iodine and vitamin A, and accounts for 30% of a child's recommended daily nutrients. Its brand name, 'Shokti Doi' means 'strength yoghurt' in Bengali, and it is sold at an affordable price to the local community.

The milk to produce the yoghurt comes from local micro-farmers; and the yoghurts are distributed by a network of rural sales women. GDFL has the status of 'social business enterprise', where any potential profits are spent on welfare of the local people and community development.

Benefits of the partnership

A key benefit is that the new yoghurts become a good supplement to children's diets, so it helped to improve their overall health. Other benefits to the local people have included: employment opportunities (with fair wages and the opportunity to learn new skills) for the local people employed

in the production plant; employment for the women distributing the yoghurts; increased revenue for local farmers (who provide the milk used to make the yoghurts).

However, the project also offered Danone an opportunity to learn how to develop a low-cost, nutritious product, and how to sell to the poor, which they can replicate in other parts of the world. They have also learned a new way of food fortification, which the company can apply to other brands (eg, Densia and Activia, which are also sold in Europe).

PwC (2016) Navigating the SDGs: a business guide to engaging with the UN Global Goals, [Online] Available from: https://www.pwc.com/gx/en/sustainability/publications/PwC-sdg-guide.pdf [Accessed 9 July 2019]

Summary

Tick off

Summary point	Tick off
The first stage in a performance measurement and control process is to set goals and targets. Then actual performance can be measured and compared with the target, and, if necessary, measures taken to correct any adverse variances.	☐
Budgets are used by many organisations as a means to compel planning and coordinate activities, as well as to evaluate performance (eg, through variance analysis).	☐
The Beyond Budgeting management model argues that traditional budgets are too static for today's dynamic and complex environment in which organisations need to be flexible to allocate their resources in the way which creates most value for customers and shareholders.	☐
Information is essential for performance measurement, and for strategic planning, decision-making and control more generally.	☐
An organisation's information requirements vary at each level of the performance hierarchy: strategic, tactical/management and operational. The organisation's information systems need to be capable of providing appropriate information at each of the three levels.	☐
Traditional management accounting information can be criticised as being backward-looking (historical) and for concentrating solely on internal performance. However, strategic decision-making is forward-looking and an outward-looking process. Therefore, strategic management accounting information (which provides an external orientation and a future orientation) is likely to be more useful in supporting strategic planning and control.	☐
Traditionally, performance measurement has concentrated on financial performance. However, there is a danger that this will lead to a focus on short-term performance (eg, maximising short-term profit) at the expense of longer-term performance. Financial indicators also tend to be 'lagging' indicators rather than 'leading' indicators.	☐
In response to these concerns, modern multidimensional performance measurement systems (such as the balanced scorecard) include a range of non-financial performance indicators as well as financial ones. However, the ultimate goal of commercial organisations is likely to remain the maximisation of profit, so the financial aspects of performance cannot be ignored.	☐
When selecting performance indicators, an organisation should choose measures which indicate how well it is performing in relation to its critical success factors.	☐

The performance of their staff is likely to have a major impact on an organisation's performance, and therefore an important aspect of performance management is to consider how remuneration and reward packages will influence directors' and employees' performance.	☐
Increasingly, organisations are recognising that 'good ethics' is also good business. As a result, companies are publishing more information about their performance in relation to social responsibility and sustainability.	☐
The principles of integrated reporting reinforce the ideas of sustainability by looking at the way six categories of capital (financial, manufactured, human, intellectual, natural and social) influence an organisation's ability to create value in the short, medium and long term.	☐
The importance of sustainable development has also been formally recognised by the United Nations, in its Sustainable Development Goals which aim to end poverty, combat climate change, and fight injustice and inequality.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you areadvised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the criticisms of traditional budgeting? (Topic 1)
2.	How does strategic level information differ from operational information? (Topic 2)
3.	What are the advantages of using non-financial performance measures? (Topic 3)
4.	In addition to salary, how can directors be remunerated? (Topic 4)
5.	What is Integrated Reporting and what are the benefits it brings to an organisation? (Topic 5)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions areparticularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
2 Pamper Products Ltd	The first part of the question, like many SBM&L questions, requires you to use your business acumen, common sense and judgement to explain the most common reasons why companies may fail. The second part of the questionasks you to suggest non-financial performance measures in order to monitor performance using a balanced scorecard. Again, this requires a combination of technical knowledge and application to the scenario, in order to avoid giving a generic response.
4 KLP	Part (a) requires an understanding of responsibility accounting and how it could affect the design of a new performance reporting system. Review the syllabus material to ensure you are happy with the concept of responsibility accounting before attempting the question. Part (b) looks at how the expected behaviour of divisional managers should affect the design of the performance reporting system. It is important here to refer to the scenario in your answer rather than focusing purely on technical knowledge. Overall the question is a good demonstration of the combination of syllabus content and scenario application seen in SBM&L exams.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the nextchapter.

Technical reference

1 **IFRS 2,** *Share-based Payment*

- Requires an entity to recognise share-based payment transactions (such as shares granted, or share options) in its financial statements. This includes transactions with employees or other parties to be settled in cash, other assets, or equity instruments of the entity.

2 **IAS 19,** *Employee Benefits*

- Outlines the accounting requirements for employee benefits, including short-term benefits (eg, wages and salary, annual leave); post-employment benefits (eg, retirement benefits); and termination benefits. The standard requires that the cost of providing employee benefits should be recognised in the period in which the benefit is earned by the employee, rather than when it is paid or payable. The standard also outlines how each category of employee benefits are measured, and it provides detailed guidance about post-employment benefits.

Self-test questions

Answer the following questions.

1 AB Co

AB Co manufactures, markets and distributes a large range of electronic components, and it has established a significant market share across Europe and the US.

AB has three different divisions: the Domestic Electronic Components division (DEC), the Industrial Electronic Components division (IEC) and the Specialist Components (SC) division. The DEC division and the IEC division supply standard electronic components for domestic and industrial use, while the SC division supplies specialist components which are often unique and made to specific customer requirements. Each division has its own factory, with DEC's and IEC's factories based in the same Eastern European country, and SC's factory based in a Western European country.

All three divisions have been profitable over the past five years, although the board has traditionally taken a relatively cautious approach to providing strategic direction for the company. However, AB's institutional shareholders are now looking for increased growth and profitability. In the past, the institutional shareholders have been critical of AB's board for being overly cautious in their attitude to risk.

In AB's most recent annual report, published in March 20Y0, the board stated that AB's overall strategic aim is to: 'Achieve growth and increase shareholder returns by continuing to produce and distribute high-quality electronic components, and develop our international presence through expansion into new overseas markets.'

Two years earlier, in 20X8, AB established a separate trading company with a local partner in Asia to sell the IEC division's products. The ownership of the company is shared: 50% by AB and 50% with a local entrepreneur. AB chose this structure because of local legal requirements. A further legal requirement is that, in the case of the company ceasing to trade, AB will be required to reimburse the local entrepreneur the full amount of their original investment (which was $500,000).

This expansion was initially very successful, with good levels of demand being experienced for IEC's products. Recently, however, a number of environmental factors have rapidly changed. These include a forecast of declining demand for IEC's products in Asia, due to adverse world economic factors (which have slowed the growth in demand for electronic components in total) and a move towards protectionism in some Asian countries. The trading company had originally been forecast to make a profit of $2 million in 20Y1, but this figure has now been reforecast to $1.6 million.

IEC has also been unfortunate in that its direct labour costs in Asia have increased by more than the planned level. Economic intelligence suggests that this inflation will continue increasing for the next two years.

However, analysis by AB's management accountant shows that the trading company's costs (and in particular, its wage costs) are proportionally much higher than its competitors.

Requirements

1.1 Advise the board of AB how strategic management accounting could help it manage the performance of the trading company in Asia.

1.2 Discuss the factors which AB should consider before withdrawing from the trading company it has established with its partner in Asia.

2 Pamper Products Ltd

Pamper Products Ltd was purchased as part of a management buyout in 1996 by two brothers, Peter and David Sample. The company buys nail care and cosmetic products from a variety of suppliers in order to supply chemists and other retailers. Peter Sample was the sales director of the business before the buyout and David was an accountant working in practice at the time.

David organised the finance by remortgaging both of their houses and borrowing further from the bank. He has continued to deal with the financial and administrative areas of the company, whereas Peter is totally involved with suppliers and customers.

Peter was always an excellent salesman and his commitment to customer service is second to none. He deals personally with all the major customers and has an excellent relationship with them.

Peter has a similar commitment to his suppliers. He has tried to limit the number of suppliers but, as the company has grown, he has been forced to deal with a growing supplier base. Most of the purchases are from either the Far East or Europe. Initial concentration on a few major suppliers has ensured that Pamper Products has been able to have exclusive access to some products.

The company buys its products from a variety of manufacturers but markets them under its own brand name; it is able to charge premium prices for these products as a result of having created a trusted brand.

The company has gone from strength to strength in the years since the management buyout, with revenue increasing on average by over 20% per annum. This has led to an increased number of suppliers and an increase in staff from 7 in 1996 to 22 currently. The company has also expanded physically and has recently rented a new warehouse, investing in a state of the art inventory control system and a new computer system.

The initial bank loan was paid off according to its terms by 2001 but recently, a further loan has had to be taken out in order to finance the expansion.

Peter is committed to even further expansion but David is concerned that the company's systems and finances cannot keep up with the rate of sales growth and would prefer a period of consolidation. As an accountant, David is happy with the financial controls and performance measures that he has built into the system, but is concerned that possibly other non-financial measures might be just as important, particularly as the company continues to expand.

Requirements

2.1 Explain to David the most common reasons why companies may fail and suggest ways in which Pamper Products Ltd could avoid them.

2.2 Using the balanced scorecard approach, suggest other non-financial performance indicators that Pamper Products Ltd could use to monitor its overall performance as it continues to expand.

3 YCT

YCT is a family-owned company employing 40 people, which builds and sells medium-sized yachts. On average, YCT's yachts normally retail for around £110,000 each.

YCT operates in a very competitive market. Its yachts are usually bought by amateur sailors with high disposable incomes who value quality, reliability and performance. In 20Y1, YCT plans to sell 30 yachts. YCT's Managing Director has a vision for the company to be 'regarded as the best yacht builder for the private owner'.

YCT has always emphasised the high quality of its yachts and knows that its customers are very knowledgeable about yacht design and performance. Each yacht is built to a specific order and there is usually a period of at least one year between an order being placed and the yacht being delivered to the customer. YCT's construction processes are very traditional: most of its designs are at least 20 years old and much of the construction work on its yachts is done by hand. YCT regards its workforce as 'craftspeople' who have learned their skills through their work experience. YCT employs school- leavers and provides apprenticeships lasting seven years. However, most of its competitors employ university graduates who have studied yacht design and construction.

YCT designs all its yachts manually, which is very time consuming, although most of its competitors now use CAD/CAM* suites for their designs. YCT does not have any staff with CAD/CAM experience. YCT uses natural materials in the construction of its yachts: for example, cotton for the sails. However, recently some natural materials have become difficult to obtain and the prices of these have risen by as much as 35% in the last two years. Many of YCT's competitors have replaced natural materials with synthetic ones, as these are easier to obtain, are cheaper and give enhanced performance.

YCT uses a standard costing system for its manufacturing operations. YCT employed a consultant to design the system 20 years ago, and the company still uses this system today. The Managing Director (MD) relies on the standard costing system which is his only control system for the company. The MD knows that the manufacturing cost of a yacht amounts to 60% of its total cost and believes that if he is in control of 60%, he is in control of the majority of cost. However, recently the MD has experienced some frustrations with the control system because it only reports financial results. The MD would like a system that gives him integrated control over all aspects of the business, and has been considering the use of a balanced scorecard.

YCT's business comes from repeat orders and recommendations. However, it has experienced criticism in the last year because it failed to meet the promised delivery time for 25% of its orders and has lost business because the potential customers said that YCT's yachts looked 'old-fashioned' and were 'too slow'.

Cash flow is particularly important for YCT, because of the long lead times for each yacht, and has been under pressure recently. YCT has had to increase its overdraft facility by $75,000 to $175,000 and this is nearly fully used. Every year since its inception, YCT has reported a profit but in 20Y0, its ROCE was 3% which the MD has stated is unacceptable. He has asked senior members of staff for suggestions about how to increase YCT's profitability.

One such suggestion was that YCT should look to reduce its costs, while another was that the company should look to increase its revenues by developing and marketing a new range of yachts.

[*CAD/CAM: Computer-Aided Design, Computer-Aided Manufacturing]

Requirements

3.1 Briefly discuss the weaknesses of YCT's current control system.

3.2 Advise the MD on how the balanced scorecard could be applied and used with YCT. You should also suggest and justify one measure for each of the balanced scorecard's perspectives.

3.3 In relation to the growth and survival of YCT, evaluate the two suggestions for increasing the company's profitability.

4 KLP

KLP has been growing its business successfully for a number of years, and the business has now grown to a size where the board considers it necessary to establish four divisions as investment centres and delegate more decision-making authority to the management of these divisions.

The authority delegated to the divisional managers will include decision-making responsibility for new capital investment projects for their divisions, within overall budget guidelines. The board has also decided that a reward system should be introduced, and that divisional managers should receive annual bonuses based on the profitability and ROI of their division. The board considers that an incentive system of this kind will be necessary to provide the motivation for divisional managers to work for the long-term growth and development of the company.

At the moment, the board receives performance reports for the company as a whole. The most recent annual report is summarised below.

	£m	£m
Revenue		620.2
Manufacturing costs		
Direct manufacturing costs	142.6	
Manufacturing overhead costs	186.3	
		328.9
Gross profit		291.3
Administration costs	69.8	
Selling and distribution costs	105.3	
Finance costs	11.5	
		186.6
Net profit before taxation		104.7

The four divisions are largely independent operating units, although there are transfers of components and services between some divisions. As there is no external market price for most of the services and components transferred, the board has decided that transfers will be priced at cost plus a suitable margin for profit, although the divisional managers should have the freedom to negotiate the transfer prices between themselves.

The group management accountant has been asked to design a performance reporting system that will be appropriate for the new divisional structure and the requirements for responsibility accounting. Several issues have not yet been fully considered.

(1) One of the divisions produces high-technology components. The rate of innovation for new components is rapid, and it has been estimated that an 80% learning curve applies to the manufacturing work in this division.

(2) The group management accountant is concerned about giving too much emphasis to profit and ROI within the performance reporting system.

(3) The problems of controllability within a responsibility accounting system have not yet been properly addressed.

(4) It is already clear that the managers of the new investment centres will respond to the bonus incentives on offer and that the performance reporting system that is introduced will need to encourage them to take decisions that are in the long-term interests of KLP.

Requirements

3.1 Assess how the requirements for responsibility accounting should affect the design of the new performance reporting system.

3.2 Assess how the expected behaviour of the divisional managers should affect the design of the new performance reporting system.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Strategic criticisms – The criticisms are strategic if they relate to aspects of STU which are fundamental to the university and its objectives as a whole, and to its long-term ability to achieve those objectives.

The criticism that **the overall quality of education** is 'Poor' appears to be a strategic criticism, given that one of STU's main purposes will be to provide the highest quality of education that it can to its students.

Operational criticisms – By contrast, operational criticisms will relate to weaknesses or problems in the specific, day to day activities which STU carries out in order to achieve its financial or operating objectives.

In this respect, the fact that STU could not produce a **headcount of the number of students enrolled**, and the fact that there were **discrepancies in cash counts**, both seem to be operational criticisms.

Tactical (or managerial) criticisms – However, a number of the criticisms seem to relate to issues between these two extremes, meaning they are best viewed as tactical or management issues. In other words, they relate to the way that resources are obtained or used to try to achieve STU's objectives as effectively and efficiently as possible.

For example, the high numbers of students dropping out of their courses, or complaining, suggests that STU is not achieving its educational objectives as well as it could be. Equally, the fact that it is operating at a deficit, and that it is not managing its debtors effectively, suggests it is unlikely to be performing as well as it could be financially.

Computing facilities – The reference to computing facilities, and the management team's response to it, also gives an indication of the importance **of strategic objectives being linked to the tactical and operational level**. It is not clear whether STU's intention has simply been to provide more computing facilities or whether it has intended to use computer technologies to enable particular types of learning. However, if there was a particular educational strategy, it seems this has not been communicated clearly to those responsible for implementing it throughout the university (in the different academic departments, or the libraries for example) so consequently STU is not making the best use of the computing facilities it now has.

Answer to Interactive question 2

It is important for the hotel to measure financial performance, but equally there are a number of key non-financial factors which will influence financial performance.

One of the key issues will be the occupancy levels; keeping these as high as possible, but doing so without reducing the room rate so far that it damages profitability.

Another key success factor is customer satisfaction, so measures relating to customer satisfaction and quality of service will be very important.

As well as measuring Taybridge's own performance, it could also be useful to benchmark its performance against other, similar hotels in the area.

Possible performance measures include:

Financial performance: Revenue growth; operating profit margin; profit and loss per department, variance analysis (eg, expenditure on wages, power, catering, bedrooms and so on); revenue per available room; profit per available room.

Non-financial performance

Resource utilisation: Occupancy rate (rooms occupied/rooms available); energy and water usage per room.

Quality of service: guest satisfaction scores (results of questionnaires; TripAdvisor scores/comments; level of repeat bookings (customer loyalty). Number of customer complaints. (Taybridge could also measure employee satisfaction levels, because this could affect the quality of service staff provide to guests.)

Competitive performance: Market share (rooms occupied as a total percentage of rooms available locally); competitor occupancy; competitor prices (and how these compare to Taybridge's).

Answer to Interactive question 3

Link to strategy – Do all the KPIs reflect the company's strategy, and are they material to its ability to create and sustain value? Are the KPIs clearly aligned to Kaypea's business model and strategy?

Communication – Does each KPI improve a reader's understanding of the company's performance, current position or prospects?

Clarity – Is the purpose of each KPI sufficiently clear and understandable to a reader of the annual report?

Consistency – Do the KPI selected provide a consistent measure of performance compared to the previous year's KPIs (both in terms of the metrics chosen, and the way they are calculated)?

Reliability – How reliably and accurately can each KPI be measured? Can the process for calculating it be re-performed?

Neutrality – Do the KPIs reflect the underlying reality of the company's performance? Would other methods of measuring performance (for individual KPIs) yield similar results?

Comparability – To what extent do the selected KPIs provide comparable measures of performance amongst the company's competitors or similar organisations?

Completeness – Do the KPIs as a whole give a balanced view of the company's performance, from both a financial and non-financial perspective?

Answer to Interactive question 4

The main focus of the managers' reward scheme is on room occupancy rates. Therefore, the managers are concerned with simply filling rooms, rather than looking at other aspects of performance.

They are using a variety of ways to fill rooms, but these are proving damaging to the hotels.

Broker sales

The hotels advertise on online brokerage sites such as lastsecondhotels.com. These sites allow customers to compare prices so, in order to attract guests, Stayzee has to offer low prices. The quote on the website, stating that it is a 'value for money hotel', indicates they are doing this. This suggests Stayzee's hotels will now be making a lower profit margin than they historically did as mid-market hotels.

Customer comments on the lastsecondhotels.com website are also likely to encourage potential guests to wait until the last minute to book, in order to get bargains. If occupancy looks like it will be low, managers will reduce rates as illustrated by the quote, 'very easy to get rooms at half the advertised rate'. Again, this puts downward pressure on the hotels' profit margin.

In addition to the lowering of prices, Stayzee will have to pay a commission for guests who have come to them via the brokerage website. This further reduces the profit margin it earns.

Group sales

Another way Stayzee has been increasing occupancy rates is through offering packages for school groups. However, again the profit margins on these will be lower than those earned when the hotel catered for mid-market guests.

The use of the hotels by school parties, along with the fact that a large percentage of its bookings are now received through lastsecondhotels.com, has led to a shift in customer perceptions. Stayzee Hotels is now viewed as a budget hotel chain rather than a mid-market hotel chain, which has historically been its market position. The presence of school groups may deter mid-market, higher value customers.

Manipulation of rates

As the bonus is based on a percentage occupancy rate, the managers have an incentive to reduce the number of beds available for use, as well as to get bookings for the rooms. Some managers are declaring rooms unfit for use. If the rooms are not unfit for use, this means the managers are artificially increasing their bonus while not generating any revenue by having guests staying in the room.

Cutting costs

As a result of room rates being offered at a discount, managers need to cut costs even more to make a profit on them. There is evidence that costs are being cut in a number of areas:

- **Cheap ingredients** – Customer feedback on the website noted that the restaurant food was poor quality, suggesting managers are trying to reduce costs by using cheaper ingredients in the restaurant.
- **Repairs and maintenance** – Customer feedback on the website also noted that 'The bath was cracked and the windows were dirty'. So it appears that managers are saving money but not arranging repairs when they are needed and by reducing how often the hotels are cleaned.
- **Low capital investment** – Guests have commented that there were no internet connections in the rooms or public areas. This suggests that managers have preferred to save money rather than investing in their hotels. This illustrates a short-term focus because it will deter guests in the future.
- **No investment in staff** – Guests have also commented that the staff were not very helpful and were uncommunicative. Again, this suggests that either costs have been cut by hiring cheap, less competent staff, or by not giving staff proper training when they join the hotel. Either way, measures that have been designed to save costs are leading to a decline in the service being offered to customers.

- **High prices on ancillary services** – The scheme is also leading to inconsistencies in the hotel's strategic approach. While managers are trying to cut costs in a number of areas, they are trying to boost profit by charging high prices on food. This has led to a reduction in demand as guests on cheap, last-minute deals are less likely to want to dine in the restaurant than the guests Stayzee traditionally catered for. This is evidenced by the quote 'Cheap, but don't eat there. The price for breakfast was extortionate'.

The conflict between the high prices charged for meals and the poor-quality food offered is indicative of a confused strategy. Ultimately, measures to cut cost have led to a decline in levels of customer service and perception of the hotel. However, this is unlikely to change, as there is no incentive in the bonus scheme to improve customer service. The management reward scheme has entirely the wrong focus and has led to a severe decline in the reputation and performance of the hotels. Rather than rewarding occupancy rates, the scheme should focus on customer service, quality and providing a good experience for its customers.

Answer to Interactive question 5

	A	B	C	D	E
1		**Actual**	**Budget**	**Variance**	**Favourable / Adverse**
2		£	£	£	
3	Sales	261,000	287,000	(26,000) [1]	Adverse [2]
4	Cost of sales	104,400	114,800	(10,400)	Favourable [3]
5	Gross profit	156,600	172,200	(15,600)	Adverse
6	Marketing	12,500	13,000	(500)	Favourable
7	Staff costs (manager)	27,500	27,500	0	Favourable
8	Part-time staff costs	36,500	40,000	(3,500)	Favourable
9	Other running costs (eg, rent, heat and light)	26,000	25,000	1,000	Adverse
10	Shop profit	54,100	66,700	(12,600)	Adverse

[1] =B3-C3. The formula can be copied in D4:D10).
[2] =IF(B3>=C3,'Favourable', 'Adverse')
The formula can be copied in any revenue or profit cells; E5, E10.
[3] =IF(B4<=C4, 'Favourable', 'Adverse')
The formula can be copied in all cells looking at cost; E6:E9.

Analysis of the results shows that both gross and net profit actual results are adverse to the budget, meaning that shop managers will not be awarded a bonus.

Problems with using shop performance indicators as the basis for assessing shop manager's performance:

Accountability – The shop manager should only be held responsible for those aspects of performance he or she can control. However, the branch information used does not appear to distinguish between the factors that the shop managers can control and those which they can't.

Controllable and non-controllable costs – A number of non-controllable costs are currently included in the manager's performance assessment. In particular, the shop manager will have very little scope to control property costs, because the rental contract and other contracted costs (such as heat and light) are managed by the head office. The shop managers may have some control over the amount of heat and light that are used in their shops, but not over the unit prices paid for these utilities.

Similarly, the managers can't control their own wages. However, it is reasonable to classify the **part- time staff costs as controllable**. The managers manage the staffing for their shops, and so they could save on part-time staff costs by working longer hours themselves.

Consequently, a fairer way of assessing the shop managers' performance would be to distinguish costs into two groups: controllable (marketing; part-time staff) and non-controllable (managers' wages; property costs).

Budgets – Another problem with TVW's current performance management process is its budgeting process. If the manager's performance is assessed by comparing actual performance to budget, then it is important that the budgets are realistic and achievable.

However, the original sales budgeted (which showed the same figure as the previous year) seems unrealistic, given that there has been a 10% fall in sales across the industry as a whole.

Consequently, it would be useful to break down the overall profit variance (£15,600) into a planning variance (which adjusts for the 10% drop in industry sales) and an operational variance (showing the variance in the shop's own performance after adjusting for the 10%):

	A	B	C	D
11	**Planning variance**		£	**Favourable / Adverse**
12	Original sales	(1)	287,000	
13	Revenue variance due to economic conditions (10%)	(2)	28,700	Adverse
14	Planning variance (Gross margin 60%)		**17,220**	Adverse
15				
16	**Operational variance**			
17	Actual sales		261,000	
18	Revised budgeted sales	(1) – (2)	258,300	
19			2,700	Favourable
20				
21	Operational variance (Gross margin 60%)		**1,620**	Favourable

CHAPTER 4

The operational variance more accurately reflects the shop manager's work in promoting sales, and here we can see that the manager's efforts have actually reduced the fall in gross profit by £1,620. The overall gross profit variance (of £15,600, adverse) reflects an adverse planning variance of £17,220 partially offset by a favourable operational variance of £1,620.

Controllable profit – Following on from this, we could suggest that TVW should show a controllable profit for each shop, as well as the overall shop profit.

The shop manager's performance (and hence their eligibility for any bonus payments) should then be assessed on the controllable profit performance of their shop only.

If we apply this logic to the manager's shop then, instead of the manager facing an adverse variance of £12,600, they would have achieved a positive variance of £5,620, and would therefore have been entitled to a bonus. This helps explain why the manager is so unhappy about the current way performance is being measured:

	A	B
22	Original variance (£)	(12,600)
23	Add back:	
24	Gross profit planning variance (£)	17,220
25	Manager's wages (£)	-
26	Property costs (£)	1,000
27		5,620

Discounting – One area where the managers do have a degree of autonomy is in setting prices, because they can vary prices by up to 5% from the standard price list; for example, to reduce prices of a particular product to boost sales of it. Therefore, this is an area of the manager's performance which TVW could justifiably measure; for example, by looking at the sales price and volume for individual product lines, and then looking at the impact of any promotions on gross profit.

However, in this case, it appears that the manager has not made any significant use of this authority because the actual gross margin percentage achieved for the year (60%) has remained constant with the budgeted margin of 60%. If the manager had applied any price discounts, this would have led to a reduction in the margin percentage.

Answer to Interactive question 6

In an assurance engagement, a practitioner aims to obtain sufficient appropriate evidence in order to express a conclusion which enhances the degree of confidence intended users have about the subject matter information in a report. (ISAE 3000, *Assurance engagements other than audits or reviews of historical financial information*, and the AA1000 Assurance standard could provide useful frameworks for a practitioner in carrying out the engagement, if they decide to accept it.)

However, a key consideration for the auditor in this case is how they will be able to obtain **sufficient, appropriate evidence** in order to express a conclusion on the report. Specifically: what knowledge and skills will the team carrying out the engagement need in order to assess the report? And what evidence will be available for them to assess?

Knowledge and skills required in the engagement team – The scope of the topics included in the report are non-financial and could be wide-ranging in nature – for example, it may include a range of sustainability issues and emissions across the food manufacturer's supply chain. As such, the auditor needs to consider the make-up of the assurance team required, and the extent to which external subject specialists will be necessary (eg, sustainability professionals, pollution management experts and ecologists, amongst others) to work with the firm's accountants. Depending on the range of skills required, the auditor will then need to consider the feasibility of assembling a team with those skills in order to carry out the engagement. Since engaging external exports can be expensive, the auditor will also need to consider the impact of this on the fee charged for the assurance engagement.

Evidence required – In relation to the evidence required, an important consideration will be the subject matter for the report. Does the company want assurance over the **process** by which the report is produced and the way the company communicates its sustainability performance, or does it want assurance over the accuracy of the **measures** reported, or both?

The expectation is that the report will include some quantitative indicators, so – if the company wants assurance over the indicators – one of the considerations for the auditor is how they will be able to gather sufficient evidence to assess those indicators.

Type of assurance required – More generally, the auditor needs to consider the potential scope of the engagement and the needs of the intended users of the report, to determine whether this should be a limited or a reasonable assurance engagement. The nature of the engagement will affect the nature and extent of the work required by the auditor and the procedures to be performed, which could in turn affect how feasible it is for the auditor to carry it out.

Subject matter – In addition, the auditor needs to consider issues relating to the subject matter in the report, because these could also affect the degree of work the auditor needs to carry out to reach their conclusion. Points to consider here include: How well developed is the company's management control over the subject matter? What degree of documentation is available regarding the subject matter? What will be the most cost effective way to address the needs of users of the report, and achieve an appropriate degree of credibility over the subject matter?

Independence – Finally, as well as considering any 'technical' issues around the engagement itself, the auditor should also consider whether the engagement will present any threats to their independence as the company's auditor, and if so, whether any safeguards can be put in place to reduce those threats to an acceptable level. If the threats cannot be mitigated sufficiently, then the auditor should not take on the assurance engagement.

Answer to Interactive question 7

7.1

TCFD category	Suggested assurance procedures
Governance	Obtain copies of minutes for the main board and other relevant committees and seek evidence that climate-related risks and opportunities have been addressed proportionately alongside other business. Inspect a sample of executive directors' remuneration contracts for evidence of GHG emission reduction targets and reconcile to the disclosures made. Review minutes of management meetings for evidence of discussion of net zero by 2035 and ownership of relevant budgets as part of the £1 billion commitment.

TCFD category	Suggested assurance procedures
Strategy	Request documentation that shows the reputation analysis undertaken by the company in relation to the proposal to switch from high to low GHG emission products. Seek evidence of the impact of reduced revenues from adding carbon prices and switching to lower GHG emission products. Request documentation that shows the analysis of lower fuel receipts, proposed demand changes to electric car usage and costs of installing charging points. Investigate whether charging points exist that will supply the right kind of electricity in the likely time taken by a customer on a typical visit.
	Seek confirmation of the calculation of the 8% estimate for food waste. Request evidence of the wider rollout of food donations to charities and farms. Obtain samples of food packaging and determine whether there has been a switch to support the company's proposed behavioural tips on reducing food waste.
Risk management	Request evidence from board and local management level that both 'top-down' and 'bottom-up' risk identification processes exist and are used by the company. Inspect the company's climate-related risk register (or similar) for confirmation of the assessment methodologies used in the disclosures (impact and likelihood). Select a sample of climate-related risks and obtain evidence that supports the assertion that the appropriate individuals or bodies have been assigned to monitor and oversee each risk selected.
Metrics and targets	Obtain source data for all targets in the disclosures and reconcile to the amounts disclosed in both current and previous year. For a sample of ratios used, recalculate the metrics to ensure they are accurate. Obtain details of all electricity usage and recalculate the percentage of the supply that comes from renewable sources. Obtain data on water usage over the reporting periods and reconcile the metrics recorded. Confirm the methodology used to identify healthy and sustainable diets and reconcile to the amounts used in the metric disclosed. Obtain evidence of amounts used for reporting tonnages of food waste going to anaerobic digestion. Inspect credentials of independent sustainability standards schemes for soy, palm, timber and cotton and compare these initiatives to a sample of sourced products disclosed by the company. Request details of woodland trees planted and consider physical verification that they exist and they have been planted by the company.

Tutorial Note

For illustrative purposes, there are more than two assurance procedures shown in the answer above.

7.2 It is implicit in this discussion about the importance of assurance that these TCFD disclosures are considered important enough to be disclosed in the first place. In the same way that general purpose financial information requires assurance (via the audit process) because it matters so much to so many stakeholders, the same must also be said for climate-related risks and opportunities.

However, other than just being considered important, why will the provision of assurance on this information make a bigger difference than just disclosing it? The benefits of having such disclosures scrutinised by an effective assurance provider could therefore be summarised as follows:

- Reduces the risk of 'greenwashing' to artificially improve the company's reputation, increasing the amount of trust in the information disclosed due to the attention of a 'professionally sceptical' assurance provider.
- Supports decision making using all the information available on the company, not just that which is legally required, by increasing the amount of trust in what the company has disclosed.
- Supports the company's bid for any capital required to implement its initiatives.
- The assurance process may identify shortcomings in the processes used by J Sainsbury plc in making these disclosures that could benefit the company in future years.
- If the information disclosed by J Sainsbury plc is considered trustworthy, it can be aggregated with other sources of information from across the grocery sector, allowing a more accurate view of the climate-related risks and opportunities faced by the industry.
- The term 'effective' is important as it adds to the credibility of the assurance process. J Sainsbury plc could ask its internal auditors to provide this assurance but there is always the risk that pressure could be put on them, leading to questions over the objectivity, professionalism and competence of the work done – should it be performed by an independent specialised firm, the benefits would probably be enhanced.

Answers to Self-test questions

1 AB Co

1.1 Strategic management accounting – Unlike 'traditional' management accounting which looks primarily at internally generated financial information, strategic management accounting looks at information that relates to external factors, and it looks at non-financial as well as financial information.

Competitors' costs – For example, as well as looking at the trading company's own operating costs and margins, strategic management accounting would encourage AB to look at competitors' costs. This will help focus attention on the need to control the trading company's costs if it is going to compete successfully. For example, why are the trading company's wage costs proportionally so much higher than its competitors' costs?

Given the nature of IEC's product (standardised electrical components), cost efficiency is likely to be an important factor in the trading company's competitiveness. There is likely to be little scope for differentiation as a competitive strategy.

Market growth – Strategic management accounting will also encourage AB to look at market size and growth, and the trading company's share of the market. The scenario highlights that the downturn in economic conditions has slowed the growth demand for electronic components as a whole, which could intensify competition in the market. Instead of market growth being a source of increased sales, the trading company will now have to increase its market share in order to increase its sales.

Although the scenario mentions the presence of competitors, it does not give any indication of the number of competitors or their size relative to the trading company. However, these factors could both affect the trading company's ability to compete successfully in the market.

In this respect, strategic management accounting's **external focus** is very important: AB needs to understand the market environment in Asia in order to analyse the trading company's current performance, and then to evaluate future strategies for the company.

Analysis of current performance – Strategic management accounting can contribute to the trading company's success by **monitoring its performance** and results compared to its competitors, and then assessing whether its current strategy appears to be working successfully or not.

For example, the trading company's revised forecast suggests that its profit for 20X1 is now expected to be 20% lower than had originally been expected. Some of this shortfall may be due to an overoptimistic budget, since the trading company is still a relatively new entrant to the Asian market. However, it could also be an indication that the trading company has not been able to sustain its initial success and break into the market as well as it had hoped.

Therefore, it will be useful to compare the company's performance against its competitors, for example, to see the extent to which their revenues and profits are growing or falling.

If it appears the trading company is performing relatively worse than its competitors, then AB should consider how it could revise its strategy to help improve the company's performance.

Forecasting – Strategic management accounting can also be used to help forecast performance.

AB's forecasts should not look solely at the trading company's own performance but should also look at competitors' performance and market trends in general. For example, how realistic is the level of forecast sales growth in the context of a slowdown in the market?

Equally, economic intelligence suggests that wage inflation is going to continue increasing over the next two years. However, the reason the trading company's wage costs are currently much higher than its competitors' may be that it is paying above the market rates, in which case it may be able to offer lower annual wage increases than many of its competitors who are currently paying lower wage rates. If not, the trading company will need to review its staffing model and its labour productivity, and try to reduce its wage costs relative to its competitors.

1.2 Sales potential – Despite the trading company not seeming to be as profitable as had been hoped, it is still generating a profit for AB (with its 50% share of the company's profit expected to be around $800,000 in 20Y1). It is not clear how much AB has invested in the company, or what its target rate of return is on any investments.

Although the local entrepreneur has invested $500,000, it is likely that AB has invested more, given the level of profit the company is generating.

Therefore, before deciding whether to withdraw, AB needs to consider how profitable it expects the trading company to be in the future, and equally whether it feels it could invest its capital more profitably elsewhere.

Impact of environmental factors – The trading company's performance appears to have been adversely affected by **economic factors** (economic slowdown) and **political factors** (protectionism) in the external environment. However, the respective impact that these two factors have had on the trading company's performance is not clear; nor is the impact that other factors have had on its performance.

Long-term or short-term impact – Although economic conditions have worsened at the moment, they should improve again in the future, at which point AB might expect demand to increase again. Therefore, the protectionist policies introduced by some of the Asian countries may be a more significant factor, if they are expected to remain in place for the longer term.

Alternative business structures – Although AB is considering withdrawing from the trading company, this need not mean it withdraws from Asia completely. Although the trading company does not seem to have been as profitable as it had hoped, AB should consider whether it stops selling its products in Asia altogether or whether it needs to find an alternative channel. For example, if there is still a market for IEC's products in Asia, it could consider using Asian sales agents to act on its behalf.

Strength of competition – However, AB should also consider the strength of **competitive rivalry** within the Asian markets, because this will affect its profitability, both in the short term and the longer term. Alongside this, AB could also consider factors such as the **threat of new entrants**, and the **bargaining power of customers**, which could also affect its profitability.

Exit barriers – AB and the local entrepreneur both have 50% shares in the trading company. If AB withdraws, the local entrepreneur will have to decide whether he wants to acquire AB's share and try to maintain the trading company himself, or whether the company should cease trading. If the company ceases trading, AB will be liable to pay the entrepreneur $500,000.

This exit payment could affect AB's decision of whether to withdraw or not.

Wider implications – The trading company seems to have been AB's first significant venture into Asia. If AB withdraws from the venture within about three years of establishing it, this could be damaging for its reputation. This could be problematic, either if AB wants to continue selling its products through sales agents, or if, in future, it wants to re-establish a joint venture company.

(As we have noted earlier, although market conditions have worsened at the moment, they should improve again in the future, at which point AB might look to expand into Asia again. But if AB has a poor reputation in Asia, local businesses will be reluctant to become venture partners with it.)

Business portfolio – Moreover, before withdrawing from the Asian company, AB should critically assess the growth prospects of its current European and US markets. If there are limited growth opportunities in these markets (for example, because they are **more mature** than the overseas markets), the board might be advised to persevere with looking at expansion into new overseas markets.

Fit with strategic aims – AB has stated in its annual report that it wants to develop its international presence by expanding into overseas markets. Establishing the trading company in Asia is a way of helping to achieve this aim. By contrast, withdrawing from the Asian market would seem contradictory to this aim, and to the shareholders' wishes for increased growth and profitability.

2 Pamper Products Ltd

2.1 There have been many attempts to find a methodology to predict corporate decline, or companies at risk of decline. This interest in the subject means that the main reasons for corporate decline are heavily documented. There are many reasons why companies fail and, in most cases, it will be due to a combination of such reasons.

Sales and profitability

Declining profitability is a clear reason for the eventual failure of a company. A decline in profits is not always accompanied by a decrease in sales volume, but this is often the case. As sales fall, the same level of fixed costs must be paid from reduced revenue, inevitably reducing profits. In addition, if a company expects increases in sales volume that do not materialise, this will also cut profits if the company has invested further, in staff, plant and inventories, for example. An important implication of this for Pamper Products is that a close eye must be kept on costs of all kinds. The need to seek out low-cost suppliers may be of particular relevance, considering the past policy of only dealing with a few of those available.

Gearing and liquidity

As a company's borrowing increases, so do the costs of servicing loans. This can significantly increase the risk of the company and in extreme cases, if the loans or debentures are not serviced, they could be called in and the company put into liquidation. The Sample brothers have borrowed extensively, so they should take great care over this. Allied to this problem is that of a decrease in liquidity. A company can still be profitable but if it cannot pay its debts as they fall due, then eventually it will fail. One particular problem here is where seemingly growing companies fall foul of overtrading. This occurs when sales are increasing and, therefore, so are inventory-holding costs and payments to suppliers but these costs are not being matched in cash terms by money received from customers. Pamper Products has expanded rapidly and has avoided this problem so far, but the brothers must continue to take care of their cash flow.

Suppliers and customers

A company can appear to be successful but, if it is over-reliant on a few suppliers or customers, then the failure of one of these parties can have a disastrous knock-on effect. If a principal supplier fails, this will have a major effect on the ability of the company to supply its own customers. The loss of a major customer means a significant fall in turnover and cash flow. This calls for close management attention.

Management

So far we have considered largely financial reasons for company failure. However, Argenti argues that many causes of corporate failure are due to poor management. For example, an autocratic chief executive, a passive board of directors and a weak finance director is a common scenario of corporate failure. Finally, there is always the issue of complacency. If a company is seemingly successful, then senior management may become complacent about performance, growth and innovation, which will eventually lead to a loss of market share and declining revenues. The implications for Pamper Products are obvious.

Note: The balanced scorecard is a useful and popular model, both in an examination context and in the real world. Make sure you have learned and understood the nature of the four perspectives and expect to have to suggest relevant possible measures for each one.

A **balanced scorecard** considers performance indicators for a business within four

perspectives:

- the financial perspective
- the customer perspective
- the internal business perspective
- the innovation and learning perspective

While these four categories may be regarded as widely applicable, it is important to understand that **different organisations will require different measures** for each, if the approach is to be useful. For example, a woodworking business would almost certainly be very concerned about the safe use of its machinery: however, this would hardly be a topic of concern for most financial service businesses.

Product safety is likely to be an important concern for Pamper Products, dealing as it does in cosmetics.

As David is quite happy with the financial performance measures, we will concentrate on the other three perspectives.

Customer perspective

Performance measures in this area should measure how satisfied the customers are with the **quality of product** and **level of service** provided by the company. Possible performance measures might include:

- sales returns levels
- percentage of customers who do not return for repeat business
- levels of customer complaints

Internal business perspective

This perspective is concerned with the efficiency of the company's internal systems. Possible performance measures might include:

- percentage of products returned to suppliers
- percentage of sales of products exclusive to Pamper Products
- labour turnover levels
- total number of suppliers

Innovation and learning perspective

This perspective is concerned with how the business is developing and moving forward, both in its products and in its methods. Possible performance measures might include:

- time taken to introduce a new product
- percentage of sales revenue generated by products introduced within the last year
- extent of management training undertaken

3 YCT

3.1 **Weaknesses of control system**

Only focuses on financial **performance** – The current system only reports financial results, and the absence of any control over non-financial aspects of performance seems to be proving a problem for YCT. For example, its poor performance in relation to **non-financial indicators**, such as innovation ('old-fashioned' yachts) and product delivery (delivery times not being met), has led to YCT losing business.

Not aligned to customer requirements – The key features which customers are looking for in their yachts are quality, reliability and performance. Again, though, YCT's current system does not report on any of these attributes.

Lack of integrated control – The MD has expressed his desire to have a control system that gives him 'integrated control' over all aspects of the business, but the current system does not give him this level of control.

Incomplete cost control – Moreover, the current system does not even control all the costs within the business, because it only deals with manufacturing costs. Although manufacturing costs make up 60% of YCT's total costs, this still leaves 40% uncontrolled, and many of these costs (such as marketing costs) may be unrelated to cost drivers in the manufacturing department.

Age of system – The current system was installed 20 years ago. Developments in technology during this time mean that the system is unlikely to be as effective as more contemporary systems, and therefore, YCT could benefit from having a more up to date system.

Although the unacceptably low ROCE is not entirely due to the control system, this, coupled with the pressure on YCT's cash flow and the criticisms from customers, may suggest that the current system is not allowing the MD to manage the business as effectively as he could do.

Note: The question only asked you to suggest one measure for each perspective of the scorecard. For tutorial purposes, we have included a range of measures you could have included for each perspective.

Determine objectives and measures – The balanced scorecard seeks to translate mission and strategy into **objectives** and **measures**, looking at both financial and non-financial perspectives on performance.

Introducing the balanced scorecard should help make YCT more strategy focused, and enable the company to integrate the various features (financial and non-financial) which will help it to be more successful. The scorecard can do this by translating the company's mission and strategy into specific objectives and targets for each of the departments, with these objectives being set against the different perspectives of the scorecard.

Link strategy to operations – In practical terms, YCT will need to identify what key areas of performance it needs to improve, in order to deliver its strategy successfully, and then it can use the scorecard to measure how well it is performing against the targets it sets for each of those key areas of performance.

Financial perspective

Operating profit margins – Although YCT is profitable, its ROCE is now unacceptably low. Improving its operating profit margins (profit before interest and tax) should help it improve its ROCE.

Net cash flow – The long lead times for each yacht means that cash flow is very important for YCT, and it has been under pressure recently. If YCT could encourage customers to pay more quickly (or possibly even pay in instalments as the yachts are being built) this should help reduce the pressure on its cash flow and its overdraft.

Customer perspective

Achieving delivery times – In the last year, YCT failed to meet the promised delivery time for 25% of its orders. This appears to be a major weakness for the company, so it needs to improve its performance in this respect in order to help retain existing customers and encourage them to recommend YCT to other potential customers.

Customer satisfaction – YCT's business comes from repeat orders and recommendations, which means that customer satisfaction is vital to maintain future orders. Given the competitive nature of the market, if customers are not happy with their quality and performance of their yacht, or the service they have received from YCT (eg, late delivery) they are less likely to make a repeat order in future or to recommend YCT to other potential customers.

Order book – As each yacht is built to order and there is a period of at least a year between an order being placed and a yacht being delivered, it is important for YCT to know it has continuity of demand. YCT can gauge the continued popularity of its yachts by the number of people who have placed an order for one.

Innovation and learning perspective

Number of design innovations – Recently, YCT has been losing business because potential customers have said that YCT's yachts look 'old-fashioned' and were 'too slow'. At the same time, YCT's costs have been rising due to the difficulties of obtaining the natural materials it needs. However, if YCT were to change its manufacturing process to use synthetic materials, this would allow it to reduce its costs and improve the performance of its yacht. Therefore, design innovations can improve efficiency and reduce costs at the same time as meeting customers' requirements better.

Staff training and qualifications – YCT employs school-leavers and develops and trains them internally, unlike most of its competitors who employ university graduates who have studied yacht design and construction. This may be contributing to the criticism that YCT's yachts look old-fashioned, because YCT's staff are not familiar with new ideas and new techniques. If this is the case, it will be important that YCT either recruits some staff who are familiar with these new techniques, or sends its existing staff on external training courses so that they can learn them.

Similarly, the lack of staff with CAD/CAM experience appears to be slowing down the design process which, in turn, could have a detrimental effect on YCT's cash flow.

Internal business perspective

Build time per yacht – If YCT was able to reduce the length of time it takes to build a yacht, it should be able to reduce the proportion of yachts it delivers late, sell more yachts (thereby increasing revenues and profits) and use its working capital more efficiently (in turn reducing the pressure on its cash flows).

Materials price variances – While we could argue that using traditional skills and processes is a differentiating factor for YCT, in practice it appears that YCT's use of traditional processes and materials is actually reducing its competitiveness and profitability. For example, the prices of some of YCT's natural materials have risen by up to 35% in the last two years. Highlighting these price variances is important, and it may prompt YCT to change some aspects of its manufacturing process.

3.2 Cutting costs – The suggestion to cut costs appears to be a short-term solution. Reducing expenditure could help YCT improve its cash position in the short term, but this suggestion does not allow YCT to generate any new competences or improve its competitive position.

Increasing efficiency – Rather than simply looking to reduce costs, the MD should be looking to increase the company's efficiency. In this respect, it may be possible to reduce headcount if some of the jobs which are done manually (for example, design) are automated (for example, using CAD/CAM). However, this kind of change is no longer simply a cost reduction but is a more comprehensive review of the processes within the organisation.

It may also involve increased expenditure in the short term; for example, purchasing any new hardware or software required, training (or recruiting) staff to use it and, if necessary, making some existing staff redundant.

Shareholder value – When making a decision about future strategic plans, the MD needs to consider how any suggestions will improve YCT's ability to increase the value it delivers to its **shareholders**. Again, it is not clear how simply cutting costs will improve YCT's ability to generate value for its shareholders.

Revenue enhancement – The criticisms YCT has suffered recently suggest that its revenues may be falling as customers look to rival producers to supply their yachts. However, the suggestion to develop a new range of yachts would appear to be a potential way for YCT to increase its sales again.

It is not clear whether the new range of yachts will be aimed at the same exclusive range of customers as the existing yachts, or whether the new range will be cheaper. It is possible that, in effect, the suggestion is either a market development or product development strategy.

Risk – Such a strategy could allow YCT to grow, but there are also a number of uncertainties and risks attached to it. For example, how will selling to a new market affect the YCT 'brand', and how much demand is there for the new type of yachts YCT is proposing to build?

Resource requirements – In addition, YCT needs to consider whether it has sufficient resources to be able to develop and market the new yachts. On the one hand, does it have sufficient staff to build new yachts alongside its existing orders? On the other hand, and perhaps more importantly, does it have sufficient funding to be able to develop the new designs and then market its new range of yachts?

The scenario does not indicate if YCT has any loans it can draw down, but we know that it is already close to reaching its agreed overdraft limit. This suggests cash flow may be tight.

However, if YCT is going to develop the new design and then launch a marketing campaign, it will need to arrange sufficient funding to support this, before the increased revenues from selling the new yachts follow later.

4 KLP

4.1

Responsibility accounting is accounting in a way that makes managers responsible and accountable for performance that they are in a position to control. In the case of investment centres, a responsibility accounting system should make divisional managers responsible and accountable for sales revenues, costs, profit and ROI, for aspects of performance within their area of control.

Controllable and non-controllable costs

For the new performance reporting system at KLP, divisional managers should be made accountable for the costs within their control, but they should not be made accountable for apportioned head office overhead costs.

An appropriate reporting system may therefore distinguish between controllable and non- controllable (apportioned) fixed costs, as follows:

	£
Divisional performance	
Sales	X
Variable costs	(X)
Contribution	X
Directly attributable divisional fixed costs	(X)
Controllable profit	X
Apportioned general overheads	(X)
Net profit	X

The profit performance of divisional managers should be based on the controllable profit.

Manufacturing costs last year were 53% of sales revenue, but sales and distribution costs (17% of sales revenue) were also quite high. The responsibility accounting system should ensure that sales and distribution costs, for which each division is directly responsible, are included within the variable costs or directly attributable fixed costs of each division.

In the same way, the assets that are accounted for as divisional assets should be assets over which the divisional managers have some control. This may be difficult in practice, especially when a division occupies a building that is shared with staff from other divisions or head office staff.

Learning curve

The design of a responsibility accounting system should also recognise the implications of the learning curve in one division, and its potential impact on transfer pricing arrangements.

The existence of a learning curve in one division means that expected average production times will get shorter as new products are produced in (cumulatively) larger quantities. The division should therefore benefit from improving efficiency, but these improvements will come 'naturally' and should not be attributed to effective management. The reporting system should therefore be capable of including the expected learning curve effect when setting performance targets for the division, and comparing actual costs and production times with expectation. The divisional manager should not be credited with the efficiency improvements that come from the learning curve.

Transfer prices

When investment centres transfer goods or services between each other, the transfers add to the revenue and profits of the transferring division, and add to the costs of the receiving division. This creates potential for disagreements about what the transfer prices should be.

Since there is no external market for most transferred items, transfer prices for these items at cost plus would seem to be appropriate. However, the transfer prices should be fixed periodically at a negotiated price based on expected cost plus a profit margin. Actual cost plus should not be used for transfer pricing, because inefficiencies and overspending in the transferring division would be passed on and charged to the receiving division in the transfer price. This would be inconsistent with the principle of responsibility accounting.

4.2 It should be assumed that if divisional managers are rewarded on the basis of the performance of their division, they will be motivated to optimise the performance by which they are rewarded. They will be much less concerned about aspects of performance that do not affect their reward.

Short- vs long-term performance

The board currently believes that divisional managers should be rewarded on the basis of financial performance only – profitability and ROI. It is likely that rewards would also be based on annual rather than longer-term financial performance. This would be inappropriate, because long-term performance is an important consideration, and non-financial aspects of performance as well as short-term financial measures will affect longer-term performance.

The new performance reporting system should be designed in a way that motivates divisional managers to recognise the longer-term aspects of performance.

Financial and non-financial performance

An appropriate performance reporting system may therefore be one based on a balanced scorecard of performance targets, with annual bonuses based on the achievement of non- financial as well as financial targets. A balanced scorecard would include performance measures from customer, internal efficiency, innovation and learning perspectives.

Goal congruence – Performance measures could still include short-term performance measures. For investment centres, an important aspect of performance is financial ROI. The performance measurement system should encourage managers to make capital investment decisions that are in the best interests of the company. Ignoring issues such as risk, investment decisions should be taken if they will be expected to achieve a positive net present value.

However, if divisional performance is based on accounting ROI, there will be a possibility that divisional managers will choose not to make new investments because, in the early years of the investment, the effect will be to reduce the division's ROI. The performance reporting system should therefore be designed in a way that encourages desirable capital investment. The use of residual income, or even economic value added (EVA™), should therefore be considered as alternatives to ROI as measures of short-term financial performance.

Chapter 5

Strategic marketing and brand management

Introduction

Learning outcomes
Knowledge brought forward, examination context and syllabus links
Chapter study guidance

Learning topics

1 Marketing and marketing strategy
2 Developing a marketing strategy
3 Positioning strategies
4 The marketing mix
5 Databases and digital marketing
6 Brand management
7 Branding and marketing strategy
8 Valuing brands and intangible assets

Summary
Further question practice
Technical reference
Self-test questions
Answers to Interactive questions
Answers to Self-test questions

Introduction

Learning outcomes

- Assess and evaluate strategic marketing issues and demonstrate the application of quantitative and qualitative marketing techniques in complex scenarios
- Evaluate and analyse markets and the marketing environment and develop a marketing strategy consistent with the overall business strategy
- Explain, using information provided, how to position particular products and services in the marketplace (domestic or international) to maximise competitive advantage, and assess the corporate reporting impact arising from revenue and profit recognition
- Demonstrate, across a range of industries, how elements of the marketing mix can be used to promote competitive advantage
- Develop and explain marketing strategies using databases, big data and information technology applications such as social media and other internet sources
- Develop and explain the strategies for managing and sustaining existing brands
- Develop marketing strategies and show how they can be used to develop brands
- Demonstrate how appraisal techniques can be used for valuing brands, patents, R&D projects and intellectual property and evaluate relevant corporate reporting recognition and measurement implications for intangible assets

Knowledge brought forward, examination context and syllabus links

You should already be familiar with the key concepts and objectives of marketing from your studies of Business Strategy & Technology at Professional Level. At Advanced Level you will not only need to understand the concepts, but also how organisations can use marketing to help to develop and maintain their competitive advantage.

Marketing is likely to play a key part in a company's strategy, particularly the implementation of it, and consequently marketing can play a key role in helping a company achieve its mission and maximise long-term owner value. The two key 'orientations' of marketing (products and customers) are vitally important as the sources of revenue for an organisation, suggesting that effective marketing could have a significant impact on financial and strategic success. In this respect, we should also remember that 'marketing and sales' are one of the primary activities in Porter's value chain; so an organisation's competence in marketing and sales could contribute directly to its competitive advantage.

However, the marketing concept also reminds us that companies achieve their profit and other objectives by satisfying their customers. To achieve success, companies must satisfy their customers better, and respond to market opportunities more effectively, than their rivals. As such, we can identify clear parallels between marketing strategy and corporate strategy: the purpose of both is to generate a competitive advantage for a company over its rivals. As such, an organisation's resources and competences (as discussed in Strategic analysis of this Workbook) could play a crucial role in determining how it serves its customers and their needs.

Equally, however, an organisation needs to ensure that its marketing mix (including 'price') is aligned to its generic strategy (see Strategic choice).

Customer-related aspects of marketing (such as customer relationship management) also highlight the increasing importance of information for companies – in this case, developing information about their customers. We look at the importance of information and information systems in more detail in Information strategy of this Workbook.

Note that the learning outcomes refer to applying quantitative and qualitative marketing techniques to scenarios. Traditionally, much of the marketing information organisations have used to develop their marketing strategies has been quantitative – for example, relating to price and demand; market size or market share; and the impact that different marketing and promotional campaigns could have

on product demand. However, qualitative information is also important: for example, understanding why consumers prefer one product to another. Here again, the growth of big data and analytics could be important – for example, analysing customer sentiment on social media could provide organisations with valuable insights into customer preferences, and the characteristics that influence the attractiveness of different products or brands.

As well as looking at marketing as a strategic process, we consider the importance of brands and branding in this chapter. Brands can play an important part in a company's own strategy (eg, to help differentiate from competitors' products) but brand issues could also be relevant when considering acquisitions or mergers. For example, what message might be given to customers if a company with high-end brands (signifying quality and customer service) is merged with a company whose brands are seen to represent a low-cost, low-price position in the market?

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your studyof this chapter.

Topic	Practical signifi-cance	Study approach	Exam ap-proach	Interactive questions
1	**Marketing and marketing strategy** The two key orientations of marketing (products and consumers) are also the sources of revenue for an entity. As such, effective marketing can have a significant impact on strategic and financial success.	**Approach** Although market-ing is an important function in its own right, section 1 of this chapter high-lights the close links between marketing strategy and corpo-rate strategy. **Stop and think** To what extent does the marketing department deter-mine a product or service's position in the marketplace, and to what extent is that position determined by the full range of operations in an organisation (eg, production, supply chain, IT, finance, HRM)?	SBM&L is a scenario- based exam. You may therefore be asked to assess the strategic marketing issues highlighted in a case study scenario or to apply marketing techniques to the scenario.	**IQ1: Competitor analysis** Although this question is not exam standard it is useful to practise generating ideas. You are asked to discuss the advantages the company will obtain from conducting competitor analysis.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Developing a marketing strategy** To be successful, entities must satisfy their customers better than their rivals do, and must respond to market opportunities more effectively than their rivals. The aim of marketing strategy, like business strategy, is to generate competitive advantage for an entity over its rivals.	**Approach** Sections 2 highlights the parallels between developing marketing strategies and choosing a corporate strategy. The concepts of segmentation and targeting are particularly important in a marketing context. You should already be familiar with these concepts from your Business Strategy and Technology studies, although you should expect to have to apply them to more complex scenarios in SBM&L. **Stop and think** Consider a commonly used household product with which you are familiar, for example toothpaste or washing powder. What are the bases of segmentation used to market the product?	In the exam you may need to analyse an entity's markets and marketing environment, and develop a marketing strategy which is consistent with its overall business strategy.	**IQ2: Market segmentation** Using the scenario, you are required to discuss potential bases for segmenting the market and the benefits of such segmentation.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Positioning strategies** The aim of a marketing strategy is to boost revenue therefore it is important to position products correctly to improve their performance or increase market share.	**Approach** The concept of positioning is particularly important in a marketing context and you should already be familiar with it from your Business Strategy and Technology studies. Issues around pricing, revenue and revenue recognition were not covered in Business Strategy and Technology so make sure you read these sections carefully. Moreover, these sections highlight the importance of the impact of different strategic or tactical decisions from a financial reporting perspective. **Stop and think** What are the issues to consider in repositioning a product or service?	As part of a growth strategy you may need to explain how to position products or services in the market- place, to maximise competitive advantage levels.	**IQ3: Revenue recognition** Corporate reporting represents 15-20% of the syllabus. In this question you are asked to calculate the revenue to be recognised in two different circumstances. **IQ4: Building contract** This is another revenue recognition question asking you to calculate how much revenue should be recognised.

CHAPTER 5

Topic	Practical significance	Study approach	Exam approach	Interactive questions
4	**The marketing mix** The elements of the marketing mix are the key decision areas which marketers have to manage to ensure that their product or service satisfies customers' needs better than competitor offerings do.	**Approach** The marketing mix is another key marketing model, which you should be familiar with from Business Strategy and Technology. Note in particular the issues related to service marketing, marketing in international environments and the considerable impact that the internet has had on the marketing mix. **Stop and think** How does marketing a service differ to marketing a product?	In the exam you may be expected to demonstrate how elements of the marketing mix can be used to promote competitive advantage.	
5	**Databases and digital marketing** The availability of information and knowledge about customers can help organisations to manage their marketing campaigns more effectively. The way firms manage their data is becoming increasingly important in the context of building a long-term relationship with customers (relationship marketing).	**Approach** Section 5 builds on assumed knowledge and examines how databases, digital marketing, Web 2.0 technologies and social media can play a key role in relationship marketing and customer relationship management. Big data (and big data analytics) could also be an important source of information about customers and customer behaviour, which an organisation could make use of in its marketing activities. **Stop and think** How have the internet and social media affected companies' marketing strategies?	Digital marketing is becoming increasingly common and this is likely to be reflected in exam questions. You may be asked to explain the importance of information technology applications (including databases, big data, social media and other internet sources) for marketing strategies.	**IQ5: Analytics and marketing information** In the SBM&L exam you may be asked to interpret dashboard style data, as seen in IQ5. You need to explain how the data can support marketing activities and whether you require any further information. **IQ6: Customer profitability** Using the data presented in the scenario you are asked to calculate the net customer account profitability. Ensure you work quickly and manage your time carefully when dealing with calculations in the exam.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
6	**Brand management** In an increasingly competitive marketplace, brands play an important part in an entity's strategy – for example, by helping to differentiate a product from its competitors. However, brand issues could also be relevant when considering an acquisition – both in terms of the value of any brands being acquired, and also how well those brands fit with a company's existing brands.	**Approach** Section 6 focuses on the role of a brand in adding value to companies, via higher prices and higher profits. Make sure you understand the strategic importance of brands and how entities can develop their brands. **Stop and think** What are the benefits of having a strong brand?	An exam question may ask you to explain the benefits that a strong brand can bring or to assess the strength of a company's brand before recommending suitable brand and marketing strategies.	**IQ7: Brand marketing** In this question you are asked to assess the level of brand investment required in the scenario business.
7	**Branding and marketing strategy** Having a strong brand enables an organisation to develop that brand via marketing activity. Developing a brand involves a continuous search for ways to increase the brand's full potential.	**Approach** In Section 7 make sure you understand how a company can use branding strategies to develop and expand their brands. This section examines physical product branding strategies as well as strategies for online, digital products. **Stop and think** How have social media companies developed their online brand?	In the exam you may be required to recommend strategies for managing and sustaining brands and show how marketing strategies can be used to develop brands.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
8	**Valuing brands and intangible assets** Brand value is a measure of strength of a brand in the marketplace and can add tangible value to a company through the resulting sales and profits.	**Approach** This section looks at how to value an intangible asset such as a brand. It is important to understand the financial reporting implications of valuing brands. For example, if an entity has decided to make an acquisition, what brands or intangible assets might be acquired as part of the deal, how should they be valued, and how should they be reported in the financial statements of the company acquiring them? **Stop and think** How can a strong brand increase the share price of a company?	In the exam, you could be asked to demonstrate how brands and other intangible assets can be valued, and evaluate the way they are measured and reported in an entity's financial statements. You may also be asked to conduct commercial due diligence relating to the acquisition of brands and intangible assets.	**IQ8: Acquisition** IQ8 is a corporate reporting style question, examining the key financial reporting issues affecting a business after an acquisition. Ensure you are comfortable with the financial reporting treatment of brands and the different methods of valuing them.

Once you have worked through this guidance you are ready to attempt the further question practice included at the end of this chapter.

1 Marketing and marketing strategy

Section overview

- This section reviews the concept of 'strategic marketing' and the role it plays in supporting the overall business strategy.
- Strategic marketing helps an organisation to identify which products to provide and what markets it wishes to operate in.
- A marketing audit can be particularly useful in helping an organisation understand its current position and develop appropriate options to strengthen its competitive position.

1.1 The nature of marketing

'Strategic management' and 'strategic marketing' share a number of ideas and models, although it is important to remember that 'marketing' contributes to strategic management and so an organisation's marketing strategies need to be properly aligned to its overall business strategy.

1.1.1 What is marketing?

Definition

Marketing: The management process responsible for identifying, anticipating and satisfying customer requirements profitably. (Chartered Institute of Marketing)

While this definition is useful, it is not the only one we could consider. In fact there are many. The marketing guru, Philip Kotler, offers the following definition of the **marketing concept**:

"The marketing concept holds that the key to achieving organisational goals lies in determining the needs and wants of target markets, and delivering the desired satisfactions, more efficiently and effectively than the competition."

Kotler's statement is very important because it identifies four key concepts in marketing:

(a) identifying target markets
(b) determining the needs and wants of those markets
(c) delivering a product offering which meets the needs and wants of those markets
(d) meeting the needs of the market profitably – more efficiently and effectively than the competition

Jobber (in his text *Principles and Practice of Marketing*) reinforces these points by highlighting that marketing-orientated companies strive for competitive advantage by serving customers better than the competition.

In this context, Jobber highlights the difference between organisations that are marketing orientated or market driven and those that are internally orientated or production orientated (ie, organisations which focus on production and cost efficiency rather than customer satisfaction).

Market-orientated organisations	Internally orientated organisations
Organisation's activities are focused on providing customer satisfaction	Convenience in production is considered to be most important
Understand the criteria which customers use to make purchasing decisions and match these with the marketing mix	Assume that price and product performance are key to most sales
Segment the market according to customer differences, and tailor marketing strategies accordingly	Segment the market by product
Try to understand competitors' objectives and strategies, in order to try to anticipate competitive actions	Ignore competition
Treat marketing expenditure as an investment which yields future benefits	Treat marketing expenditure as a luxury which rarely (if ever) produces benefits
Seek latent needs for products or services, or previously untapped markets	Stick with existing products and markets
Seek to respond quickly to product and market opportunities	Ask 'Why rush?' and end up missing windows of opportunity

Table based on Jobber, D. (2010) *Principles and Practice of Marketing*, 6th editionIt is important to recognise that successfully implementing the marketing concept requires the whole organisation to be responsible for meeting customer needs. A focus on 'satisfying customer needs' has to underpin everything that the organisation does; it is not solely the responsibility of the marketing department.

1.1.2 Marketing strategy

Definition

Marketing strategy: A marketing strategy specifies which markets an organisation intends to compete in, what customer needs it will meet, and how it intends to meet them.

A marketing strategy can be broken down into six elements:

- Who the organisation will serve – **the customers and market segments the organisation will serve**
- What needs the **organisation's products or services will meet**
- When it will serve those **customers and their needs** – ie, what occasions the organisation will target
- Where the organisation will do business – what **geographical markets** will it cover?
- How the organisation will serve its target customers and their needs – **what resources and competences does the organisation have to serve** those customers and their needs better than its competitors can?
- Why the organisation will do these things – in most cases, **to ensure that revenues exceed costs by an acceptable rate of return** on the capital employed

In turn, strategic marketing involves making crucial decisions about which customers and what customer needs an organisation will serve, and what means the organisation will employ to serve those needs. Strategic marketing is the creation and maintenance of a market-orientated strategy, focusing the organisation on the customers it serves and the needs it meets.

1.2 Strategic marketing and strategic management

It is important to consider the relationship between strategic marketing and strategic management. The two are closely linked, since there can be no corporate plan which does not involve products/services and customers.

Corporate strategic plans guide the overall development of an organisation. Marketing planning is subordinate to corporate planning but makes a significant contribution to it and is concerned with many of the same issues. The marketing department can also be a most important source of information for the development of corporate strategy. The corporate audit of product/market strengths and weaknesses (SWOT analysis), and much of its external environmental analysis, is likely to be directly informed by the **marketing audit**.

Specific marketing strategies will be determined within the overall corporate strategy. To be effective, these plans will be interdependent with those for other functions of the organisation.

(a) The strategic component of marketing planning focuses on the direction which an organisation will take in relation to a specific market, or set of markets, in order to achieve a specified set of objectives.

(b) Marketing planning also requires an operational component that defines tasks and activities to be undertaken in order to achieve the desired strategy. The marketing plan is concerned uniquely with products and markets.

Marketing management aims to ensure a company is pursuing effective policies to promote its products, markets and distribution channels. This involves exercising strategic control of marketing. A key mechanism for applying strategic control is known as the marketing audit, although the results of the marketing audit can also be used to provide much information and analysis for the overall corporate planning process.

1.3 Marketing audit

Definition

Marketing audit: 'A systematic examination of a business's marketing environment, objectives, strategies, and activities, with a view to identifying key strategic issues, problem areas and opportunities.'

(Jobber, D. (2010) *Principles and Practice of Marketing*)

A marketing audit is a key element of marketing planning, and it can provide the basis for future strategies to help improve marketing performance. It also helps answer three key questions in relation to a firm's marketing strategy:

- Where are we now?
- How did we get here?
- Where are we heading?

The answers to these questions depend on an analysis of the **internal** and **external** environment of a business, invoking business strategy models such as PESTEL and SWOT analysis (which we considered in Strategic analysis of this Workbook).

In effect, therefore, a marketing audit is the marketing equivalent of the corporate **strategic analysis** which is carried out in the analysis stage of the rational model.

The **internal marketing audit** focuses on those areas which are under the control of marketing management, whereas the **external marketing audit** looks at those forces over which marketing has no control (eg, GDP growth).

The results of the marketing audit are a key determinant of the future direction of a business and may even give rise to a redefined mission statement for the business as a whole.

Jobber identifies five aspects of a marketing audit:

(a) Market analysis. This looks at:

- **Market size**: Market growth and trends
- **Customer analysis** and buyer behaviour
- **Competitor analysis**: Competitors' objectives and strategies; market shares and profitability; competitors' strengths and weaknesses; barriers to entry
- Analysis of different **distribution channels** (eg, in-house vs outsourced; online vs offline) and their relative strengths and weaknesses
- **Supplier analysis**: Trends in the supply chain; power of suppliers; strengths and weaknesses of key suppliers

(b) Strategic issues analysis: This involves considering the suitability of an organisation's marketing objectives in relation to the marketplace and any changes in the market. Points to consider are likely to include: market segmentation; basis of competitive advantage; core competences; positioning; and product portfolio.

(c) Review of marketing mix effectiveness– looking at product, price, promotion and distribution.

(d) Marketing structure, including marketing organisation (does the organisation of the marketing department fit with the strategy and the market?); marketing training; and intra- and interdepartmental communication (for example, how well does the marketing department communicate with production departments?).

(e) Marketing systems. Three different types of system are considered:

- **Marketing information systems**: What information about current performance is provided? Is it sufficient?
- **Marketing planning systems**: Where are we heading, and how do we get there?
- **Marketing control systems**: Can the systems provide an evaluation of marketing campaigns (accurately and on a timely basis)? Do the systems evaluate the key variables affecting company performance?

We can expand on some elements of the market analysis section of the marketing audit:

Market size: Refers to both actual and potential (forecast) size. A company cannot know whether its market share objectives are feasible unless it knows the market's overall size and the position of competitors. Forecasting areas of growth and decline is also important (eg, what stage is a product at in its life cycle?; how durable is the market?).

Customers: The analysis needs to identify who a company's (or a brand's) customers are, what they need, and characteristics of their buying behaviour (where, when and how they purchase products or services. For example, are there significant geographical variations in customer requirements or product usage?). This kind of customer analysis could help to point out opportunities for a company

– for example, to expand further into areas where product usage is currently low.

Companies need to monitor changing customer tastes, lifestyles, behaviours, needs and expectations so that they can continue to meet existing customer needs effectively, as well as seeking out new customer needs which have not yet been met.

Distribution channels: The company will need to evaluate its current arrangements for delivering goods or services to the customer.

Changes in distribution channels can open up new fields of opportunity (most notably in the growth of e-commerce facilitated by the internet).

1.3.1 Links between marketing and business strategy **frameworks**

Although we are looking at 'marketing' in this section of the Workbook, there is still a clear link back to the business strategy ideas we discussed in Strategic analysis and Strategic choice.

For example, the market analysis section of a marketing audit will identify factors that will affect the nature of **competition** in an industry and will therefore affect the profitability of the industry. (Note the parallel here to the ideas of Porter's five forces model.)

Similarly, the strategic issues analysis in the marketing audit relates to the **competitive strategies** which firms might select in order to try to meet their objectives. For example, do they try to differentiate themselves from their competitors on the basis of quality or service, or do they try to produce their products or services at a lower cost than any of their competitors can manage? (In other words, how are they applying the ideas of Porter's generic strategies model?)

Marketing also has an explicit role in an organisation's **value chain**. The end result of a value chain is a product or service which both has a price in line with customers' perceptions of value and also a cost that allows the producer to make a profit margin.

Equally importantly, though, the organisation's marketing mix needs to fit with its general strategy and the underlying approach to its value chain (for example, minimising costs, or maximising quality and customer service).

Corporate strategy and marketing strategy

The table below illustrates the similarities (in terms of sequence) between the process of developing, and implementing, a marketing strategy and that of developing a corporate strategy:

	Corporate strategy	**Marketing strategy**
Set objectives	For the organisation as a whole: eg, increase profits by X%.	For products and markets: eg, increase market share by X%; increase turnover.
Internal appraisal (**strengths and weaknesses**)	Review the effectiveness of the different aspects of the organisation.	Conduct a marketing audit; a review of marketing activities. Does the firm have a marketing orientation?
External appraisal (**opportunities and threats**)	Review political, economic, social/cultural, technological, environmental and legal factors (PESTEL) impacting on the whole organisation.	Review environmental factors as they affect customers, products and markets.
Gap analysis	There may be a gap between desired objectives and forecast objectives. How can the gap be closed?	The company may be doing less well in particular markets than it ought to. Marketing will be focused on growth.

	Corporate strategy	Marketing strategy
Strategy	Develop strategies to fill the gap: eg, diversifying, entering new markets, developing new products.	A marketing strategy is a plan to achieve the organisation's objectives by specifying: • resources to be allocated to marketing • how those resources should be used In the context of applying the marketing concept, a marketing strategy would: • identify target markets and customer needs in those markets • plan products which will satisfy the needs of those markets • organise marketing resources, so as to match products or services with customers
Implementation	Implementation is delegated to departments of the business.	The plans must be put into action, eg, advertising space must be bought.
Control	Results are reviewed and the planning process starts again.	Has the firm achieved its market share objectives?

1.4 Competitor analysis

The marketing concept highlights that, in order to be successful, an organisation must provide greater customer value and satisfaction than its competitors do. It is not sufficient for marketers simply to adapt their products or services to the needs of target customers; in order to gain strategic advantage, they also have to position their offering more strongly in the minds of consumers than their competitors do.

However, in order to do this, marketers need to analyse their competitors. Competitor analysis helps an organisation understand its competitive advantages/disadvantages compared to its competitors. It can also provide valuable insights into competitors' strategies, which in turn could help an organisation develop its own strategies to achieve (or sustain) an advantage over its competitors.

An analysis of individual competitors will cover: who they are, their objectives, their strategies, their strengths and weaknesses, and how they are likely to respond to an organisation's strategies.

1.4.1 Key questions for competitor analysis

One of the first questions an organisation needs to ask itself is: **Who are the competitors?** Once it has established this, an organisation then needs to identify the following:

- **What are the competitors' goals or strategic** objectives? (eg, maintaining profitability, building market share, or entering new markets? Are the competitors looking to build, hold or harvest products or business units?)
- **What assumptions do the competitors hold about themselves** and the industry? (eg, trends in the market, products and consumers)
- **What strategies are the competitors currently pursuing**? (For example, are they looking to compete on the basis of low cost or product quality? Are they attempting to service the

whole market, or a specific niche?)
- What are the competitors' strengths and weaknesses? What key resources and capabilities do the competitors have (or not have)?

Understanding competitors' strengths and **weaknesses**

Developing a good understanding of competitors' strengths and weaknesses, and what resources and capabilities they have (or do not have), can help locate areas of competitor vulnerability. In this way, an organisation might be able to achieve strategic success if it matches an area of its strength against an area in which a competitor is weak.

Information which could be gathered about competitors' strengths and weaknesses includes:

- **financial performance**, including profitability, and profit margins
- **funding and availability of funds for future investment**
- **relative cost structure**
- **brand strengths, customer loyalty**
- **market share**
- **quality of management team**
- **distribution networks**
- **product and service quality**
- **distinctive competences** (eg, customer awareness, customer service)

Interactive question 1: Competitor analysis

CCC is a manufacturer of specialist portable communications equipment, which is designed for use in hazardous and dangerous conditions. Developments of new technology in recent years, such as wireless mobile telephony, infra-red thermal imaging and global positioning, have allowed CCC to create new products.

The market for such equipment has grown significantly over the past five years. The customer base includes fire services, oil and chemical companies and the Government. CCC now recognises that, during this period of rapid growth, the market has attracted a number of new entrants and may even be reaching a level of overcapacity.

The directors feel that they do not know as much as they should about the existing, and new, companies in the industry. The market is now maturing and, although CCC is managing to maintain its margins and leading market share (45%), it is likely that the characteristics of the industry will change.

Requirement

Discuss the advantages for CCC of carrying out competitor analysis.

See **Answer** at the end of this chapter.

1.4.2 Competitor response profiles

Once an organisation has analysed its competitors' future goals, assumptions, current strategies and capabilities, it can begin to ask the crucial questions about how a competitor is likely to respond to any competitive strategy the organisation itself might pursue. Trying to assess what competitors' responses are likely to be is a major consideration in making any strategic or tactical decision.

Therefore an organisation needs to ask itself:

- How is the competitor likely to respond to any strategic initiatives that the organisation introduces?
- Will the competitor's response be the same across all products/markets, or might it react more aggressively in some markets than others?

An organisation can build up a **competitor response profile** to help answer these questions. Key questions in the **competitor response profile** include:

- Is the competitor satisfied with its current position?
- What strategy shifts or moves is the competitor likely to make?
- Where is the competitor vulnerable?
- What will provoke the greatest and most effective retaliation by the competitor?

By analysing these issues, an organisation can then consider what its most effective strategy is likely to be, in the context of the competitors' likely response to that strategy.

1.4.3 Identifying competitors

One of the dangers marketers face when identifying competitors is that they adopt too narrow a definition of who their competitors are.

For example, an organisation might only consider other organisations offering technically similar products and services as its competitors. However, this ignores companies that produce substitute products which could perform a similar function, or those which solve a problem in a different way.

In addition, as well as considering existing competitors, organisations need to continue to scan the environment for potential new entrants into the industry, either as direct or indirect competitors.

Again, it is important to be aware that there could be different forms of competitor here: new entrants with products which are technically similar to existing ones; or those entering the market with new substitute products. For example, Apple's skill in computer electronics enabled it to enter the portable music player market with its iPod brand, even though Apple had no previous experience in producing hi-fi systems or audio equipment.

Links to business strategy **models**

In the chapter Strategic analysis of this Workbook, we looked at the way organisations analyse the external environment and also consider their own internal resources and capabilities as part of the strategic planning process. This highlights that competitor analysis is not only an important part of developing an organisation's marketing strategy, but is also, more generally, an important part of developing an organisation's overall corporate strategy.

The different ways in which companies seek to achieve competitive advantage are also relevant in both a marketing context and an overall business strategy context:

(a) The positioning approach

The positioning approach to strategy is closely related to the traditional concept of **marketing orientation**. It starts with an assessment of the commercial environment and positions the business so that it fits with environmental requirements (in particular, customer requirements).

(b) The resource-based approach

The resource-based approach starts with the idea that competitive advantage comes from the possession of distinctive and unique resources within the organisation itself. This approach could be likened to **production-orientated companies**, which focus on production and cost efficiency rather than customer satisfaction.

2 Developing a marketing strategy

Section overview

- Very few products or services can satisfy all customers across an entire market. Therefore, in order to satisfy customer needs successfully, different product or service offerings need to be made to different customer groups within the market.
- Market segments are groups of customers with similar needs which can be targeted with a distinctly positioned marketing mix.
- To be successful, a marketing strategy needs to be aligned to, and consistent with, an organisation's overall business strategy.

2.1 The value proposition

In section 1 of this chapter, we suggested that marketers can contribute to strategic analysis by helping an organisation understand its customers, competitors, markets and environmental forces and trends.

However, marketers also play an important strategic role in helping organisations develop the value proposition they offer their customers: what is the value or benefit that the organisation (or its products, services or brands) will offer customers, now and in the future?

A firm's value proposition dictates how the firm will serve its customers – how it will differentiate itself from its competitors and position itself in the marketplace. Accordingly, a firm's value proposition is the set of benefits or values it promises to deliver to consumers to satisfy their needs. It helps customers answer the question of why they should buy one particular firm's brand rather than a competitor's.

For example, Red Bull Energy Drink's value proposition is that it helps consumers fight mental and physical fatigue. Red Bull captured a significant share of the energy drinks market by promising that it "gives you wings!".

2.1.1 What is the value proposition?

A customer can evaluate a company's value proposition on two levels:

(a) **Relative performance**: What the customer gets, relative to what he or she would get from a competitor

(b) **Price**: Payments made to acquire the product or service

The company's marketing and sales efforts offer the value proposition, and its delivery and customer service processes then fulfil it for the customer.

The value proposition is crucial in identifying what **differentiates a firm's product from its competitors**. It is one of the key factors to consider when determining a marketing strategy. Marketing strategists can check how their value proposition works in the perception of customers, using market research, for example. In this respect, a value proposition could also encourage a firm to target particular market segments.

Equally importantly, however, a firm needs to possess the necessary resources and competences to be able to deliver its value proposition successfully.

Context example: Benetton and Zara

The example of the fashion brand Benetton highlights the importance of understanding customer needs and making marketing choices to match those needs.

For a number of years, Benetton enjoyed great success with a unique brand of clothing supported by provocative advertising. However, Benetton had to rethink its marketing strategy when new fast- fashion competitors such as Zara and H&M entered the fashion market for teenagers and young adults, and began to capture market share and brand loyalty as a result of their comprehensive marketing strategies.

Zara understood the patterns of consumer behaviour among its target age groups, and recognised that these consumers wanted new styles quickly and cheaply; in effect, they wanted 'disposable clothing'.

Zara studied the elements of the marketing mix and saw that management of its global supply network, its service processes and physical evidence such as store layout and design were more important than traditional marketing expenditure on advertising. Consequently, Zara spent very little on advertising, whereas Benetton was spending millions of euros on creative advertising.

Zara prospered as a result of its focus on rapid delivery of new lines to the market, while Benetton floundered, despite extensive advertising.

However, following Zara's success, Benetton saw the error of its ways and began to modernise its global supply chain. Therefore, instead of only being able to deliver new styles to its stores once a month (which was its traditional delivery strategy) it was then able to deliver them once a week.

Benetton had realised that Zara and H&M both had very lean supply chains, capable of replenishing stocks in days, rather than months. This excellence in supply chain management was as important as style in the increasingly cut-throat business of mass market apparel.

2.1.2 The value proposition and competitive advantage

A firm's value proposition also has an important influence over the firm's position strategy. In turn, this strategy also needs to be defined in terms of competitive scope and Porter's generic strategies of differentiation or cost leadership.

However, while Porter's argument remains valid – that the key to superior performance is developing a sustainable competitive advantage – it is important to appreciate that a lot of the benefit from delivering the value proposition is derived from **perception**. Business reputation for delivering on quality or price (or whatever the value proposition is) is strategically extremely important, as it can give a company valuable breathing space in the event of faltering actual performance, and is hard for competitors to break into. For example, Toyota cars have maintained a favourable reputation for reliability, despite a number of models being subject to recalls in recent years.

Conversely, a solid value proposition may not hold up in the wake of changing perceptions or tastes.

2.2 Sources of competitive advantage

Porter's generic strategies model (which we discussed in Strategic choice) highlights the importance of companies creating – and sustaining – some form of competitive advantage in order for them to be successful.

In broad terms, Porter's model argues this competitive advantage is achieved through either cost leadership or differentiation. However, in practice there are a number of ways businesses can seek to establish a competitive advantage. For example:

The quality player with the defined product	eg, Swiss Army knives
The '**value**' option	eg, Lidl, Aldi
The innovator	eg, Apple
A narrow product focus	eg, Ferrari
A target segment focus	eg, Harrods
Being global	eg, HSBC

The importance of the value chain

In order to create a differentiated position or to become a cost leader, a firm needs to understand the resources and capabilities it has available to it, and how these resources and capabilities contribute to the firm's competitive advantage. **Value chain analysis** can be a useful tool for analysing the processes which help to achieve this, and for enabling the sources of costs or differentiation to be located and understood.

Also note the potential links back to ideas of supply chain management and operations management that we discussed in Strategic implementation. Operations management issues remind us that '**value**' is actually delivered at an operational level and, therefore, the operational level is critical for the successful implementation of strategic or tactical plans.

2.2.1 Aligning marketing strategy and business strategy

In order for a company's marketing strategy to be successful, that marketing strategy needs to be consistent with the company's overall business strategy.

For example, if the company is pursuing a differentiation strategy, then its marketing strategy also needs to emphasise the way the company's products/services provide a premium value for its customers.

The elements of a company's marketing mix (Product, Price, Place, Promotion) were discussed in Business Strategy and Technology at Professional level, but it is important to recognise that a company's competitive advantage will be derived from these 4 Ps and the way they are combined. (We will look at the marketing mix itself in more detail later in this chapter.)

2.3 Product-market strategies

We have already considered Ansoff's matrix in Strategic choice in relation to strategic choice, but it is equally appropriate to consider it in relation to marketing strategies. Ansoff's matrix could be used in conjunction with market research activities aimed at evaluating new markets and new products, and it could also lead to the deployment of the marketing mix in exploiting product-market opportunities for growth.

(a) **Market penetration** involves increasing sales of the existing products in existing markets. This may include:

- persuading existing users to use a product or service more (a credit card issuer might try to increase credit card usage by offering higher credit limits or gifts based on

expenditure)
- persuading non users to use it (for example, by offering free gifts with new credit card accounts)
- attracting consumers from competitors (for example, as credit card companies do with interest- free balance transfer services and an introductory period of interest-free purchase)

Market penetration will, in general, only be viable in circumstances where the market is not already saturated. Market penetration is the lowest risk strategy of the four which Ansoff identified in his product-market matrix, but this may also mean the level of growth it affords may be lower than other strategies.

(b) Market development entails expansion into new markets, using existing products. New markets may be geographically new, or they may be new market segments (for example, selling to individual domestic consumers as well as to industrial consumers), new distribution channels (for example, selling organic vegetables in super markets as well as specialist food shops) or new uses for existing products.

This strategy requires swift, effective and imaginative promotion, but can be very profitable if markets are changing rapidly. Also, this strategy carries relatively low risk because little capital investment is involved.

(c) Product development involves the redesign or repositioning of existing products or the introduction of completely new ones in order to appeal to existing markets; for example, when television manufacturers introduced 'High Definition Ready' television sets.

(d) Diversification is much more risky than the other three strategies, because the organisation is moving into areas (products and markets) in which it has little or no experience. Instances of pure diversification are consequently rare and as a strategic option, it tends to be used in cases when there are no other possible routes for growth available.

2.3.1 Market analysis

Aaker and McLoughlin suggest some questions that companies could ask to help them analyse potential markets, and by so doing, help them decide which markets to enter:

- Submarkets – What submarkets are there within the market; defined by different price points, or niches for example?
- Size and growth – What are the size and growth characteristics of the market and submarkets within it? What are the driving forces behind trends in sales? What are the major trends in the market?
- Profitability – How profitable is the market and its submarkets now, and how profitable are they likely to be in the future? How intense is the competition between existing firms in the market? How severe are the threats from potential new entrants of substitute products? What is the bargaining power of suppliers and customers?
- Cost structure – What are the major cost components for various types of competitor, and how do they add value for customers?
- Distribution channels – What distribution channels are currently available? How are they changing?
- Key success factors – What are the key success factors, assets and competences needed to compete successfully? How are these likely to change in the future? Can the organisation neutralise competitors' assets and competences?

2.4 Segmentation, targeting and positioning as strategies

The range of products and services available to contemporary consumers, coupled with the variety of needs and expectations which those consumers have, mean that very few products or services can satisfy all the consumers in a market.

Marketing activity is therefore likely to be more effective if organisations direct different products or services to particular **market segments** (which can then be reached with a **distinct marketing mix**) rather than trying to sell to the total market as a whole.

Definition

Market segmentation: The division of the market into homogeneous groups of potential customers who may be treated similarly for marketing purposes.

2.4.1 Bases for market segmentation

Buyers can be grouped into segments according to a range of social, cultural and personal factors including: social class, age and life cycle stage, occupation, economic circumstances, lifestyle, personality, education, and beliefs and attitudes.

Simple segmentation could be on any of the bases below:

• geographical area	• nationality
• age	• social class
• gender	• personality
• lifecycle stage	• lifestyle
• level of income	• benefits sought
• occupation	• purchase occasion
• education	• purchase behaviour
• religion	• usage (eg, frequent vs occasional user)
• ethnicity	• perceptions and belief

Importantly, though, the same basis of segmentation will not necessarily be appropriate in every market, and sometimes, two or more bases might be valid at the same time. One segmentation variable might be 'superior' to another in a hierarchy of variables.

Lifestyle segmentation

Lifestyle segmentation – or psychographics– seeks to classify people according to their values, opinions, personality, characteristics and interests.

Importantly, lifestyle segmentation deals with the **person** as opposed to the **product or service** being sold, and attempts to discover the particular **lifestyle patterns of customers**, as reflected in their activities, interests and opinions. This offers a richer insight into customers' preferences for various products and services, and hence their propensity to buy them. For example, in marketing its television channels, Sky has used lifestyle segmentation to target groups with different interests: such as sports enthusiasts (Sky Sports), film fans (Sky Movies) and those people who want to keep up to date with news and current affairs (Sky News).

Database marketing, which is becoming much more important in identifying and targeting market segments for direct selling, relies heavily on the theories underlying psychographic segmentation.

However, a potential issue that arises with lifestyle segmentation is the extent to which general lifestyle patterns can predict purchasing behaviour in specific markets.

Moreover, while lifestyle analysis may be relevant to advanced Western economies, it could have little value for analysing markets in emerging economies where the majority of purchases are informed by basic physiological needs.

Jobber's definition of behavioural segmentation highlights the different bases which could be used.

Jobber's definition of behavioural segmentation highlights the different bases which could be used.

Definition

Behavioural segmentation: seeks to classify people and their purchases according to the benefits sought; the purchase occasion; purchase behaviour; usage; and perception, beliefs and values.

(Jobber, D. (2010) *Principles and Practice of Marketing*)

We will look at each of these bases for segmentation in turn:

Bases for behavioural segmentation

Basis for segmentation	Comments
Benefits sought	People may seek different benefits from a product. For example, the fruit drink market could be segmented in terms of the following benefits sought: extra energy, vitamins, natural ingredients or low calories. More generally, the benefits from purchases could be classified in terms of pleasure; image; or functionality.
Purchase occasion	Some products may be purchased as a response to an emergency, some may be purchased as gifts, while others may be purchased as routine purchases. Price sensitivity is likely to be greater for routine purchases (eg, groceries) than for emergencies (eg, replacing a broken window). Similarly, the way gifts are packaged and marketed is likely to be different to the way routine purchases are presented.

Basis for segmentation	Comments
Purchase behaviour	Purchase behaviour could relate to the time the purchase is made relative to the launch of a product, or to patterns of purchase. If a new product is launched, some people ('innovators') are likely to buy the product soon after launch, but other segments of the market will want more time to assess the benefits of buying the product before doing so. Purchase behaviour can also be segmented in terms of brand loyalty. Some buyers remain loyal to a single brand, while others may switch brand in response to special offers (eg, money-off campaigns, or 'buy one, get one free'), while others show no brand loyalty at all.
Usage	Customers can be distinguished according to whether they are heavy users, light users or non-users of a product. The implication of this for marketers is that usage profiles allow the heaviest users of a product group to receive the most marketing attention.
Perceptions, beliefs and values	Perceptions, beliefs and values are often strongly linked to behaviour. Consumers can be grouped by identifying those who view the products in a market in a similar way (perceptual segmentation) and those who hold similar beliefs (belief segmentation). Understanding segments in this way helps marketers understand how customers view the marketplace, and so can help identify opportunities to target specific groups. For example, L'Oréal beauty products (and their tagline 'Because you're worth it') are targeted at women who believe they are entitled to be pampered.

2.5 Evaluating market segments

A market segment will only be valid if it is worth designing and developing a unique marketing mix for that specific segment. The following questions are commonly asked to decide whether or not the segment can be used for developing marketing plans.

Criteria for assessing segment **validity**

Criteria	Comments
Can the segment be measured?	A market segment might be easy to define but hard to measure. For example, if 'people with a conservative outlook to life' is a segment, how would this be measured?
Is the segment big enough?	There has to be a large enough potential market to be profitable.
Can the segment be reached?	There has to be a way of getting to the potential customers via the organisation's promotion and distribution channels.

Criteria	Comments
Do segments respond differently?	If two or more segments respond in the same way to a marketing mix, the segments are effectively the same. There is no point in distinguishing them from each other.
Can the segment be reached profitably?	Do the identified customer needs cost less to satisfy than the revenue they earn?

Professional skills focus: Assimilating and using information

One of the professional skills tested in the CA exams is the ability to draw conclusions from data, facts, and your own judgement where required. When assessing a strategy, for example whether it is feasible to pursue market segmentation, you should carefully review the scenario information before applying your own judgement in order to draw a reasoned conclusion.

2.5.1 Segment attractiveness

A segment might be valid and potentially profitable, but this does not necessarily make it attractive to invest in. What factors affect the attractiveness of different market segments?

(a) A segment which has high barriers to entry might cost more to enter but will be less vulnerable to competitors.

(b) For firms involved in relationship marketing, the segment should be one in which a viable relationship between the firm and the customer can be established.

The most attractive segments are those whose needs can be met by building on the company's strengths (and where it has sufficient resources and capabilities to do so) and where forecasts for **demand**, **sales profitability** and **growth** are favourable.

2.5.2 Marketing strategies

Targeting is a continuing process, since segments change and develop, and so do competitors. A company is, to some extent, able to plan and control its own development and it must respond to changes in the marketplace.

The marketing management of a company may choose one of the following policy options.

Generic marketing strategies

Policy	Comment
Undifferentiated marketing	This policy is to produce a single product and hope to get as many customers as possible to buy it; segmentation is ignored entirely. This is sometimes called **mass marketing**.
Differentiated marketing	The company attempts to introduce several product versions, each aimed at a different market segment (for example, the manufacture of different styles of the same article of clothing).

Policy	Comment
Focused marketing	The company attempts to produce the ideal product for a single segment (niche) of the market. For example, Rolls Royce cars, Bang & Olufsen (which targets upmarket customers) and Saga (which targets the over-50s).

The choice between undifferentiated, differentiated or focused (concentrated) marketing as a marketing strategy will depend on the following factors:

(a) The extent to which the product and/or market may be considered homogeneous. Mass marketing may be sufficient if the market is largely homogeneous (for example, for safety matches).

(b) The company's resources must not be overextended by differentiated marketing. Small firms may succeed better by concentrating on only one segment.

(c) The product must be sufficiently advanced in its life cycle to have attracted a substantial total market; otherwise segmentation and target marketing is unlikely to be profitable, because each segment would be too small in size.

The major **disadvantage of differentiated marketing** is the additional costs of marketing and production (more product design and development costs, the loss of economies of scale in production and storage, additional promotion costs and administrative costs and so on). When the costs of differentiation of the market exceed the **benefits** from further segmentation and target marketing, a firm is said to have **over-differentiated**.

The major **disadvantage of focused marketing** is the business risk of relying on a single segment of a single market. On the other hand, specialisation in a particular market segment can give a firm a profitable, albeit perhaps temporary, competitive edge over rival firms.

2.5.3 Micromarketing

Segmentation, as part of target marketing, looks likely to play an increasingly important role in the marketing strategies of consumer organisations in the years ahead. The move from traditional mass marketing to **micromarketing** is rapidly gaining ground as marketers explore more cost-effective ways to recruit new customers. This has been brought about by a number of trends:

(a) The ability to create large numbers of product variants without the need for corresponding increases in resources is causing markets to become overcrowded.

(b) The growth in minority lifestyles is creating opportunities for niche brands aimed at consumers with very distinct purchasing habits.

(c) The fragmentation of the media to service ever more specialist and local audiences is denying mass media the ability to assure market dominance for major brand advertisers.

(d) The advance in information technology is enabling information about individual customers to be organised in ways that enable highly selective and personal communications.

We will revisit this fourth point in more detail later in this chapter when we look at digital marketing and the characteristics of internet and social media marketing. This idea of increasingly detailed market segmentation is one of the benefits of 'big data' and analytics which we will discuss in Data analysis.

Interactive question 2: Market segmentation

Lucy Brown is a designer and manufacturer of knitwear clothing. She has based her designs on ethnic patterns, inspired by clothing she has seen in Central Asia. She has sourced her products both from these Asian regions – Uzbekistan and Kazakhstan – and from small factories in parts of the UK. Her products, though stylish, are relatively cheap, but her marketing strategy is totally passive. She has a website and most of her sales are reactive, responding to orders over the internet. The resultant sales and, in particular, profits have been disappointing and so she has hired a marketing consultant to give her some advice. The following are extracts from the consultant's report.

"Your product, although distinctive, is insufficiently unique. The designs have neither patents nor copyright and because the production technology is so simple and inexpensive, there are few barriers to entry. Competition is all too prevalent. Your promotion is too general. It focuses on no specific market. By relying on the internet, your advertising is rather indiscriminate and you have failed to create a loyal following and your image is diffused with little opportunity for building brand awareness. There is a failure within distribution. Most consumers wish to see, handle or try on products before making a purchase, particularly if the products do not already have a well- established reputation and/or a brand name. In your case, the only exposure your products have is via the World Wide Web. Your pricing structure is too cost-based. You are able to source your products cheaply but your margins are too low to provide you with the necessary capital to reinvest if the business is to develop profitably in the future.

"You have failed to establish yourself in the marketplace as a dominant player. Too many of your business decisions are reactive and often too late to have adequate impact. You are following market trends and not attempting to lead them."

Lucy is naturally disturbed by the criticisms which this report has levelled at her company's operations and has decided that she must be more positive in her actions. In particular, she has decided that her marketing efforts must be more focused and she must pursue more proactively her competitive activities.

In order to focus her company's marketing efforts more precisely, Lucy has decided to segment the market for knitwear products.

Requirement

Suggest potential bases for segmenting this knitwear market and discuss the benefits which a more focused segmentation could bring to the company.

See **Answer** at the end of this chapter.

3 Positioning strategies

Section overview

- Once a company has identified the different segments in a market, and selected its target market, it then has to position its product or service in the marketplace. The objective of positioning is to create, and maintain, a distinctive place for a company and its products/ services in its target market.
- On occasions it will be necessary to reposition products or brands to improve their performance or to increase market share.
- Price is a key element of positioning. When considering any promotions or discounts, as well as assessing the impact a promotion could have on revenue, marketing managers also need to consider the impact that any price changes in the promotion could have on a

brand's positioning.

- Ultimately, the aim of marketing strategy and promotions is to boost revenue, and in this context, revenue can be viewed as the culmination of all an entity's marketing activities.

3.1 Positioning and positioning strategies

3.1.1 Positioning

So far we have looked at market segmentation and target market selection. However, in order to develop an effective marketing strategy, a firm also has to decide how to position its product or service in the marketplace.

Definition

Positioning: The 'act of designing the company's offer and image so that it occupies a distinct and valued place in the target customers' mind'. (Kotler and Keller, Marketing Management)

Positioning strategies are based on the results of two key sets of choices:

(a) Target markets – Where a firm or brand wants to compete.

(b) Differential advantage – How a firm or brand wants to compete. (What advantages can it offer its customers that competitors cannot replicate?)

Link between marketing strategy and business strategy

Notice how the bases of these positioning strategies reflect the same key sets of choices that we looked at in Strategic choice in the context of the business strategies which firms should choose to achieve their objectives: how to compete (eg, cost leadership vs differentiation), and where to compete (eg, Ansoff's product-market matrix).

3.1.2 Positioning and strategy

Once an organisation has decided which customer groups within which market segments to target, it has to determine how to present the product to this target audience. This allows it to address the needs and requirements of the target groups exactly, with a marketing mix that consists of product characteristics, price, promotional activities and distribution channels.

Context example: Tesla

When Tesla entered the electric vehicle (EV) marketplace, it decided not to compete with existing EVs – like Toyota hybrids – but to target a completely new market segment: luxury sports EVs. Tesla's market is clearly distinct from the market for luxury petrol- or diesel-powered cars, and it is also distinct from the market for less expensive EVs.

However, having launched its product portfolio with the premium priced Model S, and then expanded its product line with a second premium model – Model X – in 2017 Tesla introduced a lower-priced, higher-volume EV, Model 3. Nonetheless, the Model 3's 'base price' (before any options and features) is $35,000, and if buyers include optional features that price could more than double.

Therefore, even though the Model 3 is less expensive than its predecessors, Tesla still aims to be targeting the higher priced end of the market.

Positioning should be used to help a company or brand develop a strong and distinctive image which differentiates it from its competitors, in the minds of its **target customers**. Factors which could be used to help position a product include: price, quality, reliability, supporting services/after-sales service and value for money.

However, because position is ultimately based on customers' **perceptions**, it is important that marketers focus most on the factors which are **most important to the customers**. For example, there are a range of product characteristics that car manufacturers could focus on, such as: speed, fuel efficiency, security, luxury interiors and image. The factors which a manufacturer chooses to emphasise should be those that are most important to its target market, such that the positioning image of their car matches the aspirations of its target customers.

However, another consequence of 'position' being ultimately based on customers' perceptions is that it is only partly within marketers' control. External developments could change the way customers think about a product: for example, as a result of a change in the price of a competitor product, or the launch of a new rival product or substitute product, or test results by a consumer magazine or research institution which call into question some of the claims made about a product.

3.1.3 Steps in positioning

We can identify three key steps in the positioning process:

- **Identify differentiating factors** in products or services which provide an organisation with competitive advantage in relation to competitors.
- **Select the most important differences**, and select an overall positioning strategy based on them.
- **Communicate, and deliver**, the position to the target market.

The value of positioning is that it enables tactical marketing mix decisions to be made.

3.1.4 Issues with positioning

Although positioning can help an organisation determine its marketing mix, Jobber suggests that a positioning strategy must have four key elements if it is to be successful:

(a) **Clarity** – The positioning idea must be clear in terms of both its target market and the differential advantage. Simple positioning messages (such as Stella Artois' classic tagline 'Reassuringly expensive') are often the clearest and most memorable.

(b) **Consistency** – A consistent message must be presented. Customers will become confused if the basis of positioning changes from 'quality of service' one year to 'superior product performance' the following year.

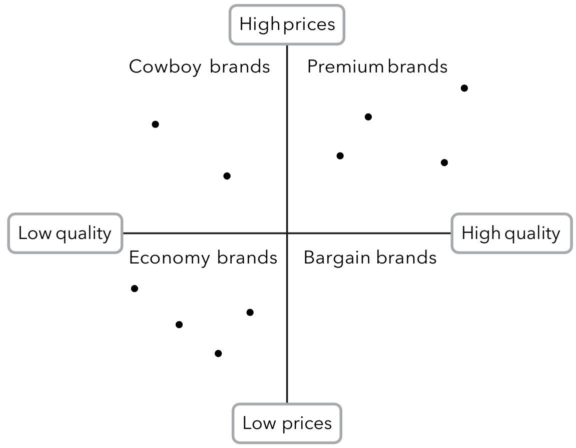
(c) **Credibility** – The differential advantage that is chosen as a basis for positioning must be credible in the minds of the customer. For example, the brand image of some types of car would make it difficult for them to be marketed as 'luxury'.

(d) **Competitiveness** – The differential advantage must offer something of value to the customer which competitors cannot supply or match.

3.1.5 Perceptual maps

Perceptual maps can be used to plot brands in terms of their perceived **price** and perceived **quality**.

Figure 5.1: Perceptual (or positioning) map



A perceptual map of market positioning can also be used to **identify gaps in the market**. The example above might suggest that there could be potential in the market for a low price, high quality **'bargain brand'**. A company that carries out such an analysis might decide to conduct further research to find out whether there is scope in the market for a new product which would be targeted at a market position where there are few or no rivals.

3.1.6 Mapping positions

We can look at the different competitive positioning strategies an organisation can use by looking at a 3 × 3 matrix of 9 different competitive positioning strategies.

Product quality	Product price		
	High price	**Medium price**	**Low price**
High	Premium strategy	High-value strategy	Super-value strategy
Medium	Overcharging strategy	Medium-value	Good-value strategy
Low	'Rip off' strategy	Fake company strategy	Economy strategy

The 'natural' combinations of price and quality will be to sell a high-quality product at a high price, an average-quality product at a medium price, or a low-quality product at a cheap price.

However, a company might want to offer a product at a comparatively low price if it is trying to increase its market share (ie, it is pursuing a market penetration strategy). For example, a company trying to increase its market share could offer a high-quality product at a medium price.

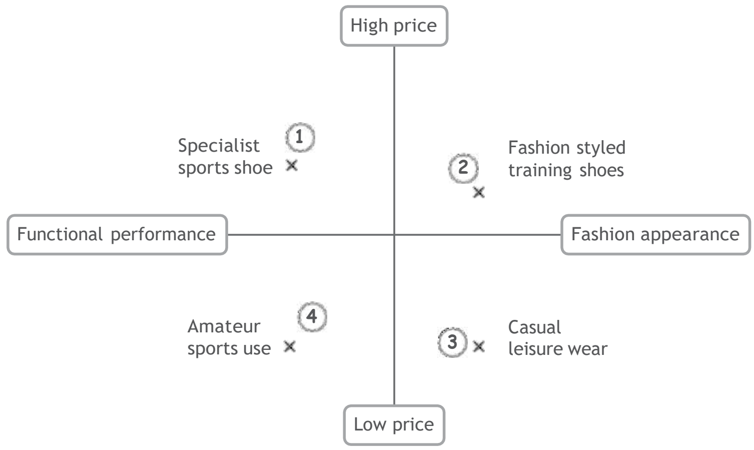
By contrast, such a positioning exercise might indicate that some companies are charging a higher price for their products than the quality justifies. Such a strategy is unlikely to be successful in the longer term, so a company in this position will either need to increase the quality of its product, or reduce its price.

Positioning and strategy

Once an organisation has selected its target segment in a market, the needs of the targeted segment can be identified, and the marketing mix strategy developed to provide the benefits package needed to satisfy them. Positioning the product offering then becomes a matter of matching and communicating appropriate benefits.

Positioning map (sports shoes)

Figure 5.2: Positioning map for sports shoes



The figure above indicates that there are a variety of sports shoe products offering distinct positions on the price vs fashion/functionality spectrum. A firm entering this market could try to establish a unique position; for example, it could offer a high price, ultra-high fashion shoe (at the outer extremeof the top right-hand quadrant). Possible implications of this might be that the existing product '2' becomes less profitable as fashion-conscious customers switch to the new product; or alternatively, customers may not value the price/fashion mix of the new product, and so sales of product '2' will remain largely unaffected.

3.2 Repositioning

Strategic managers must be prepared to deal with under performance and failure. One possible response is repositioning of the market offering.

Definition

Repositioning: A competitive strategy aimed at changing position in order to increase market share.

However, repositioning is a difficult and expensive process, since it requires the extensive remoulding of customer perceptions. The danger is that the outcome will be confusion in the mind of the customer and failure to impress the selected new market segments.

Bases for repositioning

Type of position	Comment
Real	Relates to actual product features and design
Psychological	Change the buyer's beliefs about the brand
Competitive	Alter beliefs about competing brands
Change emphasis	The emphasis in the advertising can change over time

An important implication of positioning is the potential impact that sales and discounts have on customers' perception of price and value. For example, if a retailer regularly offers money-off deals, will customers treat the discounted price as being a better indicator of the brand's position than the 'full' price, which is rarely used?

Retailers need to be aware of the negative consequences of setting artificial 'sales' prices. The use of persistent 'sales' by retail outlets can lead to increasing scepticism about the integrity of the sales – especially sales which 'must end soon' but rarely do!

The use of sales and discounts also has an impact on the profit margins that a company can achieve. Nonetheless, if a company is trying to break into a new market, or to increase market share, then setting a low price initially ('penetration pricing') may be an appropriate strategy. Although the low price may mean that the product generates a low profit at first (or even makes a loss), once consumers are locked in to using the product, then the price can be increased, allowing the product to generate higher profits in the longer term.

Context example: Repositioning Burberry

In November 2017, Burberry announced plans to reinvent itself as a super luxury British brand, like Gucci and Dior, in order to be able to command higher prices and profit margins.

The company's in-coming CEO, Marco Gobbetti, revealed plans to move the brand upmarket, to turn its stores into 'temples of luxury' and to stop selling its coats and handbags through some department stores. He said that Burberry needed to 'sharpen [its] brand position' in order to compete in 'the most rewarding, enduring segment of the market'.

Mr Gobbetti cited the example of polo shirts which were priced at £145 to £275 each, and he said these needed to be priced about 50% higher to match other luxury players. On the other hand, he said some products such as Burberry's famous trench coats, which cost around £1,200, were already at about the right level.

One fund manager, with shares in Burberry said: 'Mr Gobbetti wants to take Burberry out of all but the most exclusive stores… It's a textbook luxury brand positioning, which should leave Burberry jostling up against the world's most exclusive names, with the margins to match. But this will take time, and in the [short] term, sales growth will be held back and the group must invest more to achieve its goals.' However, the fund manager acknowledged that true luxury brands can command very high pricing power, generating excellent margins and cash flows, and are more resistant to downturns (because of the wealth of their clients). As such, the fund manager said he felt Burberry's move upmarket made sense.

However, other commentators were more sceptical, arguing that Burberry had a very long history (over 150 years), and trying to reposition the brand would mean moving away from that history, and would be very damaging for the brand. Burberry is not 'meant' to be a super-luxe brand like Dior, Gucci or Hermes. It is a brand that has a particular combination of accessibility mixed with luxury. It is a brand in which it is fashionable to be functional. These combinations are assets which distinguish the brand from others, not weaknesses to be erased.

Following the announcement, the company's shares fell 10% as investors took fright at Mr Gobbetti's plans. Nonetheless, as one commentator noted, it will take time for the re-positioning of Burberry to be completed, so it will be interesting to note over time which of the two opinions proves to be correct.

Based on:

Wood, Z. & Kollewe, J. (9 November 2017) 'Burberry to reinvent itself as a super luxury British brand', *The Guardian*, [Online] Available from: https://www.theguardian.com/business/2017/nov/09/burberry-to-reinvent-itself-as-a-super-luxury- british-brand [Accessed 8 August 2018]

Ritson, M. (15 November 2017) 'Burberry's luxury repositioning won't work, it's not in the brand DNA', *Marketing Week* [Online] Available from: https://www.marketingweek.com/2017/11/15/mark-ritson- burberry-repositioning/[Accessed 8August 2018]

3.3 Pricing and revenue

The axis of positioning maps (discussed in section 3.1 above) highlights the importance of firms' matching the price of their goods or services with the perceived quality of them, since many customers view price as an indicator of quality.

Equally, however, the price which a firm charges for a product is likely to be strongly influenced by its positioning strategy as well as the firm's overall strategic objectives. For example, a firm pursuing a low cost strategy (eg, Lidl) also sells its products at low prices (ie, using a low price strategy), while luxury brands (pursuing differentiation strategies) will sell their products at premium prices.

However, a low price strategy can also be used initially with a view to making money later. This is the logic behind penetration pricing: initially using a low price to break into a new market, and then increasing the price in the longer term.

These points highlight that price is a key element of the marketing mix, and therefore it is vital for an organisation to consider how 'price' information aligns with the other elements of its marketing mix. (You should have already covered the fundamentals of pricing and pricing issues in the Business Strategy and Technology syllabus, although we revisit them briefly in Information strategy in this Workbook.)

Initiating price changes

When analysing price in a competitive environment, it is important to remember that prices are dynamic. Managers need to know when to raise or lower prices, and whether or not to react to competitors' price moves.

The following factors could all be reflected in rising prices:

- excess demand for a product
- rising costs incurred in producing a product
- market research which reveals that customers place a higher value on a product than is reflected in its price

Conversely, prices may be reduced if there is excess supply of a product; if costs are falling; or if the current price is deemed to be high compared to the value customers give to a product.

The idea of changing prices in relation to the relative levels of demand and supply has been particularly important in the transportation and hospitality industries, where prices are adjusted seasonally or after initial demand has been observed. For example, the price of tickets on a flight often varies according to the number of unsold seats remaining on the fight.

Additionally, and similar to the idea of penetration pricing noted above, price cutting may be used to build sales and increase market share when customers are thought to be sensitive to price. (However, price cutting in this context may not be successful if competitors follow suit and a price war ensues.)

As well as changing prices directly, there are other tactics companies can use which effectively change the price customers pay for products or services; for example, price bundling or unbundling, and applying discounts to the list price.

Professional skills focus: Applying judgement

The SBM&L exam tests your ability to apply judgement to a situation where the strategy is unclear. For example, the decision to change price depends on a variety of factors, so it is important to be able to draw inferences from any qualitative and quantitative analysis as well as to evaluate the future business impact of your decision. Remember that there is often no single correct answer to a business problem.

3.3.1 Bundling and unbundling Bundling

Where a number of products and services that tend to be bought together are priced separately, price bundling can be used to effectively lower the price. For example, a new car could be sold with 'free insurance for the first year' or a new television could be sold with a 'free two-year repair warranty'.

In practice, the price of the car or the television may already include some allowance to cover the cost of the insurance or the warranty, but the bundled price is still likely to be lower than the cost of buying the car plus insurance separately.

Unbundling

By contrast, price unbundling is a tactic which could be used to effectively raise prices. Many product offerings actually consist of a set of products for which an overall price is set (for example, computer hardware and software). Price unbundling allows each element of the product to be priced separately, in such a way that the total price is raised.

In a similar way, companies could charge separately for services that were previously included in a product's price. For example, suppliers of office IT systems have the option of unbundling installation and training services, and charging for them separately.

IFRS 15, *Revenue from Contracts with Customers*

Unbundling is addressed in IFRS 15, *Revenue from Contracts with Customers*, which replaced IAS 18, *Revenue* and IAS 11, *Construction Contracts* for accounting periods beginning on or after 1 January 2018.

The rationale behind IFRS 15 is that its predecessor (IAS 18) provided limited guidance on revenue recognition for multiple-element arrangements (bundles): for example, when a consumer buying a new car also receives a year's motor insurance cover as part of the purchase price; or when a consumer books a holiday online, bundling together an air fare, hotel accommodation and travel insurance.

IFRS 15 aims to establish a comprehensive framework for determining **when** to recognise revenue and **how much** revenue to recognise.

The core principle of IFRS 15 is that revenue is recognised to depict the transfer of goods or services to a customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services (IFRS 15: para. 2).

The transfer of goods and services is evidenced by the transfer of **control**.

Revenue is recognised in accordance with this core principle by applying a five **step model**.

STEP 1

Identify the contract with the customer

The contract must have commercial substance and it must be probable that the entity will collect the consideration to which it will be entitled.

STEP 2

Identify the separate performance obligations in the contract

The key point is distinct goods or services. A contract includes promises to provide goods or services to a customer. Those promises are called performance obligations. A company would account for a performance obligation separately only if the promised good or service is distinct. A good or service is distinct if it is sold separately or if it could be sold separately because it has a distinct function and a distinct profit margin.

STEP 3

Determine the transaction price

The transaction price is the amount of consideration a company expects to be entitled to from the customer in exchange for transferring goods or services. The transaction price would reflect the company's probability-weighted estimate of variable consideration (including reasonable estimates of contingent amounts) in addition to the effects of the customer's credit risk and the time value of money (if material).

Variable contingent amounts are only included where it is highly probable that there will not be a reversal of revenue when any uncertainty associated with the variable consideration is resolved. Examples of where a variable consideration can arise include: discounts, rebates, refunds, price concessions, credits and penalties.

Worked example: Variable consideration

In January 20X6 Lasskey Properties Ltd (LPL) enters into a contract to build an extension to an existing warehouse for an agreed fee of £40 million. The contract terms require completion by 30

September 20X6. The price will decrease by £100,000 for each day after this that the project remains incomplete. At the year-end of 30 June 20X6, LPL expects that there is a 75% chance of the project being completed on time, a 15% chance of it being completed a day late, a 6% chance of it being completed two days late and a 4% chance of it being completed three days late.

Requirement

What is the transaction price?

Solution

The consideration is variable due to the price concession, ie, the fact that LPL will accept an amount that is less than the price stated in the contract if the project overruns.

Here the calculation of transaction price is based on expected values.

	£
75% × £40,000,000	30,000,000
15% × £39,900,000	5,985,000
6% × £39,800,000	2,388,000
4% × £39,700,000	1,588,000
Transaction price	39,961,000

STEP 4

Allocate the transaction price to the performance obligations

Where a contract contains more than one distinct performance obligation an entity allocates the transaction price to all separate performance obligations in proportion to the stand-alone selling price of the good or service underlying each performance obligation. If the good or service is not sold separately, the entity would have to estimate its stand-alone selling price. So, if an entity sells a bundle of goods and/or services which it also supplies unbundled, the separate performance obligations in the contract should be priced in the same proportion as the unbundled prices. This would apply to mobile phone contracts where the handset is supplied 'free'. The entity must look at the stand-alone price of such a handset and some of the consideration for the contract should be allocated to the handset.

Context example: Unbundling

A mobile phone company gives customers a free handset when they sign a two-year contract for provision of network services. The handset has a stand-alone price of £52 and the contract is for £20 per month.

Under IFRS 15, revenue must be allocated to the handset because delivery of the handset constitutes a performance obligation. This will be calculated as follows:

	£	%
Handset	52	10
Contract – two years	480	90
Total value	532	100

As the total receipts are £480, this is the amount which must be allocated to the separate performance obligations. Revenue will be recognised as follows:

	£
Year	1
Handset (480 × 10%)	48
Contract (480 – 48)/2	216
	264
Year 2	
Contract (as above)	216

STEP 5

Recognise revenue when (or as) a performance obligation is satisfied

The entity satisfies a performance obligation by transferring **control** of a promised good or service to the customer. A performance obligation can be satisfied **at a point in time**, such as when goods are delivered to the customer, or **over time**. An obligation satisfied **over time** will meet one of the following criteria:

- The customer simultaneously receives and consumes the benefits as the performance takes place.
- The entity's performance creates or enhances an asset that the customer controls as the asset is created or enhanced.
- The entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

The amount of revenue recognised is the amount allocated to that performance obligation in Step 4.

An entity must be able to **reliably measure** the outcome of a performance obligation before the related revenue can be recognised.

In some circumstances, such as in the early stages of a contract, it may not be possible to reliably measure the outcome of a performance obligation, but the entity expects to recover the costs incurred. In these circumstances, revenue is recognised only to the extent of costs incurred.

The core principle of the standard is that an entity 'should recognise revenue to depict the transfer of promised goods or services to the customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services'.

To achieve this, the entity would have to identify the separate elements of their contract with a customer, and then allocate the transaction price to the separate performance obligations in the contract (for example, allocating the price the customer has paid for the car between the cost of the car itself and the cost of the year's insurance).

To allocate an appropriate amount to each separate performance obligation, an entity should determine the stand-alone selling price of each obligation at the time when the contract with the customer is signed, and then allocate the transaction price in proportion to the stand-alone selling prices of each obligation.

IFRS 15 also highlights that an entity should only recognise revenue when it satisfies a performance obligation. So, for example, the 'revenue' from the two-year warranty sold with a new television should be spread over the two years, rather than all being recognised at the point the television was sold.

Interactive question 3: Revenue recognition

A £210,000 fixed-price contract is entered into for the provision of services. At the end of 20X7, the first accounting period, the contract is thought to be 33% complete and costs of £45,000 have been incurred in performing that 33% of the work.

Requirements

Calculate the revenue to be recognised in 20X7 on the alternative assumptions that:

2.1 the costs to complete are reliably estimated at £90,000; and

2.2 the costs to complete cannot be reliably estimated and it is thought that £40,000 of the costs incurred are recoverable from the customer.

See **Answer** at the end of this chapter.

Worked example: Goods and services provided in one contract

As we noted above, companies frequently bundle together goods and services into one transaction; for example, a car dealer may sell new cars with one year's free servicing and insurance.

In such cases:

- the components of the package which could be sold separately should be identified; and
- each should be measured and recognised as if sold separately.

IFRS 15 does not specifically state how each component should be measured but general principles require that each component should be:

- measured at its fair value
- recognised as revenue only when it meets the recognition criteria

If the total of the fair values exceeds the overall price of the contract, an appropriate approach would be to apply the same discount percentage to each separate component.

A car dealer sells a new car, together with 50 litres of fuel per month for a year and one year's servicing, for £27,000. The fair values of these components are: car £28,000, fuel £1,200 and servicing £800.

Requirement

How should the £27,000 be recognised as revenue?

Solution

The total fair value of the package is £30,000 (28,000 + 1,200 + 800) but is being sold for £27,000, a discount of £3,000 or 10%.

The discounted fair value of the car should be recognised as revenue upon delivery:

£28,000 × 90% = £25,200

The discounted fair value of the fuel should be recognised as revenue on a straight line basis over the next 12 months:

£1,200 × 90% = £1,080

The discounted fair value of the servicing should be recognised as revenue at the earlier of when the servicing is provided and the end of the year:

£800 × 90% = £720

3.3.2 Discounts

Another way companies can change the price of an item is through the use of discounts.

A commonly used way of offering discounts is as a percentage of the list price of an item. For example, the list price of an item could be £50, but if a 20% discount is applied, the price to the customer will only be £40.

While this kind of discount is often used by retailers in relation to the goods they are selling to individual consumers, a similar idea can be applied to the volume discounts companies give to trade customers; where the actual price they pay for goods is discounted in recognition of the volume of purchases they make.

This idea of volume discounting could equally be applied directly to purchases of individual products by individual customers: for example, the price of one bottle of wine might be £8, but customers could also buy two bottles for £15.

For many products, a manufacturer will identify a recommended retail price (RRP). However, in practice a retailer may choose to sell the product at a lower price; highlighting the difference between its price and the RRP.

Another way of applying discounts is to offer customers a monetary reduction in the cost of their purchases if they spend a given amount; for example, £5 off if they spend £50.

Discounts and positioning

While offering special promotions and discounts can boost sales by encouraging additional customers to buy a product, it is also important to think about their potential implications for positioning and the perceived value of a product. For example, if the price of a product is reduced from $50 to $40, will customers perceive the value of the item now also to be $40 or will they still be prepared to pay the full price once the discount period comes to an end?

In this context, it is important to highlight the distinction between discounts and promotions and the notion of **everyday low prices**. This distinction again has important implications in the context of positioning.

Promotions and discounts can be used to attract consumers to buy specific items at a specific time, but they are not usually designed to reposition the item or brand. However, an alternative to using specific promotions is to set lower prices on a regular basis; in effect, to introduce everyday low prices. This is the approach taken by Wal-Mart (Asda) supermarkets. Rather than focusing on specific promotional prices, they aim to attract customers on the basis of everyday low prices. As such, Asda (Wal-Mart's UK arm) has positioned itself differently to the majority of other supermarkets in the UK.

Discounts and revenues

An important issue for companies to consider in relation to any possible discounts and promotions will be the potential impact on revenues (and profits) which could arise from any changes in price or position.

The logic of price promotion is that it enables companies to sell higher volumes of a product by temporarily decreasing the price. Nonetheless, it is important to achieve a balance between volume growth and profitability; for example, to avoid offering too many discounts such that profits fall despite volume increasing.

Discounts can also be used when a company's products are sold in the form of long-term commitments, such as phone and internet contracts. Promotional offers (for example, reduced prices for the first three months of a contract) help attract customers who then commit to contracts and produce revenue over a long-term horizon.

However, alongside this, companies also have to decide when to begin increasing contract fees and by how much fees can be raised in order to avoid losing customers. In effect, companies have to analyse how to maximise revenue while minimising churn (the rate of losing customers).

3.3.3 Markdowns

One specific use of price reductions is in the fashion industry. Fashion clothes have very short life cycles: typically one season. Therefore, as the end of the season approaches the prices of clothes are marked down, and eventually the clothes are replaced by the new season's ranges.

Whereas discounts and promotions only involve temporary price reductions, markdowns affect the price of an item permanently. After a markdown, the price of the item marked down will not typically increase again.

3.4 Revenue recognition and profit

The use of price discounts and promotions (eg, money-off coupons) is one of the main techniques a company can use to try to boost sales (particularly in the short term). Ultimately the aim of marketing strategy as a whole is to boost revenue; meaning that revenue could also be viewed as the culmination of all of an entity's marketing activities.

Revenue recognised in the financial statements is a measure of the success of the marketing strategy. Revenue recognition also considers accounting for some marketing initiatives such as discounts and other sales incentives. It may not, however, take full account of the success of longer-term marketing initiatives, such as building a brand.

Some companies have adopted questionable practices concerning the reporting of revenue as part of aggressive earnings management policies. This has led to different companies, operating within the same business sector, adopting varying accounting policies on revenue. In turn, these variations in accounting policy have resulted in marked variations in the timing and measurement of revenue, and hence profit.

Some of the high-profile accounting scandals have involved manipulation of revenue, such that revenue has been recognised in an inappropriate manner, resulting in reported profits also being hugely inflated. For example, the £250 million over-statement in Tesco's profits which was uncovered in September 2014, resulted from revenue recognition issues relating to the volume rebates that Tesco receives from its suppliers.

An effective and credible accounting standard on revenue is therefore essential to ensure that a company's success in selling into its markets is measured and reported appropriately. IFRS 15,*Revenue from Contracts with Customers* is intended to provide a robust framework for addressing revenue issues.

Revenue recognition

A significant issue in accounting for revenue is determining **when** to recognise revenue (ie, it is largely a timing issue). IFRS 15 states that revenue is recognised to depict the transfer of promised goods and services to customers. Revenue is therefore generally recognised as being earned at the point of sale for goods. For services, revenue is, in general, recognised over the period that the service is delivered.

The recognition criteria in IFRS 15 are usually applied separately to each transaction. However, in certain circumstances, it is necessary to apply the recognition criteria to the separately identifiable components of a single transaction in order to reflect the substance of the transaction. IFRS 15 refers to these separately identifiable components as separate performance obligations. For example, when the selling price of a product includes an identifiable amount for subsequent servicing, that amount is deferred and recognised as revenue over the period during which the service is performed.

Discounts

IFRS 15 requires that the transaction price should take into account the amount of any trade discounts and volume rebates allowed by the entity. The discount should be allocated proportionately to the performance obligations in the contract.

Therefore, an organisation which offers trade discounts would be expected to show a lower profit margin on its revenue than an organisation which did not offer similar discounts.

Worked example: Discounts and sales incentives

Caravans Deluxe is a retailer of caravans, dormer vans and mobile homes, with a year end of 30 June. It is having trouble selling one model – the £30,000 Mini-Lux, and so is offering incentives for customers who buy this model before 31 May 20X7:

(1) Customers buying this model before 31 May 20X7 will receive a period of interest-free credit, provided they pay a non-refundable deposit of £3,000, an instalment of £15,000 on 1 August 20X7 and the balance of £12,000 on 1 August 20X9.

(2) A three-year service plan, normally worth £1,500, is included free in the price of the caravan.

On 1 May 20X7, a customer agrees to buy a Mini-Lux caravan, paying the deposit of £3,000. Delivery is arranged for 1 August 20X7.

As the sale has now been made, the director of Caravans Deluxe wishes to recognise the full sale price of the caravan, £30,000, in the accounts for the year ended 30 June 20X7.

Requirement

Advise the director of the correct accounting treatment for this transaction. Assume a 10% discount rate.

Solution

The director wishes to recognise the sale as early as possible. However, following IFRS 15, *Revenue from Contracts with Customers*, revenue from the sale should only be recognised when the performance obligations in the contract have been satisfied.

Performance obligations in the contract

The contract contains a promise to deliver the caravan and a promise to deliver additional services free of charge. These are distinct promises and therefore the contract contains two performance obligations.

Transaction price

The transaction price is made up of three elements.
A significant financing component must be considered where consideration is received more than 12 months before or after the date on which revenue is recognised (being the delivery date, 1 August 20X7). Therefore the payment on 1 August 20X9 must be discounted to present value at 1 August 20X7.

	£
Deposit	3,000
Payment on 1.8.X7 (the delivery date)	15,000
Payment on 1.8.X9 (£12,000/1.1^2)	9,917
	27,917

Allocation to performance obligations

The transaction price is allocated based on standalone selling prices:

Caravan	30,000/(30,000 + 1,500) × £27,917	=	£26,588
Free service plan	1,500/(30,000 + 1,500) × £27,917	=	£1,329

Recognition of revenue

The performance obligation to deliver the caravan is satisfied on 1 August 20X7 and therefore the revenue in respect of delivering the caravan is recognised on this date. The performance obligation to fulfil the service plan is satisfied over the three years from this date.

Journal entries are as follows:

1 May 20X7

The receipt of cash in the form of the £3,000 deposit is recognised on receipt as a contract liability(deferred income) in the statement of financial position by:

DEBIT	Bank	£3,000	
CREDIT	Contract liability (deferred income)		£3,000

1 August 20X7

Revenue is recognised on delivery of the caravan together with payment of the £15,000 instalment.The contract liability for the £3,000 deposit is eliminated:

DEBIT	Bank	£15,000	
DEBIT	Contract liability		£3,000
DEBIT	Receivable	£9,917	
CREDIT	Contract liability		£1,329
CREDIT	Revenue (relating to caravan)	£26,588	

Customer retention and loyalty

An important issue in marketing is customer retention, and one way that organisations try to encourage loyalty is through the use of loyalty schemes. However, these schemes create a potential issue around the recognition and measurement of obligations when companies have to provide customers with free or discounted goods or services, if and when they choose to redeem the credit they have accrued on their loyalty awards.

Accounting for customer loyalty programmes

IFRS 15 requires that separately identifiable performance obligations are accounted for separately. This suggests that when a loyalty card customer buys a product or service, the proceeds of the sale are split into two components: an amount reflecting the value of the goods or services delivered in the sale, and an amount that reflects the value of the loyalty award credits.

Proceeds allocated to the first component are recognised as revenue at the time of the first sale. However, proceeds allocated to the award credits are deferred as a liability until the entity fulfils its obligations in respect of the award, either by supplying free or discounted goods when a customer redeems the credit, or engaging (and paying) a third party to do so.

For instance, a retailer gives customers a £1 loyalty point for each £15 they spend. A customer spends £750 and obtains £50 of loyalty points (750/15). The £750 will be allocated to the goods and loyalty points as follows:

Goods – (750 × 750/800) = 703.12

Loyalty points – (750 × 50/800) = 46.88

When the loyalty points are redeemed, the retailer will recognise £0.94 (46.88/50) for each £1 redeemed.

Options for additional goods and services

The option to acquire additional goods or services is a separate performance obligation in the initial sale contract when it provides a **material right** to the customer that they wouldn't receive otherwise.

When this is the case, the proportion of consideration received from the customer that relates to the future goods or services to be supplied is deferred and recognised as revenue at the earlier of:

- the date on which the future goods and services are provided; or
- the date on which the option to acquire the additional goods and services expires.

Allocation of consideration is based on stand-alone selling prices of the goods or services, which may have to be estimated for future potential goods or services. The estimate should take into account the discount that the customer would obtain on the exercise of the option, adjusted for:

(a) any discount that the customer could receive without exercising the option; and

(b) the likelihood that the option will be exercised.

In some circumstances, a customer may have the option to acquire an additional good or service at a price that reflects the stand-alone selling price. In this case, that option does not provide the customer with a material right, even if the option can only be exercised by entering into a previous contract. Here the entity has made a marketing offer that is accounted for in accordance with IFRS 15 when the customer exercises the option to purchase additional goods and services.

Worked example: Customer loyalty scheme

Wake Up Coffee Ltd (WUCL) operates a customer loyalty scheme whereby if a customer buys nine coffees and has their loyalty card stamped, the 10th coffee is provided free of charge. During 20X5 customers buy 94,995 coffees for an average of £2 each, so earning the right to a maximum of 10,555 free coffees, each of which has an average stand-alone price of £2. WUCL expects 7,400 of the free coffees to be claimed and by 31 December 20X5, 5,250 have been claimed.

Requirement

Explain how revenue is recognised on the sale of coffees.

Solution

The loyalty scheme provides customers with a material right that they would not benefit from if they had not bought coffees in a normal sale transaction. Therefore the promise to provide a free 10th coffee is a performance obligation, and total revenue of £189,990 (94,995 × £2) is allocated between the sale of coffees and the loyalty scheme.

Revenue is allocated to the provision of 'stamps' based on the expected take up rate and the stand- alone selling price basis ie, based on a total stand-alone selling price of £14,800 (7,400 × £2):

		£
Coffee sales	£189,990 × (189,990/(189,990 + 14,800))	176,260
Loyalty stamps	£189,990 × (14,800/(189,990 + 14,800))	13,730
		189,990

At 31 December 20X5, 5,250 of the expected 7,400 free coffees have been claimed, therefore of the

£13,730 transaction price allocated to loyalty stamps:

- £9,741 (5,250/7,400 × £13,730) is recognised as revenue; and
- £3,989 is recognised as a contract liability for the unredeemed loyalty stamps.

Therefore total revenue recognised in 20X5 is £186,001 (176,260 + 9,741).

Construction Contracts

In some industries, entities will make or build substantial assets for sale, such as aeroplanes and car assembly lines, which will often take a number of years to complete. The accounting problem is that of deciding when to recognise the profit if a profitable construction contract spans a number of accounting periods.

IFRS 15 refers to this as a contract 'in which performance obligations are satisfied over time'. It is therefore necessary to be able to measure what amount of performance obligation has been satisfied during an accounting period. This determines the amount of revenue that can be recognised. Progress can be measured using output methods (measuring the value to the customer of goods or services transferred to date) or input methods (measuring the cost to the entity of goods or services transferred to date) (IFRS 15: para. B14).

In the early stages of a contract it may not be possible to reliably measure the outcome of a performance obligation, but the entity is entitled to recover costs incurred. In this case, revenue can be measured to the extent of costs incurred.

A contract where performance obligations are recognised over time may give rise to asset or liability amounts at the end of the reporting period.

Contracts with customers will be presented in an entity's statement of financial position as a contract liability, a contract asset or a receivable, depending on the relationship between the entity's performance and the customer's payment (IFRS 15: para.105).

A **contract liability** is recognised and presented in the statement of financial position where a customer has paid an amount of consideration prior to the entity performing by transferring control of the related good or service to the customer (IFRS 15: para.106).

When the entity has performed but the customer has not yet paid the related consideration, this will give rise to either a **contract asset** or a **receivable**. A contract asset is recognised when the entity's right to consideration is conditional on something other than the passage of time, for instance future performance. A receivable is recognised when the entity's right to consideration is unconditional except for the passage of time (IFRS 15: para. 107).

Where revenue has been invoiced a receivable is recognised. Where revenue has been earned but not invoiced, it is recognised as a contract asset.

The measurement of contract activity can require a significant amount of judgement in the assessment of the progress to date, and the ultimate outcome, of the contract. Professional skills and experience are essential in this assessment process. The timing of the recognition of claims, variations and penalties under the contract can also affect revenue and profit significantly.

Worked example: Contract to construct a conference centre

Frizco Construction Company (FCC) begins the construction of a conference centre on behalf of a hotel group during 20X6. The agreed contract price is £35 million however this will be reduced by £3 million if FCC completes the centre a month or more behind schedule. During the year ended 31 December 20X6, costs incurred amounted to £9.3 million, including £500,000 material that could not be used in the project as it was of the incorrect grade to meet regulations. The total cost of the project (excluding the £500,000 in wasted material) is estimated to be £22 million. Work certified at the year-end was £12.25 million.

The construction is currently progressing in accordance with the agreed schedule.

Requirements

1 What amount of revenue is recognised in profit or loss in the year ended 31 December 20X6 if an input method is used to assess progress?

2 What amount of revenue is recognised in profit or loss in the year ended 31 December 20X6 if an output method is used to assess progress?

Solution

1 The transaction price is £35 million. £32 million is fixed consideration and £3 million is variable consideration. The transaction price is £35 million as the project is currently expected to be completed on time and therefore the single most likely outcome is receipt of £35 million.

Input method

Using the input method the project is 40% complete:

$$\frac{\text{Costs incurred to date}}{\text{Total expected costs}} = \frac{(9{,}300 - 500)}{22{,}000} = 40\%$$

Therefore 40% × £35m = £14 million is recognised as revenue in the year.

Note that the £500,000 wasted material is not relevant to the assessment of progress; however, it must be recognised in profit or loss as a wastage expense.

2 Output method

Using the output method the project is 35% complete:

$$\frac{\text{Work certified}}{\text{Transaction price}} = \frac{12{,}250}{35{,}000} = 35\%$$

Therefore 35% × £35m = £12.25 million is recognised as revenue in the year.

Interactive question 4: Building contract

At the beginning of 20X5, Stry, a building company, enters a contract to construct a commercial building for a customer, on land the customer owns, for a price of £10 million with a bonus of £2 million if the building is completed within 24 months.

Stry accounts for the contract as a single performance obligation, satisfied over time, because the customer controls the building during construction.

Stry prices its contracts to make an expected profit margin of 30%, based on its budgeted costs.

Completion of the building is highly susceptible to factors outside Stry's control, including the weather and regulatory approval. Stry's operations director is concerned that the project may end up costing more than originally budgeted, and take longer than planned, if there are delays and complications due to external factors.

At 31 December 20X5, work certified amounted to £5 million.

By 31 December 20X5, Stry's costs incurred on the contract have been £4.2 million.

The operations director, who studied accountancy some years ago, has suggested that an input method should be used to measure progress on the project.

Requirement

Calculate how much revenue should be recognised in Stry's statement of profit or loss for the year ended 31 December 20X5 if an input method is used to measure progress, and comment on the appropriateness of this figure.

See **Answer** at the end of this chapter.

4 The marketing mix

Section overview

- The marketing mix consists of four core elements: product, price, place and promotion, supplemented by an additional three for the marketing of services: people, processes and physical evidence.
- The elements of the marketing mix are the key decision areas which marketers have to manage to ensure that their product or service satisfies customers' needs better than competitor offerings do.
- The internet has had a major impact on the elements of the marketing mix, and companies need to recognise this when developing their marketing strategies.

4.1 The marketing mix and competitive advantage

Our definition of 'positioning' in the previous section highlights the importance of creating a distinctive position for a product or brand within a target market.

The way a firm looks to achieve this is through the marketing mix being applied to that product or brand. The role of the marketing mix is to develop a unique identity for a product or brand within the marketplace.

4.1.1 Elements of the marketing mix

One of the learning outcomes from the ICAB Business Strategy & Technology syllabus at Professional Level is that candidates should 'Understand the marketing mix, its roles and limitations'.

At Advanced Level, however, rather than simply 'understanding' the marketing mix, you will be expected to be able to demonstrate how a firm could use the different elements of the mix (product, price, place and promotion – the 4Ps; supplemented by people, process and physical evidence for service businesses – the 7Ps) to help generate competitive advantage.

An important point to note here is that applying a unique (and appropriate) mix of the elements of the marketing mix within a given market allows a firm to compete more effectively, thereby helping it to generate a sustainable profit. The elements of the mix are summarised briefly here:

Mix element	Comment
Product	The product (or service) is best considered as a collection of benefits, offered by the features that it provides. What features of the product or service are most critical to satisfying the customer's needs?
Price	The only element of the mix to bring in revenue, price is not solely determined by the cost of producing a good or service, but also by the value that the customer is prepared to pay for it. Price can be highly variable, but must support the overall positioning of the product. Price also needs to reflect overall marketing objectives: for example, profit maximisation, or market share leadership; and needs to consider the strength of competition in the market and competitors' positions.
Place	'Place' covers distribution channels, intermediaries and logistics between the producer and the end consumer. Logistics deals with transportation and storage. Distribution channels and intermediaries are other organisations that determine where a customer can acquire the product. Companies need to decide how much of their marketing function they are prepared to delegate to intermediaries. For example, will they outsource the logistics function, or use wholesalers rather than selling to retailers or end users? Also, companies need to decide whether to sell online or offline, or through a combination of both.
Promotion	This covers advertising, public relations, personal selling and direct mail – in other words, all aspects of marketing communications.
People	These include the people delivering a service. Inclusion of 'people' in the marketing mix reflects the fact that the consumer's perception of the quality of a service depends heavily on the people providing the product/service. A consumer's enjoyment of a service could also be influenced by the other people consuming it at the same time as them.
Processes	This is the process by which a product/service is provided. The process is sometimes referred to as the 'whole customer experience'. A customer of a top- class restaurant, for example, experiences the food, the atmosphere, the surroundings, the service, and so on. Process can also refer to the efficiency of the service. For example, the ease with which a well-designed loan application form can be completed could be an important element in a bank's loan service.

Mix element	Comment
Physical evidence	A service is intangible: physical evidence suggests that there is something to show for it. Examples of physical evidence include: • Evidence that the service has been performed. When people go on rollercoaster rides, the service provider arranges for photographs to be taken as people undergo the experience. For financial services, you may receive a certificate notifying you that you have joined a scheme – a legal document entitling you to the service but not, usually, the service itself. • The environment of the service encounter (eg, restaurant ambience, staff uniforms): Disney theme parks are a good example. Layout and cleanliness are important physical aspects of the service, and reinforce the family-friendly image.

Distribution (place) is often seen (wrongly) as the least important aspect of the traditional marketing mix, and therefore can tend to get overlooked. In companies where distribution involves the physical transport of goods and stores, undervaluing the importance of 'place' can be very costly, as a lack of coordination often results in inadequate control over the distribution function, and inefficient inventory management.However, as we saw in Strategic implementation, the increased importance of supply chain management, accompanied by the introduction of just-in-time (JIT) production and purchasing, should help to increase the profit of the 'place' element within the marketing mix.

4.2 Service marketing

We have already noted that an extended marketing mix (7 Ps) is used for service marketing, in contrast to the traditional 4 Ps. Services have a number of characteristics which distinguish them from physical goods, and as a result services may require special marketing efforts.

4.2.1 Intangibility

A pure service is not a physical thing, so it cannot be seen, tasted, touched, or smelled before it is bought. As such, it is difficult for customers to evaluate a service before buying it. For example, it will be difficult for a customer to judge how enjoyable a holiday will be before taking it. Similarly, the intangibility of services can also lead to difficulty in evaluation after consumption. For example, although a mechanic may tell a customer their car has been serviced, the customer cannot tell that everything which should have been checked has actually been checked.

The intangible nature of services means that the entities that provide them have to use tangible cues (**physical evidence**) to demonstrate the quality of their service. For example, a holiday firm may show pictures of their holiday destinations, and display testimonials from previous holidaymakers on their website. Similarly, a garage may provide a checklist of the items that need to be carried out in a car's service along with the mechanic's results for each item to show that the test has been carried out.

Note, however, that although we have identified that services are intangible, in practice many product offerings combine the tangible and the intangible. For example, if a customer buys a washing machine, the purchase of the physical machine may be supplemented by a service when the machine is delivered to their house and installed. As such, many purchases involve a mixture of goods and services, rather than simply being one or the other.

4.2.2 Inseparability

Unlike physical goods, services are produced and consumed simultaneously. For example, haircuts, medical operations, holidays, or concerts are all produced at the same time as they are consumed.

This inseparability illustrates the importance of the people providing the service, because the way they provide the service will have a crucial influence on the satisfaction gained by the consumer, and on the consumer's perception of the service experience. In turn, this will have a major impact on the level of repeat business.

As such, the inseparability of the production and consumption of services highlights the importance of the **people** element of the extended marketing mix. From the customers' perspective, the cabin crew on a flight personify the airline company, while the actions of the barber/hairdresser who perform a haircut will determine whether a customer is happy with their cut or not. Consequently, the selection, training and rewarding of staff who deal with customers will be fundamentally important in achieving high standards of service quality.

However, it is not only staff who can affect a consumer's satisfaction with a service. If the service is consumed in the presence of other consumers – for example, a restaurant meal – the actions of the other consumers can also influence the enjoyment of the service. If a couple want a quiet meal in the restaurant, their enjoyment of their meal will suffer if there is a large and noisy party of people on an adjacent table. Therefore, service providers must try to avoid inter-customer conflict as far as possible– for example, as some rail companies do by designating sections of carriages as 'quiet zones' where the use of phones is not permitted.

4.2.3 Heterogeneity/variability

Many services face problems in ensuring a consistent standard. For example, two restaurants within the same chain may provide different levels of service to their customers due to disparities in the capabilities of their respective managers and staff.

Moreover, because services are produced and consumed simultaneously, this means that a service fault (eg, rudeness of customer service staff) cannot be quality checked and corrected – unlike a physical product which undergoes an inspection before it leaves the production line. This highlights the importance of the **process** element of the marketing mix.

The potential for variability in service quality also emphasises the **people** element of the marketing mix – particularly in relation to the need for rigorous selection, training and rewarding of staff in service organisations. In this respect, service organisations should also consider linking staff rewards and remuneration to customer satisfaction surveys. If staff know that customers have the opportunity to report on their service experience – and in turn that the customer's feedback could affect their remuneration – this should incentivise the staff to provide a high quality of service.

Organisations can also try to tackle the problem of variability by trying to standardise their services as far as possible. In some cases, this involves the use of reliable equipment instead of people. For example, banks use ATMs to dispense cash instead of cashiers. Similarly, if a college delivers its courses as e-learning modules, this will reduce the scope for the quality of the courses to vary depending on the lecturers giving them.

4.2.4 Perishability

Services are perishable, in the sense that consumption cannot be stored for the future. A hotel room or an airline seat that is not occupied on a given day represents lost income that cannot be made up at a later date. Therefore, it is very important to **match supply and demand** for services. If a hotel has high occupancy levels during the week, but is much less full at weekends, the hotel's marketing activities should focus on ways of increasing the numbers of guests at weekends – for example, by offering discounted prices.

We have already identified that price is a key element of the marketing mix, and a pricing strategy which could be particularly important in managing demand for services is price discrimination.

Price discrimination (or **differential pricing)** can be used to encourage customers to use a service during an off-peak period. For example, rail companies charge different fares for a journey depending on the time of day that journey is made.

One method of price discrimination which **could** be particularly useful for service businesses is **dynamic pricing** (or time sensitive pricing). Dynamic pricing – where the price of the product or the service being provided changes according to the current levels of demand – is most profitable when the product expires at a point in time and capacity is fixed.

Dynamic pricing is particularly prevalent in the airline and hotel industries. For example, budget airlines initially set the prices for flights low while they are not sure what the level of demand will be for that flight. Sophisticated computer programs track the number of passengers booked onto the flight, and if passenger bookings are increasing more quickly than normal – or as the flight approaches capacity – the price will be increased.

Service providers may also be faced with the problem of catering for peak demand when supply maybe insufficient. One solution could be to use part-time staff during peak periods. Alternatively, multi-skilling would enable staff to undertake different tasks depending on where demand was greatest. For example, in a supermarket staff could be trained to fill shelves but also work at the checkouts during busy periods.

One way of controlling supply and demand for services is through a reservation system. Not only can such a system be used to control peak demand, but it can also help an entity match supply with demand. For example, if a restaurant knows in advance that it is going to be booked on a certain evening, this will help the restaurant manager to ensure that there are sufficient waiting staff on duty that evening to ensure that the service runs smoothly.

4.2.5 Lack of ownership

One of the consequences of services being intangible is that a customer cannot own them. The purchase of a service typically confers the right to use something. For example, if a customer rents a car for the duration of their holiday, at the end of their holiday, they must return the car to the car hire company.

4.2.6 Critical moments of truth

One of the characteristics which distinguish service transactions from product sales or purchases are the 'moments of truth' between the customer and the firm (when the consumer comes into direct contact with the service provider).

These moments of truth are a consequence of the inseparable nature of services. However, the importance of them is that when a consumer and the person providing a service meet, the encounter between them might permanently shape the consumer's view of the firm.

Moments of truth can be:

- before the service is purchased, for example, enquiries and reservations
- before the service is actually consumed (eg, check-in procedures at airports)
- while the service is consumed (encounter with waiter at restaurant, quality of service on a train, assistance and information)
- after the service has been consumed (queries, staff saying 'goodbye', paying the bill if

payment is made after the service is consumed). The rise of e-commerce is leading to an increase in online credit card fraud. Card fraud could be seen as a moment of truth after the service has been consumed

Ultimately, customers decide what a moment of truth is. Some will be put off using a service provider by poor procedures in one aspect of the service, which could lead to any competitive advantage generated by other aspects of the marketing mix being undermined.

4.3 Coordinating the marketing mix

Although we can look at how individual elements of the marketing mix can be used to differentiate a firm's products from a rival's, we also need to remember that the different elements in the mix need to be coordinated such that they portray a consistent message to customers.

Each element of the marketing mix contributes to the total value proposition being offered to the customer. Therefore, all the elements of the mix need to be coherent and consistent, rather than conflicting with, or undermining, each other.

For example, if an organisation wants to position a product as a luxury or high-quality 'premium' brand, it should price the product accordingly (on the grounds that consumers assume they 'get what they pay for'). It should also ensure a matching quality image in its intermediaries or dealerships, and should select promotional media and messages along the same lines (advertising in upmarket media, and avoiding 'buy one, get one free' sales promotions).

Moreover, the way the firm relates to all its stakeholders needs to be coherent and consistent. For example, there is little merit in a firm marketing its products to customers on the basis of corporate social responsibility and ethics, if conflicting messages are given out by the firm's treatment of its suppliers, distributors or employees. The charity Oxfam, for example, had its credibility undermined when it was discovered that suppliers of its 'Make Poverty History' wristbands were themselves guilty of exploiting workers with minimal pay and poor working conditions.

The marketing mix and market segments

Marketing mix decisions must be taken with the needs of a range of market segments in mind. The product mix or product portfolio, for example, can be adapted to cover a range of stakeholder and customer needs. For example, Nestlé's range of coffee brands covers luxury, economy, fair-trade and health-conscious (decaffeinated) brands.

The distribution mix can similarly cover the needs of different regions, urban and rural lifestyles, and isolated or less mobile consumers (eg, internet buying and home delivery).

4.4 International marketing

In Strategic choice, we discussed international growth, globalisation and strategies for firms to expand internationally.

Once a firm has decided to expand internationally, it will then have to decide: **which** markets to enter; and **how** to enter those markets. Then it will also have to develop its marketing mix for the new markets:

Product – What products and services is it going to offer? (eg, the same product as it offers in existing markets, variants of those existing products, or new products)

Price – What price will it charge customers? (and what will its price strategy be? – eg, penetration pricing; price skimming?) What credit facilities will it offer?

Promotion – How will it promote, or create awareness of, its product in the marketplace?

Place – How will it bring its products or services to customers? What locations will it operate in, and in how many locations will it operate? What distribution channels will it use (eg, retailers; wholesalers; or selling directly to customers)? What distribution partners will it use? How can it create extra value by developing relationships with its customers?

4.4.1 Global marketing

In his text Global Marketing, Hollensen defines 'global marketing' as a firm's commitment to co-ordinating its marketing activities across boundaries in order to find and satisfy global customer needs better than the competition.

The objective of satisfying customer needs echoes the underlying definitions of marketing and the marketing concept which we discussed in section 1 of this chapter. However, the global (or international) context adds some additional complexity to a firm's marketing activities:

- Coordinating its marketing activities – This could involve standardisation in some cases, and local responsiveness in others. Similarly, a firm will need to decide whether to centralise its marketing operations or to delegate them locally.
- Find global customer needs – This involves carrying out international market research and analysing market segments, as well as seeking to understand similarities and differences in customer groups and customer needs across countries.
- Satisfy global customers – This involves adapting products, services and other elements of the marketing mix to satisfy different customer needs across different countries and regions.
- Being better than the competition – A firm will have to assess, monitor and respond to all its competitors by offering (as appropriate for its overall generic strategy) better value, higher quality, lower prices, superior distribution, great advertising strategies, or superior brand image.

Hollensen also provides a succinct summary of some of the difficulties associated with global marketing:

"The task of global marketing management is complex enough when the company operates in one foreign national market. It is much more complex when the company starts operations in several countries. Marketing programmes must, in these situations, adapt to the needs and preferences of customers that have different levels of purchasing power as well as different climates, languages and cultures. Moreover, patterns of competition and methods of doing business differ between nations and sometimes also within regions of the same nation."

4.4.2 Global marketing strategies

One of the key decisions managers have to make regarding their global marketing strategies is the degree to which they **standardise** their marketing mix or **adapt** it for different countries and regions.

Complete global standardisation could greatly increase the profitability of a company's products (through economies of scale) and simplify the task of the international marketing manager. However, adaptation enables an organisation to respond flexibly to local market conditions.

A standardised marketing strategy would require the elements of the 4 Ps to be unified into a common approach for different national or regional markets. It would also need to be supported by a standardised decision-making process for marketing planning across different countries; for example, standardising the launch of new products.

However, the extent to which standardisation is possible is controversial in marketing. Much of the decision-making in an international marketing manager's role is concerned with assessing the need – or the absence of a need – to adapt the product, price and communications to individual markets.

4.4.3 Standardisation or adaptation in international marketing mix

The following factors encourage standardisation:

- **economies of scale**
  - production
  - marketing/communications
  - R&D
  - inventory holding
- **easier management** and control (eg, inventory management)
- **homogeneity of markets**; that is, world markets available without adaptation (eg, denim jeans)
- **cultural insensitivity** (eg, industrial components and agricultural products)
- **consumer mobility** means that standardisation is expected in certain products (eg, hotel chains; memory cards for cameras)
- **a standardised concept** is used by competitors
- where 'made in' image is important to a **product's perceived** value (eg, France for perfume, Sheffield for stainless steel)
- for a firm **selling a small proportion** of its output overseas, the incremental adaptation costs may exceed the incremental sales value
- products that are positioned at the **high end of the spectrum in terms of price**, prestige and scarcity are more likely to have a standardised mix

Adaptation

Adaptation may be mandatory or discretionary.

Mandatory product modification normally involves either adaptation to comply with government requirements or unavoidable technical changes. An example of the former would be enhanced safety requirements, while the requirements imposed by different climatic conditions would be an example of the latter.

Discretionary modification is called for only to make the product more appealing in different markets. It results from differing customer needs, preferences and tastes. These differences become apparent from market research and analysis; and intermediary and customer feedback.

(a) Levels of customer purchasing power. Low incomes may make a cheap version of the product more attractive in some less developed economies.

(b) Levels of education and technical sophistication. Ease of use may be a crucial factor in decision- making.

(c) Standards of maintenance and repair facilities. Simpler, more robust versions may be needed.

(d) 'Culture-bound' products such as clothing, food and home decoration are more likely to have an adapted marketing mix.

Adaptation may also be necessary in order to help a firm satisfy customer needs more successfully than local competition, or than other international rivals if they have also adopted an adaptation strategy.

These strategies can be exercised at global and national level, depending on the type of product. Not all products are suitable for standardisation.

Context example: McDonald's

Even though McDonald's is often seen as a global brand, the menus in its restaurants are adapted to fit with local tastes and cultures. For example, in India, McDonald's menu is typically 50% vegetarian because the Hindu majority cannot eat beef dishes, and Muslims avoid pork.

Although marketing writers often discuss standardisation and adaptation as two distinct options, in practice few marketing mixes are totally standardised, or totally adapted. As such, it is often more relevant to discuss the degree to which elements of the mix can be standardised.

4.4.4 Globalisation, localisation or 'glocalisation'

The standardisation vs adaptation debate can also be viewed in terms of globalisation (standardisation) vs localisation (adaptation).

But, again, the two extremes of globalisation and localisation should not be seen as distinct options. Hollensen suggests that a global marketing strategy should aim to 'think globally but act locally' as a result of the dynamic interdependence between the corporate headquarters and local subsidiaries. As such, Hollensen suggests that the framework in which global marketing takes place could usefully be viewed as one of 'glocalisation.'

Glocalisation entails the development and selling of products or services intended for the global market, but adapted to suit local culture and behaviour. As such it allows marketers to benefit from the synergies of being both **global** (for example, benefitting from low-cost production due to economies of scale) and **local** (for example, being culturally close to consumers and responding to local customer needs) at the same time. For instance, the basic room dimensions and facilities in an international hotel chain may be standardised, however elements of local culture can be introduced through a local style of decoration or through the uniforms worn having a local influence.

Context example: Persil

The long-term vision of Henkel, the German-based consumer and industrial products company, is to become a global leader in brands and technologies. The company operates worldwide with leading brands in three business areas: laundry and home care, beauty care, and adhesive technologies. One of its best-known brands is Persil.

Henkel has identified that globalisation –grasping opportunities for growth around the world – will be an important element in helping it to achieve its vision. In turn, this globalisation will involve expanding its presence in emerging markets, and selectively entering new growth markets in which it does not yet have a foothold.

Persil Abaya is a liquid detergent that Henkel introduced to the Saudi Arabian market in 2007 and subsequently to the rest of the Gulf Cooperation Council states. Henkel markets the product as a detergent specialised for black abayas and dark clothing. The liquid detergent combines cleaning power with special colour protection for black and dark garments – which is particularly important if they are washed frequently. (The abaya is the predominantly black over-garment worn by most Arab women.)

While black is the traditional shade for women's clothing in the Africa/Middle East region, the popularity of black and dark clothing has also risen steadily in western European countries in recent years. Therefore, in June 2011, Persil Black was introduced in Germany, Austria and Switzerland, in response to the changes in fashion in those countries.

Persil Black and Persil Abaya provide a good example of how the mix of common global technology and scale (low-cost production) can be combined with local marketing. The two brands (Persil Black and Persil Abaya) have a similar product formulation, but each had different product packaging and marketing campaigns, tailored to its regional market.

Persil Abaya was launched in the Gulf States through a mix of television commercials and a viral online marketing campaign. Henkel also sponsored a reality TV designer competition, in order to show that the abaya had evolved from a traditional garment to an individual fashion statement. In the Western European markets, Henkel's marketing campaign for Persil Black relied mainly on traditional television advertising, complemented by social media activities, such as a game on Facebook.

Based on a case study in: Hollensen, S. (2014), *Global Marketing*, 6th edition, Pearson, Harlow www.henkel.com

4.5 The impact of the internet on the marketing mix

The internet has had a significant impact on the elements of the marketing mix, and companies need to recognise this when developing their marketing strategies, particularly strategies for online marketing.

4.5.1 Product

What does buying products online offer which offline purchasing cannot?

(a) The ability to deliver interactivity and more detailed information through the internet is the key to enhancing the augmented or extended product offering online.

(b) The buyer knows immediately about product features, the facts, not a sales person's interpretations.

(c) The buying process is customised for returning visitors, making repeat purchases easier. Organisations can also offer immediately ancillary products along with the main purchase. EasyJet, for example, can readily bundle its flights, hotels and car hire through suitable design of its website.

(d) The product can also be customised to consumers' needs. For example, Nike.com offers customised trainers to users online. Users can design and see their trainers online before they order.

4.5.2 Price

The internet has made **pricing very competitive**. Many costs such as store cost and staff salaries have disappeared completely for online stores, placing price pressures on traditional retailers.

(a) The internet increases customer knowledge through increased price transparency, since it becomes much quicker to shop around and compare quoted prices by visiting supplier web sites. In this respect, the use of price comparison sites by consumers is very important. Sites such as Kelkoo.com(or Kelkoo.co.uk in the UK) give a single location that empowers the consumer to quickly find out the best price from a range of suppliers for a range of products. Such easy access to information is likely to increase price competition between retailers, and ultimately increase the bargaining power of customers.

(b) Dynamic pricing gives retailers the ability to test prices or to offer differential pricing for different segments or in response to variations in demand. For some product areas, such as ticketing, it may be possible to dynamically alter prices in line with demand. Tickets.com adjusts concert ticket prices according to demand and has been able to achieve 45% more revenue per event as a result. As we noted in relation to service marketing, dynamic pricing is used widely in airline and hotel industries, but it is also increasingly used in restaurants; for example, by offering people a discount to eat at quieter times of the day, rather than at peak lunch time or evening services.

(c) Different types of pricing may be possible on the internet, particularly for digital, downloadable products. Software and music has traditionally been sold for a continuous right to use. The internet offers new options such as payment per use; rental at a fixed cost per month, or a lease arrangement. Bundling options may also be more possible.

(d) The growth of online auctions also helps consumers to dictate price. The online auction company eBay has grown in popularity, with thousands of buyers and sellers bidding daily.

(e) E-pricing can also easily reward loyal customers. Technology allows repeat visitors to be tracked, allowing loyalty incentives to be targeted towards them.

(f) Payment is also easy – PayPal or online credit cards allow for easy payments. However, the downside to this is internet fraud, which is growing rapidly around the world.

4.5.3 Place

The internet clearly has significant implications for '**place**' in the marketing mix, since it has a **global reach**, meaning that firms can now sell to a much wider geographical market than they have traditionally been able to.

As well as its global reach, the fact that it is 'open' 24 hours a day, 7 days a week (24/7) is a major impact the internet has had on marketing. Customers can search for, and buy, products at their own convenience, rather than being constrained by the opening hours of a traditional shop, for example.

Channel structures

The internet has also created new marketplaces and channel structures which affect the 'place' where online transactions take place. In some cases, the internet means that buyers and sellers interact directly, rather than going through an intermediary. For example, rather than booking a holiday through a travel agent, customers can now go directly to hotel websites or airline websites and book their accommodation and flights themselves. Alternatively, however, customers could use online travel websites (such as Expedia) to book their holidays from a range of options that the website has sourced from flight and hotel reservation systems.

For many companies, the notion of 'place' in the marketing mix is also linked to the supply chain (or value chain). For example, 'place' is closely related to the distribution and delivery of products or services.

The internet has had a major impact on this aspect of the marketing mix. As well as reducing the need for physical stores from which to sell their products, companies are looking to differentiate themselves from their rivals on the basis of the speed and efficiency of their deliveries. Moreover, many companies no longer 'supply' the goods to their end customers; instead, the companies contract with third-party providers such as Fedex and UPS, which have superior logistical expertise and economies of scale in distribution.

4.54 Promotion

Marketing communications are used to inform customers and other stakeholders about an organisation and its products.

(a) There are new ways of applying each of the elements of the communications mix (advertising, sales promotions, PR and direct marketing), using the internet and email. Most organisations today have some form of web page used in most, if not all, advertisements.

(b) The internet can be used at different stages of the buying process. For instance, the main role of the web is often in providing further information, rather than completing the sale. Think of a new car purchase. Many consumers will now review models online, but most still buy in the real world.

(We will look at social media in more detail later in the chapter, but social media can be an important source for potential customers to gauge other customers' feedback on a product or service, not just the 'official' promotional material from the seller.)

(c) Promotional tools may be used to assist in different stages of customer relationship management, from customer acquisition to retention. In a web context, this includes gaining initial visitors to the site and gaining repeat visits using, for example, direct email reminders of site proposition and new offers.

One of the tactics which companies have used to manage, and build, brands effectively in the internet era, is to increase their links with customers and enter into dialogue with them about products and services. The benefit of this two-way relationship is that, as well as providing customers with information about their products, it enables companies to collect information about their customers which can then be analysed – for example, through data mining.

In this way, the internet encourages marketing that is based on direct, personalised relationships with customers – 'relationship marketing'.

(d) Targeted marketing – The internet can enable companies to have direct access to individual customers and, in turn, this allows companies to collect more detailed information about their customers. This should help companies to be able to target their marketing more precisely, and introduce products or services which better meet customers' needs.

(e) The internet can be integrated into campaigns. For example, we are currently seeing many direct response print and TV ad campaigns where the web is used to manage entry into a prize draw and to profile the entrant for future communications.

Promotion activity	Impact/opportunity	Examples of supporting technology
Advertising	Reach more customers worldwide Target audiences more specifically Increase response via interactivity	Websites and ads Specialist TV channels Direct response TV, SMS text messaging
Sales promotion	Target segment/individual interests and preferences Facilitate/motivate response Online discounts (lower admin costs)	Customer databases, EPOS data Online entry/coupons Online transaction

Direct marketing	Personalised, one to one messages Permission-based database/contacts to enhance response rate Speed and interactivity of response Direct response/transaction	Database Email, website, SMS requests for info Email and website links E-commerce sites
PR and publicity	Speed of information dissemination and response to crisis/issues	Email media releases and online information
Marketing/sales support	Publicising sponsorships Publicising exhibition attendance Up-to-date information for sales force and call centre staff	Website Website/email clients Access to product/inventory and customer database
Internal marketing	Staff access to information relevant to their jobs Coordination/identification of dispersed offices and off-site staff	Intranet newsletters, bulletins, policy info Email, tele- and video-conferencing; Skype
Network marketing	Supplier/client access to information relevant to business relationship	Extranet: access to selected information

4.5.5 People

An important consideration for the people element of the mix is the consideration of the tactics by which people can be replaced or automated.

(a) Autoresponders automatically generate a response when a customer emails an organisation, or submits an online form.

(b) Email notification may be automatically generated by a company's systems to update customers on the progress of their orders. Such notifications might show, for example, three stages: order received; item now in stock; order dispatched.

(c) Call-back facility requires that customers fill in their phone number on a form and specify a convenient time to be contacted. Dialling from a representative in the call centre occurs automatically at the appointed time and the company pays.

(d) Frequently asked questions (FAQs) can pre-empt enquiries. The art lies in compiling and categorising the questions so customers can easily find both the question, and a helpful answer.

(e) On-site search engines help customers find what they are looking for quickly. Site maps are a related feature.

(f) Virtual assistants come in varying degrees of sophistication and usually help to guide the customer through a maze of choices.

4.5.6 Process

The **process** element of the marketing mix refers to the internal methods and procedures companies use to achieve all marketing functions, such as new product development, promotion, sales and customer service. The restructuring of the organisation and channel structures described for product, price, place and promotion all require new **processes**.

4.5.7 Physical evidence

The physical evidence element of the marketing mix is the tangible expression of a product and how it is purchased and used. In an online context, physical evidence is **customers' experience of the company through the website** and associated support. It includes issues such as ease of use, navigation, availability and performance. Responsiveness to email enquiries is a key aspect of performance. The process must be able to give an acceptable response within the notified service standards, such as 24 hours.

4.6 Reinforcing the importance of the customer

Customer-centric process – At an overall level, the internet increases the amount of control customers have over the marketing process. In particular, as a result of the internet reducing search costs to almost zero, consumers will increasingly only buy products which precisely match their needs.

This increased importance of the customer reinforces the need to place the customer (rather than the supplier's product or service) at the centre of the marketing relationship.

As a result of this, in some texts, the 4Ps of the traditional marketing mix have been renamed the 4Cs:

- **product** becomes customer value
- **price** becomes customer cost
- **place** becomes customer convenience
- **promotion** becomes customer communication

5 Databases and digital marketing

Section overview

- The availability of information and knowledge about customers can help organisations manage their marketing campaigns more effectively. Database marketing illustrates how organisations can use databases to assist with the direct marketing of products.
- The increasing importance of data means that organisations need to hold and manage ever- increasing amounts of data (about sales, revenues, customers, competitors etc). Data warehousing, data mining, and analytics can help organisations manage and use this data.
- The way firms manage (and use) data about their customers, and how effectively firms manage their relationships with customers, is becoming increasingly important in the context of relationship marketing.
- Web 2.0 technologies and social media (such as blogs, Facebook and Twitter) provide new channels for companies to publish information about their products and services. Perhaps more importantly, they also provide new ways for companies to interact with their customers, and hence develop their relationships with those customers.

Brought forward knowledge

The concept of relationship marketing has been discussed in the Business Strategy and Technology syllabus at Professional Level, along with the differences between relationship marketing and transactions marketing.

For many companies, approximately 80% of their sales come from 20% of their customers. This highlights how important it is for companies to retain their existing high-volume and highly profitable customers, as well as those with strong potential to become high-volume, high-profit customers in the future.

This emphasis on **customer retention** has led to an increasing focus on customer relationship management. Sales and marketing staff should no longer be looking solely to make a one-off sale, but to create a long-term relationship, which is mutually beneficial for the company and the customer.

Relationship marketing is the use of marketing resources to maintain and develop a firm's **existing customers**, rather than using marketing resources solely to attract new customers.

Firms can implement their relationship marketing strategy through effective **customer relationship management**.

At a tactical level, relationship marketing also needs to be supported by database marketing.

Definition

Database marketing: An interactive approach which builds a database of all communications and interactions with customers (and other stakeholders) and then uses individually addressable marketing media and channels to contact them further (for promotional messages, help and support, or any other relationship-building contacts). Customer data held in computerised databases can be interrogated and manipulated in various ways, through the process of data mining.

Definition

Data mining: The process of sorting through data to identify patterns and relationships between different items. Data mining software, using statistical algorithms to discover correlations and patterns, is frequently used on large databases. In essence, it is the process of turning raw data into useful information.

5.1 Database marketing

Database marketing techniques can be used for a range of relationship marketing projects, including:

- Identifying the most profitable customers, using RFM analysis (Recency of the latest purchase, Frequency of purchases and Monetary value of all purchases).
- Developing new customers (for example, by collecting data on prospects, leads and referrals.)
- Tailoring messages and offerings, based on customers' purchase profiles. (Actual customer buying preferences and patterns are a much more reliable guide to their future behaviour than market research, which gathers their 'stated' preferences.)
- Personalising customer service, by providing service staff with relevant customer details.

- Eliminating conflicting or confusing communications: presenting a coherent image over time to individual customers. In this respect, it is important to differentiate the message to different customer groups. (For example, companies must avoid sending 'Dear first-time customer' messages to longstanding customers!)

5.2 Databases and new customers

An organisation's customer database (and database of potential customers) represents a major source of trade. The company can use it to generate repeat business, or to stimulate new business.

When advertising, companies don't target only new customers, but also the existing ones they already have listed in their databases. **Keeping contact with existing customers** not only is a crucial way to generate repeat business, but it also helps companies promote new products to the right people – the people who would be most interested in buying them.

Obtaining **names of potential new customers** is now quite easy, because there are companies who specialise in selling the information of individuals who wish to be contacted by relevant businesses.

However, there is a cost involved in this method, which is why it is also important for organisations to keep records of all the potential customers they come into contact with so that they can build up their own database.

Ultimately, the **aim of marketing databases is to generate revenues**, so the more information organisations can hold about customers and potential customers, the better. The more the organisation knows about potential customers, the greater the chance it should have of targeting the right people in a marketing campaign.

In an effort to **target potential customers more effectively**, organisations can use database marketing to build models of their target demographic group. These models then allow them to focus their advertising budgets on these target groups, in the hope that this will result in an improved return on investment (ROI) on their advertising spend.

Information gathering is therefore an important process, and organisations need to attract potential customers who are willing to divulge information about themselves. Offering prizes or promotional campaigns through newsletters or 'e-zines' can help achieve this.

If **records are stored and organised effectively**, an organisation should be able to implement new marketing strategies and (targeted) campaigns more quickly and easily. For example, by grouping individuals together according to shared characteristics (age, income, gender etc) organisations can generate targeted mailing lists of potential customers who share a set of desired characteristics.

Moreover, having a comprehensive database can also **help with forecasting**. Future trends for sales and marketing can be modelled based on the results of previous projects. By studying the past purchases of consumers, analytical software allows data analysts to predict broad trends in purchasing habits, which can give an insight into customers' future purchasing behaviour.

However, it is important that organisations keep their database **up-to-date, and well organised**. Having outdated or invalid entries could cause confusion and waste time. For example, there is no point in trying to contact business customers who have gone out of business.

There is also an **ethical/legal dimension** to consider when managing databases. Often, unsolicited calls do not generate any business and can be annoying for the recipient. But more importantly, companies need to ensure their databases comply with the law. In the UK, data must be kept up to date, relevant, and only used for the purpose the customer intended or can reasonably expect it to be used for.

Data warehouses and data mining

We will look at the way organisations can store and manage data in more detail in Information strategy. However, effective data management is becoming increasingly important to sustaining an organisation's competitive advantage as the volume and variety of the data available increases.

5.2.1 Big data and marketing

We will look more at these aspects of the volume and variety in the context of **big data**, in Data analysis. One of the ways organisations use big data and big data analytics (for example, through store loyalty cards) is to personalise the marketing messages and offers they send to customers. We talked earlier about 'target marketing'– and the insights organisations can gain from big data will enable them to target their marketing strategies more precisely than ever before. (These aspects of targeting and individualisation are important characteristics of digital marketing – which we look at later in the chapter. As such, the way an organisation uses big data could influence the success of its digital marketing.)

Another key development has been real-time data visualisation technologies (eg, dashboards) which enable managers to adjust tactics based on live data feeds. For example, sales managers are able to adjust pricing based on live sales, and inventory, data.

Customer data has always been important for marketers, for example point of sales transaction data, response rates to promotional campaigns, or coupon redemption. Crucially though, big data significantly increases the volume and variety of customer data available to marketers – for example, online purchase data, click-through rates and browsing behaviour on websites, and social media interactions.

It is important that organisations recognise that simply having big data doesn't automatically give them a marketing advantage, or a competitive advantage, over their competitors. Instead, it is the insights organisations gain from the data, and the decisions they make based on that data which make the difference. However, if organisations use big data effectively, within their overall marketing strategies, it could benefit them in three key areas:

- **Customer engagement**. Big data can provide insight into not only who an organisation's customers are, but where they are, what they want, how they want to be contacted and when.
- **Customer retention and loyalty**. Big data can help organisations identify what factors influence customer loyalty, and what encourages them (or discourages them) to continue to purchase from an organisation.
- **Marketing optimisation**. Big data, and analytics derived from it, can help organisations determine their optimal marketing spend across different channels. Analytics can also help organisations measure, in detail, the impact of marketing programmes.

Interactive question 5: Analytics and marketing information

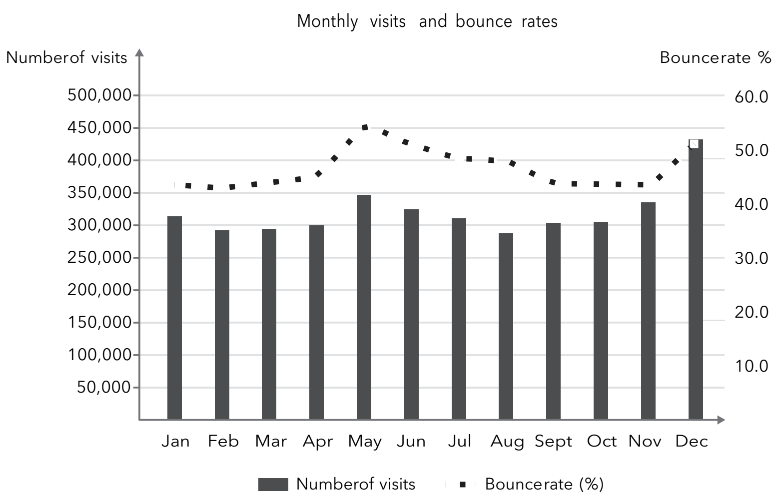
Klebo is an online retailer. Its website provides potential customers with information about all of its products, as well as providing a secure purchase area where customers can order and pay for products.

Klebo uses an analytics software to capture data from its website and analyse information for management. The software produces large volumes of granular data, which can be analysed in different ways to produce management information, in line with performance indicators management want to measure.

The dashboard below shows one configuration of the data.

Data dashboard – Year ended 31 December 20X7

Number of visits	3,850,624	Revenue (£)	24,010,605
Number of unique visitors	513,416	Transactions	497,526
Number of page views	14,269,827	Average transac-tionvalue (£)	48.26
Bounce rate	47%	Unique purchases	728,406
Checkout aban-donment rate	35%		



Notes

1 If the same user visits the site on two different occasions, this would be recorded as: two visits; one unique visitor.

2 Bounce rate indicates the number of visits in which a visitor lands on the website and then leaves without clicking to any other pages on it (eg, without looking at any specific product pages).

3 Checkout abandonment rate indicates the number of visitors who enter the secure purchase area but leave without completing their payment.

4 The number of unique purchases indicates the number of products sold. So, if a customer bought two products in one visit, this would be recorded as one transaction but two unique purchases.

5 Klebo ran advertising campaigns in May and November 20X7.

Requirement

Analyse the information provided in Klebo's website dashboard, and explain how it may be used to support the company's marketing activities. Identify further information that could usefully be extracted from the data captured.

See **Answer** at the end of this chapter.

5.3 Customer relationship management (CRM)

Definition

Customer relationship management (CRM): The use of database technology and ICT systems to help an organisation develop, maintain and optimise long-term, mutually valuable relationships between the organisation and its customers.

CRM is a more comprehensive approach to the use of database technology, designed to:

- enable marketers to predict and manage customer behaviour, by allowing them to learn and analyse what customers value (eg, about products, services, customer service and web experiences)
- segment customers based on their relative profitability or lifetime value to the organisation
- enhance customer satisfaction and retention by facilitating seamless, coherent and consistent customer service across the full range of communication channels and multiple points of contact between the customer and the organisation

A CRM system involves a comprehensive database that can be accessed from any of the points of contact with the customer, including website contacts, field sales teams, call centres and order processing functions. Information can be accessed and updated from any point, so that participants in customer-facing processes – sales, customer service, marketing, accounts receivable and so on – can coordinate their efforts and give consistent, coherent messages to the customer.

Information can also be analysed (through datamining, or using data analytics) to determine profitability, purchasing trends, web browsing patterns and so on.

Note: In Strategic choice we identified how machine learning can help websites recommend items a customer might want to buy based on their previous purchases and buying history. This ability to 'personalise' a consumer's shopping experience can also help to support the relationship between an organisation and its customers.

5.3.1 Customer loyalty programmes

Customer loyalty or reward programmes are specifically designed to incentivise and reward loyal behaviour such as repeat purchases, escalating purchases and recommendations and referrals. They include schemes such as Air Miles, various retail discount/rebate/bonus/dividend cards (for example, Nectar cards and store loyalty cards) and voucher schemes.

Context example: Tesco Clubcard

By rewarding registered customers with 'points' when they make purchases using their Clubcard, Tesco rewards customers for their loyalty. However, at the same time, the Clubcard programme provides Tesco with insights from millions of customer transactions.

From this, Tesco can develop tailored ranges, promotions and marketing by country or region. Perhaps even more valuably, Tesco can tailor its marketing, right down to individual customers, via its Clubcard mailings.

Loyalty card programmes (such as Tesco's Clubcard) are also linked to data warehouses, and the data stored in them can be analysed to provide retailers with valuable information about individual customers' spending patterns. This information enables retailers to send personalised marketing messages to customers with offers relating to products which they have bought previously or may be likely to buy in the future.

5.3.2 The need for CRM

There are several reasons why CRM is an important consideration:

(a) Customers are now inherently more willing to switch suppliers and are less likely to be loyal to a specific company or brand than they have been in the past. (The internet has had an impact on customer loyalty. For example, price comparison websites may reduce customer loyalty if customers see that an alternative supplier offers a product or service more cheaply than their current provider. However, by developing a relationship with its customers, an organisation will move away from competition based on price alone.)

(b) It is cheaper to focus on retaining existing customers than to have to attract new ones. Attracting new customers is expensive, due to low initial prices or promotional expenses, for instance.

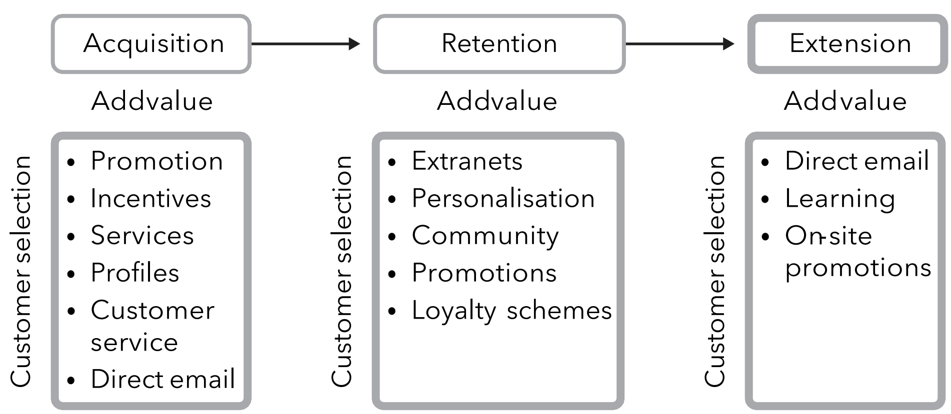
(c) In mature markets, existing customers provide the most likely source of future earnings because there is little scope to attract 'new' customers, given the low growth rate in the market overall.

(d) Strategies to widen the range of products available would make no sense if existing customers could not be retained.

5.3.3 Phases of CRM

Chaffey outlines three phases of CRM (particularly in relation to e-business and e-commerce management):customer acquisition, retention and extension.

Figure 5.3: Chaffey's three phases of customer relationship management



Customer acquisition refers to marketing activities to form relationships with new customers.

Customer retention refers to the marketing activities undertaken to retain existing customers. Identifying relevant offerings based on customers' needs is key to this.

Customer extension involves increasing the range and number of products and services that loyal customers purchase from an organisation, for example, by through cross-selling or up-selling.

Links to customer profitability analysis As the definition of CRM earlier in this section highlights, the aim of CRM is to develop **mutually valuable relationships** between an organisation and its customers. From the organisation's perspective, the relative 'value' of different customers, or groups of customers, will depend on how profitable they are over their customer lifecycle.

Therefore, alongside CRM, organisations should also be monitoring customer profitability, because it will not be beneficial for an organisation to invest in, and develop, relationships with unprofitable customers.

Interactive question 6: Customer profitability

SportyTech (ST) is a company that supplies high specification parts which major international motor manufacturers use in the higher performance versions of their road cars. ST produces a standard range of high-performance parts, including brake sets, turbos and other engine components, that can be customised to suit the requirements of a particular car, if required.

Total turnover for the coming financial year is forecast to be £135 million.

The standard pricing policy of ST is based on a simple calculation that delivers a gross profit of 18% excluding any discounts awarded or refunds for faulty goods (ie, a part which costs £492 to make would be priced at £600). Faulty goods returned have to be replaced, with the returns scrapped and no resale or scrap value achieved.

ST has a fairly stable business, underpinned by three major customers, but has become increasingly concerned as it has seen its profitability decline.

In response to this, the company paid a management consultant £150,000 for advice on how to arrest this decline in profitability. The main finding of the consultant's report was that the cost of servicing the major customers is much higher than ST had realised.

The recommendation of the report was to either cease to supply these customers or, preferably, to persuade them to reduce the incidence of cost-generating activities (see below).

Extracts from the consultant's report:

	A	B	C	D
1	**Forecast for coming** financial**year**			
2		**FMC**	**GMC**	**HMC**
3	Sales revenues £m (beforediscounts/ returns)	28	14	17
4	Average discountgiven	8%	7%	5%
5	Sales visits made	12	10	14
6	Purchase ordersprocessed	48	57	46
7	Customisationsrequested	5	7	33
8	Faulty productsreturned (% of sales made)	2.1	1.8	3.3
9	**Cost-generating activities**	**Cost (£)**		
10	Making a sales visit	750		
11	Processing a purchase order	175		
12	Design and tooling acustomised part	26,175		

Requirement

Calculate the forecast net customer account profitability of each of the three major customers of ST.

See **Answer** at the end of this chapter.

Customer lifecycle value

Customer lifecycle value (CLV) is the present value of the future cash flows attributed to the lifecycle of an organisation's relationship with a customer.

In theory, CLV shows how much each customer is worth to an organisation, and therefore indicates how much the organisation should be prepared to spend on acquiring and retaining that customer. For example, it is not worth an organisation offering promotions and incentives whose value is greater than the customer's lifecycle value to that organisation.

In practice, firms have to make two key assumptions in order to calculate CLV:

(a) **Churn rate**: The percentage of customers that end their relationship with the organisation in any given period. Organisations tend to assume that churn rate remains constant, but if, for example, churn rate turns out to be lower than this assumed level, CLV should be higher than anticipated.

(b) **Retention cost**: The amount of time and money the company has to spend in order to retain an existing customer, for example, through customer service, special offers and other promotional incentives.

Any attempt to estimate lifecycle costs and revenues also needs to consider existing and potential environmental impacts, however, including the likely actions of competitors and the potential for product and process innovation.

These external factors increase the degree of uncertainty in any customer value calculations over the longer term. For example, what is the probability of retaining customers in the future if competitors introduce new products? Or what is the probability that customers will buy additional products in the future if the company develops alternative new products which satisfy the same needs?

5.4 CRM strategies

A number of strategies can be implemented in relation to CRM, to develop customer loyalty towards an organisation.

Strategy	CRM implications	Examples
Develop appropriate staff incentive schemes	Encourages staff to work harder to retain existing customers	Reward staff based on customer satisfaction and feedback, rather than number of new customers attracted
Provide consistent standards	Customers more likely to return if they receive consistently good service Familiarity with good staff encourages loyalty	Implement measures to reduce staff turnover
Obtain senior management buy- in	If senior management prioritise staff retention, staff will too	Build customer retention into the organisational strategy Develop a customer-focused approach at all levels in the organisation

Strategy	CRM implications	Examples
Monitor customer relationships and act appropriately	By understanding the behaviour of customers, improvements to secure their loyalty can be made	Establish regular contact with customers Assess customer satisfaction and loyalty Determine reasons for loss of a customer Address reasons to prevent future loss of custom
Obtain detailed customer information	Allows the firm to: • identify customer needs • develop improved ways of meeting those needs • specifically target customers and bring relevant new products or services to their attention	Customer loyalty/reward cards can provide invaluable information about the buying habits and patterns of customers
Develop specific loyalty-focused strategies	Directly encourages the customer to return	Introduce loyalty cards Appoint dedicated account managers for key customers
Implement procedures to monitor and influence all aspects of the customer relationship	Provides the customers with a good experience of the company encouraging them to be loyal Monitors the success of the relationship allowing weak areas to be identified and improved	Total quality management
Implement systems that can support CRM	Provides high level of information to the firm, allowing better understanding of the relationship. This in turn helps understand how it can be improved	Analytical customer databases Automated sales management systems Systems to track customer spending and profitability

5.5 Digital marketing and the application of social media

Definitions

Digital marketing: involves the application of the technologies which form online channels – such as the internet, email, smartphones, tablets, digital televisions and games consoles – to achieve marketing objectives.

E-marketing: is the application of electronic communication technologies – such as the internet, smartphones, tablets and digital televisions to achieve marketing objectives.

Note: Although the title of this section refers to digital marketing, you could equally see references to electronic marketing or e-marketing. Both terms refer to the way electronic communication technologies can be used to accomplish marketing objectives, and so could be used interchangeably as the definitions above illustrate.

Kotler et al in Principles of Marketing provide a useful summary of how changes in communication technology have given rise to the growth of digital marketing:

"Advances in communications technology are causing remarkable changes in the ways in which companies and customers communicate with each other. The digital age has spawned a host of new information and communication tools – from smartphones and iPods to satellite and cable television systems to the many faces of the internet (e-mail, social networks, blogs, brand websites and so on). These new digital media have given birth to a new marketing communications model.

"Although television, magazines, newspapers and other mass media remain very important, their dominance is declining. In their place, advertisers are now adding a broad selection of more- specialised and highly targeted media to reach smaller customer segments with more personalised, interactive messages. The new media range from speciality cable television channels and made-for-the-Web videos to internet catalogues, e-mail, blogs, mobile phone content and online social networks. In all, companies are doing less broadcasting and more narrowcasting."

Marketing objectives include identifying, anticipating and satisfying customer requirements profitably. Digital technologies are relevant to these objectives as follows:

- **Identifying** – Using the internet to find out customers' needs and wants.
- **Anticipating** – The demand for digital services.
- **Satisfying** – Achieving customer satisfaction raises issues over whether the site is easy to use, whether it performs adequately and how the physical products are dispatched.

Essentially, digital marketing means using digital technologies to help sell goods or services. The basics of marketing remain the same – creating a strategy to deliver the right messages to the right people. What has changed is the number of options available. These include pay per click advertising, banner ads, email marketing and affiliate marketing, interactive advertising, search engine marketing (including search engine optimisation (SEO)) and blog marketing.

Though businesses will continue to make use of traditional marketing methods, such as press and television advertising, direct mail and PR, digital marketing adds a whole new element to the marketing mix and is a valuable complement, as the extract from Kotler et al illustrates. Digital marketing gives businesses of any size access to the mass market at an affordable price and, unlike TV or print advertising, it allows truly **personalised marketing**.

5.5.1 Push vs pull marketing

Another consequence of the emergence of digital technologies has been an increase in 'pull' marketing strategies compared to traditional 'push' marketing strategies.

Push strategies – An organisation transmits messages about its products or services to prospective customers, to try to ensure those customers are aware of the product. However, as such, the customer is only a **recipient of the information** – as for example, when they see a banner advert on a website.

Pull strategies – By contrast, pull marketing seeks to draw potential customers towards a company, and to encourage the customer to find out more about that company. In pull marketing, the customer has an active role to play in **seeking out information**. For example, a blog posting by a company could encourage potential customers to search for more information about it and its products. Similarly, a number of companies now have a social media presence (eg, Facebook pages), which aims to enhance customers' experiences of interacting with their brands.

5.5.2 Key marketing functions the internet can perform

(a) **Creating company and product awareness** – Communicating essential information about the company and its brands (eg, online advertising; webinars; blogs). Such information may have a financial orientation to help attract potential investors, or it may focus on the unique features and benefits of its product lines.

(b) **Branding** – With the amount of advertising being devoted to the internet increasing each year, the frequency of visits to a site will also increase. Consequently, a company's website will play a more prominent role in building its brand image. Online communications should therefore be similar in appearance and style to communications in the traditional media so as to present a consistent brand image. Similarly, any dealings a customer has with the online brand should be consistent in terms of positioning with the traditional (offline) brand.

(c) **Offering incentives** – Many sites offer discounts for purchasing online. Electronic coupons, bonus offers and contests are now quite common. Such offers are intended to stimulate immediate purchase before a visitor leaves a website, and also to encourage repeat visits.

(d) **Lead generation** – The internet is an interactive medium. Visitors to a site provide useful information about themselves when they fill in boxes requesting more information from a company (eg, name, address, telephone number and email address). A site may also ask for demographic information that can be added to the company's database. This information is retained for future mailings about similar offers, or they can be turned over to a sales force for follow-up if it is a business-to-business marketing situation.

(e) **Customer service** – In any form of marketing, customer service is important. Satisfied customers hold positive attitudes about a company and are therefore more likely to return to buy more goods. Customer service is often perceived as a weak link in internet marketing. Customers are concerned about who they should call for technical assistance or what process to follow, should goods need to be returned.

Some customer service tactics commonly used include FAQs and return email systems. However, if a potential customer registers interest on a company's website and asks to be contacted, if the company does not respond to that request, the potential customer may take their business elsewhere.

(f) **Email databases** – Organisations retain visitor information in a database. Emailing useful and relevant information to prospective and existing customers helps build stronger relationships. However, an organisation must be careful that it does not distribute spam (unsolicited/unwanted email) on the internet, and it must ensure it complies with relevant legislation around collecting and processing personal data (eg, GDPR legislation in the EU).

(g) **Online transactions** – Organisations are capable of selling online if the website is user friendly. The ability to sell online could potentially be the most important benefit the internet provides for a company. However, if a company website is hard to navigate, and it proves difficult for customers to make a purchase online, this will reduce the company's ability to generate online sales.

Websites and online ordering also enable organisations in the supply chain to link together to achieve efficiencies in business to business (B2B) transactions. The ability to track and monitor orders via an extranet can also be valuable (particularly for B2B customers), so websites which provide this facility could play a part in customer retention.

Note: As well as providing a means for organisations to communicate with customers and potential customers, the internet – and social media – can also provide a valuable source of **customer insight and analysis**. For example, by analysing the comments and feedback customers are giving about it on social media, an organisation can identify areas it is performing well, and ones where it needs to improve its performance.

Technology and website designs

Developments in technology mean that companies have to continuously monitor the media through which they interact with potential customers.

'User experience' is very important for customers. Since potential customers no longer only access websites from PCs, but also from tablet computers or smartphones, they are likely to expect a user experience built around these different devices. Therefore, a well-designed 'app' or a web page designed for the screen size of the device it is being accessed from could help enhance a mobile user's impression of a company.

5.5.3 Specific benefits of digital marketing

(a) **Global reach** – A website can reach anyone in the world who has internet access. This allows organisations to find new markets and compete globally with only a small investment required.

(b) **Lower cost** – A properly planned and effectively targeted digital marketing campaign can reach the right customers at a much lower cost than traditional marketing methods.

(c) **The ability to track and measure results** – Marketing by email or banner advertising makes it easier for companies to establish how effective their campaigns have been. You can obtain detailed information about customers' responses to your advertising.

(d) **24-hour marketing** – With a website customers can find out about a company's products even if its physical shops or offices are closed.

(e) **Personalisation** – If the customer database is linked to the website, then whenever someone visits the site, they can be greeted with targeted offers. The more they buy from an organisation, the more the organisation can refine the customer profile and market effectively to them.

(f) **One to one marketing** – Digital marketing helps to reach people who want to know about the products and services instantly. For example, many people take their smartphones, tablets or Blackberry hand-held devices with them wherever they go. If they combine this instant communication with the personalised aspect of digital marketing, companies can create very powerful, targeted campaigns.

(g) **More interesting campaigns** – Digital marketing helps to create interactive campaigns using music, graphics and videos. For example, sending customers a game or quiz – whatever will interest them.

(h) **Better conversion rate** – Customers are only ever a few clicks away from completing a purchase. In contrast to other media which require people to get up and make a phone call, post a letter or go to a shop, digital marketing is seamless.

Together, all these aspects of digital marketing have the potential to add up to more sales.

As a component of e-commerce it can include information management; public relations; customer service; and sales.

However, in order for it to be effective, it is important that an organisation's digital marketing is consistent with its overall marketing goals and its existing marketing mix and marketing communications.

Equally, the key strategic decisions for digital marketing are common with strategic decisions for traditional marketing. These involve identifying target customer groups and deciding how to deliver value to those groups. Segmentation, targeting, differentiation and positioning are all key elements in effective digital marketing, just as they are in traditional marketing.

5.6 Characteristics of e-marketing

The six 'I' characteristics of e-marketing, developed by McDonald and Wilson, summarise the ways in which the internet can add customer value and improve an organisation's marketing effectiveness:

- **independence of location**
- **industry structure**

- **integration**
- **interactivity**
- **individualisation**
- **intelligence**

By considering and questioning each of these aspects of e-marketing, marketing managers can develop plans to accommodate them.

Independence of location	Do you exploit any opportunities to deliver information-based products and services electronically? Electronic media gives the possibility of communicating globally – giving opportunities of selling into markets that may not have been previously accessible.
Industry structure	Industry restructuring includes the following: • redesigning business processes (for example, distribution and logistics arrangements in the value system) • redrawing the market map in the form of new market segments or increasing the marketing boundaries • adopting IT enabled services
Integration	Do you have detailed knowledge of individual customers, influencers or consumers? Do you share this knowledge across all customer-facing parts of the business? Advertising products/services on the web is relatively easy. It is more difficult, but absolutely crucial, to gather vital customer information, obtain customer feedback, use existing knowledge about the customer and exploit the web's interactive nature to add value through product configuration, online pricing and so on.
Interactivity	Do you use interactive media to allow your customers to communicate with you? Do you listen to what they say and respond appropriately in a continuing dialogue? Traditional media are mainly 'push' media –the marketing message is broadcast from company to customer – with limited interaction. On the internet it is usually a customer who seeks information on a website – it is a 'pull' mechanism. The growing use of carefully targeted direct mail as a means of communicating with individual customers has led some to call this 'the age of addressability'.
Individualisation	Do you use your customer knowledge to tailor products and services to the needs of particular individuals or segments? Do you tailor all your communications to the characteristics of the recipients? Communications can be tailored to the individual, unlike traditional media where the same message is broadcast to everyone.
Intelligence	Do you inform your marketing strategy with intelligence gleaned from your operational systems at the customer interface, for example through analysis of customer needs, segmentation, prioritising segments according to customer lifetime value etc? The internet can be used as a low-cost method of collecting marketing information about customer perceptions of products and services. The website also records information every time a user clicks on a link. Log file analysers will identify the type of promotions or products customers are responding to, and how patterns vary over time.

Professional skills focus: Assimilating and using information

When advising on how the internet could be used to improve an organisation's marketing effectiveness you can use the 6Is framework to structure your analysis. It is important to recognise that descriptions of the framework are not valid at Advanced level and instead you should use relevant elements of the 6Is to suggest creative and pragmatic solutions to improve e-marketing.

Context example: Amazon

One of the best-known examples of electronic commerce – Amazon – illustrates how the internet can be used for an interactive dialogue with customers; for example, in relation to buying a book online.

The Amazon.com website enables the customer to search for books on particular topics, and read reviews of them placed by other customers. The website also allows the customer to track the status of their order once it has been placed.

Additionally, if the customer has used the website before, Amazon uses the history of their past purchases to make recommendations for other similar items that it thinks will be of interest to the customer.

5.6.1 Digital marketing and CRM

Earlier in this chapter, we discussed the concept of CRM, and the three elements of customer acquisition, retention and extension.

The internet and online techniques can play an important role in these, perhaps most extensively in relation to customer acquisition.

The internet offers a number of methods for **acquiring customers**:

Search engines – Search engines (such as Google) mean that when users search for relevant key words or phrases, links to the company's website will appear in their search results. In turn, **SEO** can be used as a technique for improving the company's position in the search engine listings.

Pay per click (or cost per click) advertising – Companies can pay other websites to display a banner on their website, with the hope that potential customers will click on the banner, which then links through to the company's own website.

Affiliate marketing – A company rewards affiliates for each visitor or customer who comes to the company's website through the affiliate's own marketing efforts. Amazon is probably the best-known example of an affiliate network; with an extensive range of sites directing customers to Amazon to buy books or music tracks that the affiliates have mentioned on their web pages.

Comparison sites – Comparison sites (such as www.moneysupermarket.com) allow potential customers to compare the price and features of different products, and if a product compares favourably to competitor products, this should encourage potential customers to buy it.

Viral marketing – Social networks are used to increase brand awareness, for example through video clips or images being passed from one user to another. A marketer creates the initial promotion (eg, a video clip) but then relies on people to distribute it voluntarily across their social network.

Therefore, marketers need to make the promotion appeal to the people who have the highest propensity to pass it on.

Business blogs – Companies can use blogs to showcase the knowledge and expertise of their employees, thereby hopefully attracting new customers. Blog marketing follows a similar logic to viral marketing. If a business can get itself or its products mentioned on different blogs, that will help generate interest among prospective customers. However, it is important that marketers concentrate their efforts on blogs covering topics which are relevant to their product or service offering.

Retention

The internet can also be useful for helping to **retain customers**, for example through the use of **personalised reminder emails**, possibly with discount codes or other incentives, to customers who have not made any purchases recently.

Online communities – The creation of online communities and forums could also help retain customers' interest in a product or service. However, these forums can also have an additional benefit for companies. By reading customers' feedback and comments, businesses can improve their

understanding of customer needs, and can take steps to improve their products or services to address any issues which are currently attracting criticism on the forums.

Extension

Recommendations – Probably the best-known examples of customer extension are the 'recommendations' that customers are given on Amazon. Amazon's data modelling software allows them to monitor products which customers often buy together. Therefore, when existing customers log back in to Amazon, they are given recommendations of other products they might like to buy, based on their previous purchases.

However, recommendations are not only made when customers log on; they also occur at the point a customer makes a purchase. For example, if a customer purchases a television, they might then be asked at the checkout if they also want to buy a television stand to go with their television.

5.7 Web 2.0 technologies and social media

The phrase 'Web 2.0' has become synonymous not only with a new generation of web technologies and softwares, but also with changes in the ways users interact with content, applications and each other.

One of the key benefits of Web 2.0 technologies is that they increase opportunities for collaboration and the sharing of knowledge.

The most commonly used technologies – such as blogs, microblogs (eg, Twitter), wikis and podcasts – can help companies strengthen their links to customers, especially with the use of automatic information feeds such as RSS (Really Simple Syndication). Not only do Web 2.0 technologies allow companies to distribute information about their products or services but, perhaps more critically, they also invite customer feedback and even customer participation in the creation of products and services.

Earlier in the chapter, we highlighted the importance of viewing marketing as a customer-centric process. By enabling marketers and sales staff to develop better insights into markets, or to interact with consumers, Web 2.0 technologies can be seen as being integral to a customer-centric process such as marketing.

Web 2.0 technologies and networked companies

Interestingly, a podcast by McKinsey Quarterly in March 2013 ('How companies are benefiting from Web 2.0') suggested that Web 2.0 deployments are not confined to companies' relationships with customers, but can also contribute to workflows and knowledge sharing between employees, and help create more **'networked' companies** – strengthening the links between companies and their suppliers and other business partners.

If Web 2.0 technologies improve knowledge sharing and access to knowledge within and across companies, this may also be able to help companies innovate more effectively.

5.8 The potential impact of Web 2.0 technologies and business strategy

Web 2.0 technologies can provide firms with opportunities in a range of activities – from market research to marketing, collaboration, innovation and design.

5.8.1 The importance of user experience and participation

Web 2.0 allows internet users (and potential customers for businesses) no longer simply to be recipients of information, but also to participate in the creation, sharing and evaluation of content. In other words, users can actively take part in 'many to many' communications. A crucial aspect of Web 2.0 is that it focuses on user experience and participation.

This is important for businesses. Web 2.0 allows firms of all sizes to engage with customers, staff and suppliers in new ways. In particular, it allows firms to have a more customer-focused approach to **new product development** – because customers can be involved in the design of the new products.

Web 2.0 has highlighted the significance of **dynamic social interactions** in the environment, rather than considering business and business transactions as a set of static business processes.

We have already identified the **importance of knowledge** to businesses, and Web 2.0 plays an important role in this 'knowledge economy' through supporting **collaboration**, **knowledge sharing** and, ultimately, innovation.

The idea of **collaboration** is also very important when considering how Web 2.0 technologies could affect business strategies. The potential impact could be significant if organisations find it becomes as efficient to do business through collaborating **outside** the organisation's structure, rather than doing business within the organisation's own structure.

In effect, collaboration is an extension of the idea of **outsourcing**, although where as with outsourcing, specific processes are outsourced **to** specific companies, in the case of collaboration, anybody can contribute to the discussion in progress.

(The collaborative online encyclopaedia – Wikipedia – is probably the best-known illustration of this, but Procter & Gamble has also promoted the idea of collaborative innovation through its 'Connect + Develop' programme, in which external innovators form partnerships with Procter & Gamble to develop new products.)

Companies can also extend this idea of collaboration to involve members of online communities in the product development process, through **crowdsourcing**.

Definition

Crowdsourcing: The process by which an entity takes a function previously performed by employees and outsources it to an undefined and large community of people in the form of an open call.

Companies such as Procter & Gamble, Nike and Starbucks have all created digital platforms which allow customers to respond to 'open calls' with a view to them contributing ideas and being involved in the creation of new products or marketing messages.

The crowdsourcing process also enables companies to gather more data, and to develop a more detailed understanding of their markets, than they would previously have been able to do.

Crowdsourcing requires the collaboration of large numbers of people, and prior to the development of Web 2.0 technologies this was difficult to achieve.

However, Web 2.0 technologies have offered new opportunities for collaboration and knowledge sharing involving large crowds – and at very little cost to the companies involved.

We will now look at some of the other key aspects of Web 2.0.

Web-based communities

Probably the most popular aspect of Web 2.0 has been social networking sites, such as Facebook, which now has more than one billion unique visitors.

Web-based communities are enhanced by:

(a) **Social networking** – Social networks (such as Facebook*)* allow users to make contact with other users. As well as mass market social networks, a number of smaller, more focused niche social networks have begun to emerge. The value of these sites is that they allow users to connect with others whom they share a common interest with. For example, LinkedIn is a network for business people looking to build business contacts, and also to advertise their skills and experience to potential employers or clients.

(b) **Blogs** – Blogs provide an easy way for users to publish their own content. Blogs are usually text based. Users can publish audio and visual content as podcasts, and the growth of sites such as YouTube illustrates how popular podcasts have become.

The microblogging site Twitter provides a platform for people who want to publish very short blogs ('tweets').

(c) **Wikis** – Wikis allow user groups to collaborate in contributing and editing educational or reference-based content. Wikipedia, the collaborative online encyclopaedia, is the best-known example of this.

(d) **Instant messaging** – This allows real-time conversations between two or more participants using pop-up dialogue boxes (eg, instant messaging is now available in Skype).

These web-based communities mean that web **users are now participants in the web experience**, rather than simply being observers.

Moreover, these communities allow people to get to know each other and to interact, regardless of their physical or geographical location.

5.8.2 Socialisation of knowledge sharing

Web 2.0 technologies encourage the socialisation of knowledge sharing through:

(a) **Tagging of information** – A tag is a keyword assigned by a user to describe a piece of information (such as a file, an image or an internet bookmark). Tagging is a key feature of many Web 2.0 applications and is commonly used on file storing and file sharing sites. Once a file has been tagged, the tag allows it to be found again when a relevant search enquiry is made.

Tags are examples of **metadata**, which is 'data about other data'. The title, author and publication date of a book are examples of meta data about a book, and this data could help a user find the book he or she is looking for.

Tagging also highlights an important point which businesses need to consider. The new technologies mean that the amount of information on the internet is rising constantly. However, information is no use if it can't be found. SEO is therefore increasingly important for businesses – making sure that the information on the website of a business is findable and relevant.

(b) **Mashups** – A mashup is a web publication that combines data from more than one source into a single web page. For example, a restaurant review website could take the location details of all the local restaurants in an area and map them onto a single Google map page.

(c) **Feedback on sources of information.**

(d) **Promoting collective intelligence** – Collective intelligence refers to both structured and unstructured group collaboration. It describes the way people's opinions or behaviours can be aggregated so that others can learn from their collective decision-making.

The online auction site eBay uses collective intelligence to let potential buyers see how efficient and trustworthy vendors are. Equally, Amazon and a number of online sites include product reviews, allowing people who have purchased an item to comment on the item and rate its performance.

Amazon also uses collective intelligence to make product recommendations based on purchasing patterns. When a user selects an item to buy, he or she is presented with a list of other items purchased by people who have already bought the current selection, which may encourage a user to make follow-up purchases.

User generated content: Websites can now have sections of content created by their readers. One of the main ideas behind Web 2.0 technologies is that users can generate the content of sites themselves, and these technologies allow users to create, capture and share information across the web. The video streaming website, YouTube, and the image and video hosting website, Flickr, are popular examples of content sharing sites.

Consumer generated content (CGC): Websites can now contain shared feedback from consumers; for example, product reviews. This has important implications for businesses, because it means customers can communicate with other (potential) customers very easily. If a customer receives poor customer service, they can now tell everyone else about it, which could damage the business's reputation, and lead to a decline in sales.

The most widely known example of CGC is the user reviews developed by Amazon noted above. Many customers review users' product reviews when assessing prospective purchases.

5.8.3 Applications of Web 2.0 for business

In recent years, we have seen the emergence of a number of new online companies. Most are probably also run by young entrepreneurs for whom technology will play a key role in their business strategy:

(a) The business can find partners, collaborators, customers and suppliers through social networks and blogs.

(b) It can use blogs and social networks for publicity and to market itself, and it can encourage customers to leave feedback on its site (CGC).

(c) It can manage the development, creation and delivery of its products through virtual workspaces and wikis that support collaboration, innovation and the management of workflow. The collaborative nature of Web 2.0 enables external third parties to participate in product development.

(d) It can get market intelligence through blogs and online reference sites. It can also get feedback on how customers perceive its own products or services.

Staff – Importantly also, if a business wants to attract and retain young, dynamic employees, it will need to provide them with tools they are familiar with, and offer a work environment that fits in with their lifestyle.

Marketing – Web 2.0 can have significant implications for marketing approaches. Teenagers and young adults can be an important demographic for many businesses, and sites such as Facebook and Twitter play an important part in their lives. In this way, running campaigns through popular social networking sites can offer businesses a way of engaging with these users, allowing them to reach a demographic that has traditionally been difficult to reach. Marketers can also use pre-existing social networks as a mechanism for promoting **viral marketing** campaigns. In these, a company will generate an initial marketing message, but people then pass it along to their friends and contacts through their social networks.

5.8.4 Web 2.0 and social media marketing

Definition

Social media marketing: Refers to the process of acquiring customers, and attracting the attention of potential customers, through social media sites.

Web 2.0 technologies have changed the way companies interact with customers, and have also changed the way customers (or potential customers) interact with content and each other. On the one hand, marketers are increasingly using social media networks (such as Facebook and Twitter) to create buzz around their products. On the other hand, the development of web-based communities – and the associated social networking and social media sites – allows users to provide and share information about themselves. In turn, this information can be valuable to marketers.

For example, marketers could analyse the people who 'like' their brands or products on Facebook, and identify those who fit their target demographic. By observing the chatter among those fans on social media, marketers could identify not only sentiments about their own brands, and competitor brands, but also the wider interests of its target demographic – for example, celebrities and TV shows talked about; events that are frequently discussed; topics (articles; video clips or photos) which are commonly shared; or websites which are commonly visited.

In turn, marketers can use this information to help shape their own marketing activity – for example, buying banner adverts on websites which are frequently mentioned; buying advertising space in a TV show being discussed; getting a named celebrity to endorse their product or brand; or developing partnerships with other brands in other industries (where those brands are popular with the target demographic).

Social media and targeted marketing

More generally, social media marketing enables organisations to target relevant marketing messages to narrowly defined market segments, based on the data it has gathered and analysed about its customers and potential customers. This kind of data-powered, targeted marketing is likely to be not only more effective, but also more cost efficient than traditional forms of mass (eg, television and newspaper) advertising.

Context example: Shake Shack

Although the US fast food company, Shake Shack, is much smaller than competitors like McDonald's and Burger King it has used its social media presence to increase its sales very successfully.

While the industry giants like McDonald's and Burger King frequently advertise on traditional media (such as television or billboards), Shake Shack has instead focused on building an audience through social media platforms like Instagram and Vine – which have a disproportionately high usage among the country's youth population.

And Shake Shack's approach appears to be paying off because not only has its brand won the goodwill of America's younger fast food eaters, it has also generated a cult-like following online.

A report by Goldman Sachs related to the company's IPO in January 2015 highlighted that Shake Shack 'does essentially no traditional marketing, but has a strong presence on social media, which speaks to its relevance among millennials' (people born around the turn of the Millennium). Using both Vine and Instagram as examples, its followers are much larger than what its system sales would suggest.'

Goldman Sachs' report pointed out that although McDonald's sold more than 300 times as much fast food as Shake Shack – which has fewer than 40 restaurants in the US – McDonald's Instagram following was only approximately three times as large (500,000 compared to 155,000 followers).

Moreover, Shake Shack's use of social media means that its marketing activities have a minimal cost, whilst at the same time enabling it to reach the demographic group (millennials) who are about to become the largest segment of the population.

Based on an article by Roberto Ferdman in The Washington Post: *Where Shake Shack has McDonald's – and most other fast food chains – beat*, 25 February, 2015, www.washingtonpost.com

Context example: Social media and promotions

Discounts are a very important marketing tool for attracting new customers or clients to a company, and a number of companies now distribute special offers and promotional codes via Facebook. In effect, the companies are offering discounts to users who 'like' their Facebook page. Importantly, the promotional codes are offered exclusively to people who 'like' a company or brand's page on Facebook.

By using promotional codes in this way, a company could hope to encourage loyalty among its Facebook fans, but it can also gather information about them (for example, email address; age) if users have to provide these details in order to validate their code.

Similarly, companies are encouraging customers to 'follow' them on Twitter, to receive voucher codes as well as updates on other special offers.

However, the value of social media comes from allowing companies to engage with customers and build relationships with them, not simply from selling to them.

For example, Starbucks communicates with fans on Facebook on an ongoing basis with a stream of offers and benefits, only some of which are revenue generating. Starbucks' Facebook page combines its offers with stories about the brand, the history of its coffees, and the history of Starbucks' stores.

Moreover, Starbucks' Facebook page incentivises people to 'share 'the page with friends. In turn, this sharing adds to the number of customers (and potential customers) Starbucks can build a relationship with.

By July 2018, Starbucks was liked by over 37 million people on Facebook, and had more than 11.5 million 'followers' on Twitter.

However, if companies do engage in social networking or publish blogs, they need to monitor how these are perceived by the online communities. **Brand management** remains very important – perhaps even more so now, because of the way users can publish negative feedback on poorly designed or presented content.

Conversely, though, favourable customer review comments on products or services can be very useful PR material for an organisation.

By allowing web users to provide feedback and share ideas, Web 2.0 is encouraging a model in which people from outside an organisation can have an impact on that organisation's strategy.

Moreover, the internet becomes, in effect, a research tool, where companies can find out about customers' opinions about products and services. Web 2.0 allows businesses to aggregate opinions from many different individuals to guide idea generation and strategic decision-making.

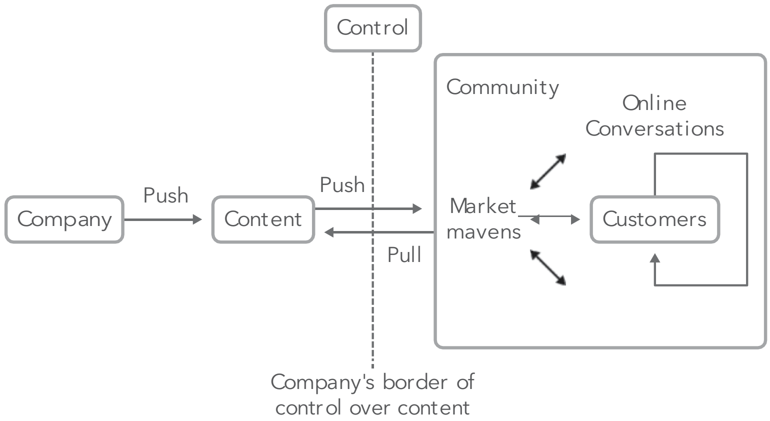
In this way, customer networks and social interaction have become much more important in marketing.

Hollensen, in his text Global Marketing, provides a useful diagrammatic summary of the way customers and the community help to shape content about companies and brands. He refers to this as the 6C model (with the 6Cs being company, content, control, community, customers and conversations).

However, the model also highlights the important role played by **market mavens** in influencing online communities. Market mavens (or **market influencers**) are individuals who have access to a large amount of marketplace information and who proactively engage in discussions with other online community members and customers to share this information. As such, companies often try to

target the market mavens when pushing content into the online community, knowing that the mavens will then transmit it to their own social networks.

Figure 5.4: Social interaction in online marketing (Based on a figure in Hollensen: Global Marketing)



CHAPTER 5

5.8.5 Potential limitations of social media

In recent years, there has been considerable hype about the growth of social media. However, some commentators still urge caution about the impact of social media on purchasing decisions. In particular, questions are raised about the sort of information which people actually exchange on social networking sites.

People use social media mainly to socialise, not to buy goods or services. As a result, much of the information that is exchanged is non-commercial in nature, and so may be of limited value to businesses.

Clearly, there is some overlap between the conversations people have about their social lives and conversations about products, services and brands. In this respect, social networking platforms may be a good way for companies to 'listen' to what customers are saying about their brands.

Similarly, social media can be very useful for networking, building relationships and engaging with customers and prospects. However, the actual expenditure generated through social media has, so far, been relatively low, so other marketing channels may remain more relevant and powerful for influencing customers' purchasing decisions.

For example, many brands boast very large numbers of Facebook fans or 'likes'. But marketing directors could be justified in asking what benefits these 'likes' actually bring a brand. Simply 'liking' a brand on Facebook doesn't mean that someone is going to purchase that brand.

However, research by the management consultancy firm, McKinsey, published in July 2015 ('Getting a sharper picture of social media's influence') suggests that the impact of social media on buying decisions is now greater than previously estimated and growing fast, although its influence varies significantly across different product categories.

According to McKinsey's research, social recommendations induced an average of 26% of purchases across all product categories, which is substantially higher than the 10–15% which had previously been estimated.

McKinsey also highlighted that social recommendations can either be direct (at the point of purchase itself) or indirect – for example, when interactions with friends or other influencers create an initial awareness of a product or help consumers to compare product attributes.

Potential issues with social media

Potential threat to companies/brands – Social media gives customers the power to transmit/share messages which may not be the messages the companies actually want to be transmitted (for example, if a guest has had an unsatisfactory meal in a restaurant, or stay in a hotel, they can publicise this on review sites such as TripAdvisor).

Equally, conversations between social networkers may not be in the best interests of a company. For example, many Facebook groups are set up to complain about organisations.

In this way, the internet and social media are not simply increasing the role of the consumer in the marketing process; they could also be seen to be increasing consumers' power over the marketing process.

Context example: Potential risks from social media

In September 2013, accounting firm Grant Thornton published a report titled 'Social media risks and rewards'. The report explored the increasing use of social media by large companies and the new types of risk that such communication brings. The growing importance of social media among big business is evident from the report's findings:

- More than half (55%) of the executives who responded to the survey feel that social media will be an important component of corporate marketing efforts going forward.
- Two thirds (66%) of respondents expected their company's use of social media to increase slightly or significantly over the next 12 months.

Social media risks

The report identifies four main risks from using social media:

(a) damage to brand reputation

(b) disclosure of proprietary and/or confidential information

(c) corporate identity theft

(d) legal, regulatory and compliance violations

'Nearly three quarters (71%) of executives surveyed were concerned about the potential risks involved in the use of social media, but believe the risks can be mitigated or avoided'.

The report highlights some examples of companies which have failed to manage their social media communications effectively, including the following by Gap and Netflix:

Gap – In 2012, when Hurricane Sandy struck parts of America causing severe devastation, retailer Gap posted a tweet via Twitter which advised customers to 'stay safe, and perhaps shop at Gap.com'. Gap apologised shortly afterwards and removed the message.

Netflix – The US Securities and Exchange Commission (SEC) investigated Netflix in 2012 after the company's CEO, Reed Hastings, posted information on Facebook which boosted its share price.

Reed Hastings' postings raised an interesting issue about social media communications and associated risks. As social media starts to play an increasing role in how businesses communicate, careful consideration needs to be given to ensuring that private messages expressing personal opinions are not perceived as official corporate communications.

Source: Grant Thornton, *Social media risks and rewards,* www.grantthornton.com

6 Brand management

Section overview

Strong brands are important to companies and consumers. Strong brands add value to companies, justify premium prices and therefore higher profits, strengthen customer perceptions of a company, act as a barrier to competition, and provide a base for brand extension. Customers benefit because they can trust the brand and rely on the quality of the product/service they are buying.

6.1 Brands and strategic performance

Traditionally, a **brand** is a name, term, sign, symbol or design intended to identify the product of a seller and to differentiate it from those of competitors.

However, as Morgan Witzel stresses in his article 'Strategy and Brands' (ICAEW, *Finance & Management*, October 2010), a brand is much more than just a name or marque.

In his article, Witzel stresses that no company, whatever market or sector it operates in, will enjoy long-term strategic success unless it has a strong brand. Companies need strong brands in order to survive, and therefore, a key task for managers thinking about their company's strategy is to understand what their brand is and how to strengthen it.

In Strategic analysis of this Workbook we considered the role of resources and capabilities shaping an organisation's strategy. However, as the business environment becomes increasingly dynamic, many sources of competitive advantage, such as technology, become increasingly short-lived.

Despite this, brands remain one of the few assets that can provide and sustain long-term competitive advantage. Strong brands can enhance business performance through their influence on key stakeholder groups. For example:

Customer – Influencing customer choice, and creating loyalty

Employees – Attract, motivate and retain talent

Investors – Lowering the cost of financing

The influence of brands on customers is a particularly important driver of economic value. Strong brands help shape customer perceptions and therefore purchase behaviour, making products and services less substitutable. In this way, brands help to create and sustain demand, allowing their owners to enjoy higher returns.

Interactive question 7: Brand marketing

The CPH Group comprises four companies, operating in very different market sectors.

- CPH Construction Ltd (Construction)
- CPH Engineering Ltd (Engineering)
- CPH Transport Ltd (Transport)
- CPH Gaming Ltd (Gaming)

Each of the companies has its own management team, headed by a Managing Director.

Recently, the Managing Director of CPH Gaming has come under increasing pressure from the board of the CPH Group to justify the comparatively large outlay the business incurs on marketing and advertising, compared with the other three companies. The Managing Director maintains that Gaming relies more heavily on its brand than the other CPH companies and, as such, must invest a much higher proportion of its turnover in marketing and promotion.

Requirement

Describe how the CEO of Gaming could substantiate assertions about the level of brand investment his business requires.

See **Answer** at the end of this chapter.

The brand management consultancy, Interbrand, highlights two key concepts which influence the value of a brand:

Role of brand – The brand's influence on current purchase behaviour; the influence that brands can have on demand by encouraging customers to select one product in preference to another.

Brand strength – Brand strength is a brand's ability to sustain demand into the future by encouraging customer loyalty, thereby reducing risk associated with the brand's financial forecasts (for example, arising from the risk that customers will switch to competitor products or services).

Context example: Brand strength

The Interbrand Report of Top Global Brands (2017) identified Coca-Cola as the fourth most valuable global brand (after Apple, Google and Microsoft), with a brand value of $69,733 million.

Coca-Cola itself has acknowledged that only a relatively small percentage of the company's value lies in its plant and machinery, because most of the value lies in its brand.

Strong brand names have positive effects on consumer perceptions and preferences. Jobber, in *Principles and Practice of Marketing,* highlights a striking example of this:

"Two matched samples of consumers were asked to taste Diet Coke and Diet Pepsi, and state a preference between the two drinks. The first group carried out a 'blind test' (that is, they tasted the drinks without being told which one was which). The second group carried out an 'open test' (that is, the group knew which drink was which when they tasted them)."

The results of the tests were as follows:

	'Blind' tasting	**'Open' tasting**
Prefer Diet Coke	44%	65%
Prefer Diet Pepsi	51%	23%
No clear preference	5%	12%

The tests clearly show how a strong brand name influenced perceptions and preferences towards Diet Coke.

This kind of positive brand equity is likely to result in high customer loyalty and low price sensitivity, which in turn should enable market-leading brands (like Coca-Cola) to be able to sustain high profits.

Brand identity

Brand identity conveys a lot of information very quickly and concisely. This helps customers to identify the goods or services and thus helps to **create customer loyalty** to the brand. It is therefore a means of increasing or maintaining sales. (In some extreme cases, a strong brand could even act as a **barrier to entry**, preventing potential entrants from entering a market if they think customers will not be persuaded to move away from the brand.)

Where a brand image promotes an idea of **quality**, a customer will be disappointed if their experience of a product or service fails to live up to expectations. Quality assurance and control is therefore of the utmost importance. It is essentially a problem for **service industries** such as hotels, airlines and retail stores, where there is **less possibility** than in the manufacturing sector of **detecting and rejecting the work of an operator before it**

reaches the customer. Inappropriate or unhelpful behaviour by an employee in a face-to-face encounter with a customer will **reflect on** the **entire company** and possibly deter the customer from using any of the company's services again.

Brand awareness is an **indicator of a product's/organisation's place in the market**. **Recall tests** can be used to assess the public's brand awareness.

6.1.1 Branding and strategy

Branding messages are usually qualitative rather than focusing on price. One of the perceived advantages of branding is that by creating an 'identity' for a product, an organisation can reduce the importance of price differentials between their product and rival products. This may, in turn, allow an organisation to charge a higher price for their product.

However, some brands will position themselves on the basis of value for money, so branding does not necessarily mean charging premium prices. Moreover, certain consumers reject 'branded products', especially when considering **value for money**. This can be seen in supermarkets where shoppers choose generic (own label) products in preference to brand names, because the own label products are seen as being cheaper but having the same use.

In this respect, branding is perhaps most appropriate to organisations or products which are following a differentiation strategy. Branding is a form of **product differentiation**, which makes it possible for organisations to charge premium prices for a product (or service) and therefore earn higher profits than if products had to be sold at a lower price. (Think, for example, of designer clothes labels. The kudos attached to the brand means that the clothes can be sold for significantly higher prices than non-branded equivalents.)

Luxury brands use quality and exclusiveness to appeal to consumers. Recent reinventions of 'tired' brands include Burberry, where a new designer has extended the brand life by reinventing the house style and transferring this into new products. Extending the brand life in this way means the business can continue to benefit from the status of an existing brand. Burberry had a loyal customer base who bought the signature check products and these are still produced. However, it was also able to extend the brand life by attracting younger, high-spending customers who prefer modern interpretations but which are associated with established quality. This represents additional revenue.

Another important aspect of branding is the creation of brand loyalty, thereby improving **customer retention** rates and encouraging repeat purchases. An example of the way organisations try to increase brand loyalty is in the use of loyalty cards by supermarkets (for example, Tesco's Clubcard).

6.1.2 Reasons for branding

The following are reasons for branding:

(a) It is a form of product differentiation, conveying a lot of information very quickly and concisely. This helps customers to identify the goods or services readily and thereby helps to create customer loyalty to the brand. It is therefore a means of increasing or maintaining sales. In this way, a brand can also act as a barrier to entry. If a supplier has already established a strong brand in a market, it will discourage new entrants into that market.

(b) Advertising needs a brand name to sell to customers, so advertising and branding are very closely related aspects of promotion; the more similar a product (whether an industrial/commercial or consumer) is to competing goods, the more branding is necessary to create a separate product identity.

(c) Branding leads to a readier acceptance of a manufacturer's products by wholesalers and retailers.

(d) It facilitates self-selection of goods in self-service stores and also makes it easier for a manufacturer to obtain display space in shops and stores.

(e) It reduces the importance of price differentials between products.

(f) Brand loyalty in customers gives a manufacturer more control over marketing strategy and of choice of channels of distribution.

(g) Other products can be introduced into a brand range to 'piggy back' on the articles already known to the customer (but ill-will as well as goodwill for one product in a branded range will be transferred to all other products in the range). Adding products to an existing brand range is known as brand extension strategy.

(h) It eases the task of personal selling (face-to-face selling by sales representatives).

(i) Branding makes market segmentation easier. Different brands of similar products may be developed to meet the specific needs of different categories of users.

The relevance of branding does not apply equally to all products. The cost of intensive brand advertising to project a brand image nationally may be prohibitively high. Products which are sold in large numbers, on the other hand, promote a brand name by their existence and circulation.

Brand strength

The brand management consultancy, Interbrand, has highlighted a range of factors which determine a brand's strength. If organisations are trying to manage or sustain their brands, they would be advised to check how well their brands perform against these factors:

Internal factors	
Clarity	It is important to be clear about what the brand stands for: its values, its positioning, its value proposition, and what customers can expect from using the brand.(In this respect, note the links between branding and positioning that we discussed earlier in the chapter.) It is also important to be clear about who the brand's target audiences are, and what they value.
Commitment	An organisation needs to be committed to its brand, and believe in the importance of its brand.
Protection	How secure is the brand; for example, through legal protection, or through proprietary ingredients or design?
Responsiveness	The ability to respond to market changes, whether they are opportunities or threats. In this way, the brand needs to be able to evolve and renew itself, to ensure it remains relevant to the market.
Authenticity	The brand needs to be based on an internal truth and capability, and can consistently deliver against the expectations which customers have of it.
Relevance	What the brand offers needs to fit with customer needs and desires, across all relevant market segments and geographies.
Differentiation	The brand's strength will be influenced by the degree to which customers perceive the brand to have a differentiated position, which is distinctive from its competitors.
Consistency	The brand experience needs to be consistent across all touch-points or formats.

Internal factors	
Presence	How aware are people of the brand? How much is it talked about (positively) by consumers, customers and opinion-formers; in both traditional media and social media?
Understanding	Do customers recognise the brand, and also understand its distinctive qualities and characteristics? Where appropriate, do customers also understand the company that owns the brands, and the distinctive qualities of that company?

When looking at strategies to maintain or develop their brands, companies should consider how well the proposed strategies will help to strengthen these factors.

However, it is also important to ensure that the brand's position fits with the other elements of the marketing mix.

Note: The link back to the idea of positioning which we covered in section 3 of this chapter. Brands can be positioned against competitor brands on product maps defined in terms of how buyers perceive key characteristics of the brands.

6.2 Brand strategy and marketing strategy

Brand positioning is a crucial part of marketing strategy. As we identified in section 3 of this chapter, **positioning** is the 'act of designing the company's offer and image so that it occupies a distinct and valued place in the target customer's mind.' As its name implies, positioning involves finding an appropriate position for a product or service in the marketplace so that consumers think about that product or service in the 'right' way. Equally, brand positioning involves identifying the optimal location of a brand in the minds of consumers, and in relation to its competitors, to maximise the potential benefit of the brand to the company which owns it.

If we consider the general functions of a brand (per the bullet points below), we can see how closely they are also linked to the logic of positioning:

- to distinguish a company's offering, and to differentiate one particular product from competitor products
- to deliver an expected level of quality and satisfaction
- to help with promotion of the product and to develop awareness of it

Brand positioning should help to guide marketing strategy by clarifying: what a brand is; how it is unique or different from competing brands; and why consumers should purchase and use the brand.

Once a brand's positioning strategy has been determined, the brand's marketers can then develop and implement their marketing strategy to create, strengthen or maintain brand associations. In this respect, obtaining an appropriate combination of the 'marketing mix' elements (4 Ps, or 7 Ps) will be very important when designing the marketing campaigns to support the brand.

Product – The product (or service) is central to brand equity because it is the primary influence on consumers' experience with a brand, as well as on what they hear about a brand from others, and about what a company can tell consumers about the brand in any marketing communications.

Products must be designed, manufactured, marketed, sold, delivered and serviced in a way which creates a positive brand image with customers. If a company does not have a product or service which satisfies customer needs (particularly in relation to perceived quality and value), that company will not be able to develop a successful brand, or engender any customer loyalty to that brand.

The importance of acquiring and retaining loyal customers has led to relationship marketing becoming a priority for branding. The marketers who are most successful at building customer- based brand equity will be those who ensure they understand their customers, and understand how to deliver value to their customers before, during and after purchase.

Price – The price element of the marketing mix pricing policy for a brand is very important because it can play a key role in shaping consumers' perceptions of a product (eg, as being high, medium or low priced). However, price often also has an association with quality; and consumers often infer the quality of a product or service on the basis of its price.

In some cases, consumers are willing to pay a premium for certain brands because of what they represent. But in terms of preparing a marketing strategy to develop a brand, it is important to ensure that the price is consistent with the perceived quality or value of a product to the customer. The benefits delivered by a product, and its competitive advantages compared to rival products, can often have a significant impact on what consumers believe to be a fair price for a product.

In this context, the concept of **value pricing** could be very useful. The objective to value pricing is to identify the right blend of product quality, product costs and product prices to satisfy both the needs and wants of consumers and also the profit targets of the company.

Place – The manner in which a product is sold or distributed can have a profound impact on the sales success of a brand. In this respect, channel strategy (the way firms distribute their products to consumers) is important for building and maintaining a brand.

In this respect, channel strategy involves deciding whether to sell directly to customers or to sell through third-party intermediaries (eg, wholesalers and retailers). In either case, however, it is important to ensure that the shop's image is aligned to the brand's image – for example, it would not seem appropriate to use a discount retailer for selling a brand which seeks to emphasise high quality and luxury as differentiating factors.

Another important decision in relation to channel strategy is whether to sell online, offline or through a combination of both.

For many companies, the best channel strategies will be ones which develop an integrated shopping experience, combining physical stores and internet. For example, Nike sells its products through a range of department and clothes shops as well as through some of its own 'Nike Town' shops.

Alongside this, Nike's own e-commerce website (store.nike.com) allows customers to buy directly from it online, while a number of the other shops which stock Nike products also have their own e- commerce websites.

Promotion – It should be obvious that the aim of promotion and marketing communications should be to increase consumers' knowledge of a brand and to entice them to buy that brand.

Companies have a wide range of potential communication options they could use for a marketing campaign: for example, broadcast media, print media, direct response (eg, phone calls), online advertising, consumer and trade promotions, and event marketing and sponsorship. Crucially, however, when deciding on its promotion strategy, a company must evaluate the effectiveness and efficiency with which that strategy affects brand awareness, and how it creates or strengthens favourable brand associations.

6.3 Brands and strategic alignment

In order for a business to be successful, there needs to be alignment between its strategy and its brand.

Brands will ultimately only succeed if they are capable of delivering what they promise, day in, day out; year in, year out.

Although Toyota has had problems with product recalls in recent years, its sales figures have bounced back, because customers have offset the recent problems against their own long experience of reliable Toyota cars, and this experience has won in the long run. Although brand equity has been tarnished slightly by the product recalls, it has not been badly damaged.

Links between branding and operational strategy

To deliver reliable brands, a company needs to ensure that its production and distribution systems are reliable, that its marketing staff are in touch with its customers, and that any faults get reported so that they can be repaired quickly.

In short, in order to deliver a reliable brand, an organisation needs to ensure that all its staff members are focused on doing their best for the customer, and that senior managers within the organisation are also engaged with this customer-centric process.

To be effective, brand marketing strategy and business strategy must be properly aligned, both internally and externally. Internally, employee commitment will be required to support internal service quality, while externally the brand quality will influence customer satisfaction and retention.

If companies become complacent, or fail to cherish their brands, the results can be very damaging. Marks & Spencer has historically been an iconic name in British retailing, but in the 1990s its senior managers took their eye off the ball, and by the time they realised how customers' opinions of the brand were falling, it was almost too late. It has subsequently taken many years, and a lot of hard work, to restore the M&S brand.

The social value of brands

Although the economic benefit of brands to their owners is clear, the social value of brands may be less clear. For example, critics argue that brands only create value for their owners, rather than society at large. In this respect, the critics argue that brands lead to the exploitation of workers in developing countries, and the homogenisation of cultures. Furthermore, if brands establish monopoly positions in markets, they stifle competition and limit consumer choice.

The counter argument is that brands create significant social as well as economic value, as a result of increased competition, improved product or service performance, and the pressure on brand owners to behave in socially responsible ways in order to uphold the image of the brand.

Moreover, competition on the basis of performance as well as price fosters product developments and improvement. The need to keep brands 'relevant' can therefore also act as an incentive for R&D. In this respect, there is evidence that companies which promote their brands more heavily than others in their market segments also tend to be more innovative than their rivals.

6.3.1 Customers and brand value

Brand value is created by customers' reactions to a brand. If a customer has a positive experience of a brand, they will be more likely to use that brand again and become loyal to it, so the brand's value increases. Conversely, if customers have a negative experience of a brand or are dissatisfied with it, then the brand's value will effectively go down.

As with so many aspects of marketing we have discussed in this chapter, here again we can see the importance of customers in the success of a brand. The growth of social media reinforces this too.

As Morgan Witzel notes in his article in *Finance & Management*:

"Today, every action a company takes, every experience people have of a brand, is likely to be discussed on the internet – often almost immediately. Take for example the popular website TripAdvisor, where people post their experiences of hotels and holiday destinations. Many people, before making a booking, look up the destination on TripAdvisor and make purchase decisions on what they read there. Brand value – both positive and negative – is created in the process."

The reference to social media also highlights the importance of companies listening to customers and reacting to their views. However, this engagement and interaction between companies and customers is ultimately critical for creating brand equity.

6.3.2 Brand value

We will look at the techniques for valuing brands later in this chapter but, in terms of developing strategies for managing brands, it is important to understand the sources of brand value:

Source	Comment
Experience	The customer's actual usage of a brand can give positive or negative associations.
User associations	Brands get an image from the type of people using them; brands might be associated with particular personalities.
Belief	This might be a 'placebo' effect; belief in a brand may enhance its effectiveness.
Appearance	Design appeals to people's aesthetic sensibilities.
Manufacturer's name	The company reputation may support the brand.

Based on: Doyle & Stern, *Marketing Management and Strategy*

These sources of brand value suggest that **customers** play a key role in creating brand value. As the case example (earlier) of the 'blind test' between Coca-Cola and Pepsi shows, customers exhibit a **subjective** preference for a strong brand name, even though they cannot tell the difference between two products.

However, brand equity doesn't solely come from customers. There are also two important sources of brand value which are controlled by the brand's company:

(a) **Patents** – Patents protect a brand from competitive threat over the lifetime of the patent. Patents are often used to protect pharmaceutical brands, but the value of the brand will fall as its patents expire and it becomes subject to competition from low-priced generic manufacturers.

(b) **Channel relationships** – Close relationships with distributors and suppliers can enhance the value of company brands. This reinforces the importance of effective supply chain management (which we discussed in Strategic implementation).

7 Branding and marketing strategy

Section overview

The importance of having a strong brand means that developing brands is a key marketing activity for a company. Developing a brand involves a continuous search for ways to increase the brand's full potential.

7.1 Branding strategies

In the previous section, we looked at ways a company could manage or sustain its existing brand. However, companies may also want to use branding strategies to develop and expand their brands.

Kotler has identified the following five strategies a company can use once it has established its brand(s):

(a) **Line extension** – An existing name is applied to new variants of existing products, for example Coca-Cola launching Diet Coke.

(b) **Brand extensions** – Using an existing brand to launch a product in a new category, for example chocolate bars such as Mars or Galaxy and Mars/Galaxy ice creams.

(c) **Multi-branding** – Launching several brands in the same category, for example Kellogg's offers a range of breakfast cereals with their own brands – for example, All-Bran, Cornflakes, CocoPops, Rice Krispies.

(d) **New brands** – New products are launched under their own brand, for example Coke attempting to sell bottled water under the 'Dasani' brand.

(e) **Co-branding** – Two brands are combined in an offer, for example Sony PlayStations were offered in a package with a Tomb Raider game.

The decision as to whether a brand name should be given to a range of products, or whether products should be branded individually, depends on quality factors.

(a) If the brand name is associated with quality, all goods in the range must be of that standard.

(b) If a company produces different quality (and price) goods for different market segments, it would be unwise to give the same brand name to the higher and the lower-quality goods because this could deter buyers in the high quality/price market segment.

7.2 Developing an effective position

Deepening a brand means moving a brand, in the minds of consumers, from a **defined product** with **differentiated features** to a product they identify with their **personal goals and values**.

A brand's position can be strengthened by 'laddering' from functional to more emotional benefits – in effect, giving a customer multiple reasons to believe in the brand. Procter & Gamble grew the Pantene shampoo brand by emphasising how the ingredient, ProV, not only led to healthy hair, but could also make hair feel softer or thicker.

7.2.1 Strategic planning and brand development

The 'classic' approach to developing brands is outlined below. Brands are developed from the strategic plan and are part of the hierarchy.

Stage	Description
Market analysis	An overview of trends in the environment, markets, customers and competitors and the identification of any PESTEL factors which may affect the brand.
Brand situation analysis	Analysis of the brand's personality and individual attributes. This represents the internal audit and questions such as, 'Is advertising projecting the right image?', 'Is the packaging too aggressive?' and 'Does the product need updating?' need asking. This is a fundamental evaluation of the brand's character. There are three aspects. **Core**. This is the fundamental, unchanging aspect of a brand (eg, whisky is an alcoholic drink). **Style**. This is the brand's culture, personality, the identity it conveys and so on. **Themes**. These are how the brand communicates through physical appearance of the product. Clearly, themes are easier to change than style, which in turn is less difficult to change than the core.
Targeting future positions	This is the core of brand strategy. Any brand strategy could incorporate what has been learnt already into a view of how the market will evolve and what strategic response is most appropriate.
Testing new offers	Once the strategy has been decided, the next step is to develop individual elements of the marketing mix and test the brand concept for clarity, credibility and competitiveness with the target market.
Planning and evaluating performance	The setting of the brand budget, establishing the type of support activity needed and measurement of results against objectives. Information on tracking of performance feeds into step one of the brand management process.

7.3 Global or local brand?

We have already considered the issue of global marketing and international expansion earlier in this chapter, but this will have important implications for branding. In particular, should there be one global brand for a product, or a range of different national brands?

In most cases, firms will have to evaluate the benefits of having a single global brand (eg, for advertising synergies) against the benefits of being able to meet specific needs more closely. However, there may also be specific practical issues – for example, if a brand name means something rude or offensive when translated into another language.

7.4 Offline and online branding

IT and the internet have particular implications for branding.

- the domain name is a vital element of the brand.
- brand values are communicated within seconds via the experience of using the brand website.
- online brands may be created in four ways:
  - migrate the traditional brand

- extend the traditional brand
- partner with an existing digital brand
- create a new digital brand

7.4.1 Online brand options

Migrate traditional brand online – This can make sense if the brand is well known and has a strong reputation eg, Marks & Spencer, Orange and Disney. However, there is a risk of jeopardising the brand's good name if the new venture is not successful.

Extend traditional brand – A variant. For example, before the growth of online shopping, when Aspirin could only be bought over the counter in shops and pharmacies, Aspirin's brand positioning statement was 'Aspirin – provides instant pain relief'. However, management felt this didn't work as a meaningful statement in relation to e-commerce, because consumers can't get instant pain relief on the web. So the brand positioning statement was changed to 'Aspirin – your self-help brand', and the website offered 'meaningful health oriented intelligence and self-help'.

Partner with an existing digital brand – Co-branding occurs when two businesses put their brand name on the same product as a joint initiative. This practice is quite common on the internet and has proved to be a good way to build brand recognition and make the product or service more resistant to copying by private label manufacturers.

Create a new digital brand – Because a good name is extremely important, some factors to consider when selecting a new brand name are that it should suggest something about the product (eg, Betfair), be short and memorable, be easy to spell, translate well into other languages and have an available domain name.

8 Valuing brands and intangible assets

Section overview

- Brand value (or brand equity) is a measure of the strength of a brand in the marketplace and its ability to add tangible value to a company through the resulting sales and profits.
- Nonetheless, brand valuation is a very difficult task. However, if a company is considering an acquisition, it will need to assess the value of any brands it will be acquiring. IAS 38, *Intangible Assets* prescribes that internally generated brands are not recognised as intangible assets and so should not be capitalised on a company's statement of financial position.
- IFRS 3, *Business Combinations* and IFRS 13, *Fair Value Measurement* contain rules on valuing intangible assets in a business combination. This includes in intangibles, such as brand assets, which may not have been recognised in a subsidiary's separate financial statements.

8.1 Brand equity and the brand asset

One of the key aspects of branding is that branding and a firm's reputation are linked. The important thing to remember is that a brand is something which **customers** value: it exists in the customer's mind. A brand is the link between a company's activities and the customer's perception.

Brand equity is the asset the marketer builds to ensure continuity of satisfaction for the customer and profit for the supplier. The asset consists of consumer attitudes, distribution and so on. It is thus the public embodiment of the organisation's strategic capability.

A strong brand should help to generate future cash inflows and higher profits for a company. Brands can build market share. They can be used to support higher prices (by differentiation) and enable manufacturers to exercise some control over distributors. And, according to the global director of business valuation at Interbrand London, quoted in the June 2016 edition of ICAEW's *Finance & Management* publication, "an internally generated brand is often one of the most valuable assets owned by [a] business."

Despite all these attributes, however, **internally generated brands are not recognised as intangible assets** under IAS 38, *Intangible Assets*.

8.2 Valuing brand equity

Brand equity is a way of expressing how much a brand is worth to a company. Although internally generated brands cannot be capitalised, IFRS 3, *Business Combinations* provides that brands should be measured as part of the intangible assets acquired in an acquisition. Therefore, in the context of an acquisition, a brand's value will affect the price that a company will be prepared to pay to acquire another company which owns valuable brands.

We will look more generally at acquisitions and company valuation in Business and securities valuation in this Workbook. However, the key point to note here is that the fair value of any internally generated brands should be included when determining the value of the assets acquired, despite not being included in the financial statements of the company being acquired.

Moreover, following the acquisition, the **fair value of the brand acquired** can be capitalised and included in the group accounts, and should subsequently be amortised or reviewed for impairment on an annual basis.

However, the nature of this treatment, and the difference between the way internally generated and acquired brands are accounted for, could make it harder to compare the performance of companies. The value of **acquired brands** is included within consolidated statements of financial position, but the value of internally generated brands remains unaccounted for. This could be a significant issue when comparing groups which have grown organically (and in which brand-building expenditure is written off as incurred) against groups which have grown by acquisition.

8.3 IFRS 3, *Business Combinations*

IFRS 3 contains detailed rules on how to determine the consideration transferred in a business combination and the fair value of the assets acquired and liabilities assumed to ensure the goodwill figure is accurate. The acquirer recognises (separately from goodwill) and measures the identifiable assets acquired and liabilities assumed at their **acquisition-date fair values** (measured in accordance with IFRS 13,*Fair Value Measurement,* see section 8.3.2).

To be eligible for measurement as separately identifiable assets acquired, or liabilities assumed, through the acquisition, the assets and liabilities must:

- meet the definitions of assets and liabilities in the *Conceptual Framework*, and
- be part of what the acquirer and the acquiree (or its former owners) exchanged in the business combination, rather than the result of separate transactions.

These recognition rules **include intangible assets that may not have been recognised in the**

subsidiary's separate financial **statements**, such as brands, licences, trade names, domain names, customer relationships and so on, where the acquiree had developed the assets internally and charged the related costs to expense.

There are exceptions to the recognition and measurement rules, for example reacquired rights (eg, a licence granted to the subsidiary before it became a subsidiary), assets held for sale (treated as per IFRS 5,*Non-current Assets Held for Sale and Discontinued Operations*) and deferred tax assets.

8.3.1 Problems with valuing brands

Although IFRS 3 recognises that the brands acquired should be valued at 'fair value', this remains a very complex task; not least because there are several different methodologies for valuing brands, and there is no general consensus as to which way is best.

Lack of active market

Unlike other assets such as stocks and bonds, there is no active market for brands that could provide comparable values. Almost by definition, one brand should be differentiated from another brand, and thus, the two are not comparable.

Therefore, a number of different models have been developed to try to provide authoritative brand values and to measure the performance of brands.

Research-based approaches: These use consumer research into consumer behaviour and attitudes to assess the relative performance of brands. In particular, these approaches seek to measure how consumers' perceptions influence their purchase behaviour.

However, such measures do not put a financial value on brands so, unless they are integrated with other approaches, they are insufficient for assessing the economic value of brands.

Cost-based approaches: Cost-based approaches define the value of a brand as the aggregation of all the historical costs incurred to bring the brand to its current state; for example, development costs, marketing costs, advertising and other communication costs.

However, the flaw in such approaches is that there is not necessarily any direct correlation between the costs incurred and the value added by the brand. Financial investment can be important in building brand value, provided it is effectively targeted, but if it isn't, it may have no impact at all.

Moreover, the analysis of financial investment needs to go beyond obvious costs such as advertising and promotion, to include R&D, product packaging and design, retail design and employee training.

Premium price: Under the premium price method, the value of the brand is calculated as the net present value (NPV) of the price premiums that a branded product could command over an unbranded or generic equivalent.

However, a difficulty with this method comes from finding an 'unbranded' product to compare to. Today, the majority of products are branded and, in some cases, store 'own-branded' products can be as strong as producer brands, charging similar prices.

Economic use approach: This approach combines marketing and financial principles.

Marketing principle: First, brands help to generate customer demand, which translates into revenue through purchase volume, price and frequency. Second, brands help to retain customer demand in the longer term, through repurchase and loyalty.

Financial principles: The brand's future earnings are identified and then discounted to an

NPV using a discount rate which reflects the risk of the earnings being realised.

Inter brand calculates brand valuations using this kind of approach. Interbrand's procedure for calculating the fair value of a brand can be summarised as follows:

(a) Prepare a five-year forecast for the company's revenues and earnings (NOPAT).

(b) Estimate the percentage of a company's earnings that can be attributed to the brand. This percentage of the company's profit represents the brand's earnings.

(c) Assess the competitive strengths and weaknesses of the brand in order to determine the discount rate that should be applied to reflect the risk profile of the brand's expected future earnings.

(d) Apply the discount rate to the brand's future earnings to calculate an NPV.

However, the difficulty in valuing a brand can be seen by the following statistic (reported in the January 2012 edition of *Economia*):

Although Interbrand had valued the Coca-Cola brand at $72 billion in October 2011, the previous month (September 2011), *Brand Finance* had placed its brand value at $27 billion. Interbrand and Brand Finance are both specialist brand valuation consultancies, so the fact that they can value the same brand so differently suggests there is significant scope for subjectivity in brand valuation.

Moreover, with the advent of social media and its ability to influence public opinion, a brand's value – or a company's reputation more generally – could be affected very rapidly by adverse comments about it.

8.3.2 IFRS 13 and brand valuation

Although we noted in the previous section that a number of methodologies have been developed, the reference to 'fair value' is very important. If a brand, which has been acquired, is being includedas an asset within a consolidated statement of financial position, it needs to be shown at fair value.

IFRS 13 defines fair value as 'the price that would be received to sell an asset, or paid to transfer aliability, in an orderly transaction between market participants at the measurement date'.

IFRS 13 also requires the fair value to be determined on the basis of its 'highest and best use' from amarket participant's perspective. This needs to consider what is physically possible, legally permissible and financially feasible. It also needs to take into account market conditions at the measurement date.

The reference to the market participant's perspective is important. Even if a company acquires a brand but doesn't plan to continue using that brand name (because it intends to merge the acquiredbrand into its own brand), the acquired brand could still have a value – namely the highest and best use that **could** be made of it by a market participant (an alternative buyer of the brand). However, ifthe company which has acquired the brand intends to use it, then (in the absence of any market factors to the contrary) the company's use of the brand can be taken to represent the highest and best use of it.

Nevertheless, the post-acquisition strategy of the acquiring company may affect the subsequent value of the brand. For example, if a brand name becomes tarnished post-acquisition, its commercialvalue will fall. This would be dealt with under the rules of IAS 36, *Impairment of Assets*.

Fair value hierarchy

IFRS 13 requires that entities should maximise the use of relevant observable inputs when determining a fair value, and minimise the use of unobservable inputs. In relation to this, IFRS 13 uses a 'fair value hierarchy' which categories inputs into three levels:

- **Level 1 inputs** – Quoted prices in active markets for identical assets or liabilities that the entity can access at the measurement date.
- **Level 2 inputs** – Inputs (other than quoted market prices included within Level 1) that are observable for the asset or liability, either directly or indirectly.
- **Level 3 inputs** – Unobservable inputs for the asset or liability.

It is not normally possible to identify Level 1 inputs when dealing with brands, due to their unique nature. By definition, if all brands are different, or have different characteristics, it will not be possible to identify any identical assets. Therefore, the fair values of brands will have to be determined using the lower two levels of inputs (although a possible Level 2 input could be the value of similar brands which have already been valued).

Bases of valuation

Within the context of the three levels of the 'fair value hierarchy', and the preference to use observable over unobservable inputs wherever possible, IFRS 13 sets out three possible valuation techniques which could be used when determining the fair value of an asset:

(a) **Market approach** – This uses prices and other relevant information generated by market transactions involving identical or comparable assets.

(b) **Cost approach** – This reflects the amount of cost that would be required to replace the service capacity of an asset (the current replacement cost).

(c) **Income approach** – This converts future amounts (cash flows or income and expenses) generated by an asset to a single, current (discounted) amount, reflecting current market expectations about those future amounts.

Given the unique nature of a brand, and the lack of an active market, it is likely to prove difficult to determine the fair value of a brand using the market approach.

However, the income approach resembles Interbrand's 'economic use' approach we discussed in the previous suggestion and so may prove an appropriate technique for determining the fair value of a brand. For example, if a 'brand name' enables a product to be sold for a higher price than a generic equivalent, or if the strength of the brand enables additional units of a product to be sold, the incremental income from these sales can be used to determine the value of the brand.

8.3.3 Benefits of brand valuation

Companies may find brand valuation useful for the following reasons:

Making decisions on business investments: Treating the brand in a comparable way to other intangible and tangible assets will assist the company when making resource allocation decisions between different asset types (for example, on the basis of ROI requirements).

Organising and optimising the use of different brands in the business, according to the contributions they make to creating economic value.

Making decisions about licensing the brand to subsidiary companies: If subsidiaries are granted a licence, they will be accountable for the brand's management and use. An asset that has to be paid for is likely to be managed more rigorously than one that is free.

Transfer pricing: Assessing fair transfer prices for the use of brands in subsidiary companies.

Acquisition: Most importantly, as we have already noted, brand valuation will be crucial for determining a price for brand assets in the context of an acquisition. Although IAS 38 dictates that internally generated brand value cannot be capitalised in a company's own statement of financial position, if a company is being taken over, then the value of its brands will need to be calculated when assessing the values of the net assets acquired.

Brands can be a key driver of acquisition premiums in mergers and acquisitions, because 'brand' offers the potential to enter new markets and expand into adjacent categories.

Professional skills focus: Concluding, recommending and communicating

Valuing a brand is a subjective and complex task so you will not be asked to determine a precise brand valuation in, for example, the case of an acquisition. However, you may be asked to recommend an approximate value or range of suitable brand values using your technical knowledge of IFRS3 and IFRS13 in conjunction with scenario evidence.

Context example: Microsoft and Skype

In October 2011, Microsoft acquired Skype for $8.6 billion.

Microsoft's Annual Report (2012) disclosed that the major classes of assets and liabilities to which it allocated the purchase price were goodwill of $7.1 billion, identifiable intangible assets of $1.6 billion, and unearned revenue of $222 million.

The goodwill recognised in connection with the acquisition was primarily attributable to Microsoft's expectation of extending Skype's brand and the reach of its networked platform, while also enhancing Microsoft's existing portfolio of real-time communications products and services.

Microsoft already had a longstanding focus and investment in real-time communications across its various platforms, including Lync, Outlook, Messenger, Hotmail and Xbox LIVE.

The intangible assets acquired through the Skype deal were allocated to the following categories:

Intangible assets acquired	$m	Weighted average life
Marketing-related (trade names)	1,249	15 years
Technology-based	275	5 years
Customer-related	114	5 years
Contract-based	10	4 years
Total	**1,648**	**13 years**

The acquisition gave Microsoft a major foothold in the growing market for internet telephony services. In July 2011, Skype had 65 million users daily. Collectively, they spent 700 million minutes per day on Skype audio calls, 300 million minutes a day on Skype video calls, and 30 million minutes a day on calls with ordinary phones.

When the acquisition was announced, Microsoft's CEO said "Skype is a phenomenal product and brand that is loved by hundreds of millions of people around the world… We look forward to working with the Skype team to create new ways for people to stay connected to family, friends, clients and colleagues – anytime, anywhere."

Skype's chief executive was equally positive about the deal's prospects, saying it would help Skype expand its audience from hundreds of millions of users into billions.

Skype's voice over Internet Protocol (VoIP) services let people hold free video and voice calls over the internet. Skype also charges a fee for 'SkypeOut', which lets Skype users dial ordinary phone numbers, and 'SkypeIn', which lets people dial an ordinary phone number that connects through to a Skype account online. Both services are useful for bypassing steep international calling rates using conventional telephone service.

However, critics argued that the price tag – almost three times the $2.75 billion Skype fetched when it was sold to Silver Lake Partners about 18 months earlier – is a sign of just how hungry Microsoft was for growth opportunities; particularly in the mobile phone and internet markets, as its traditional profit engines, such as its Windows software, are showing signs of slowing.

The technology industry's momentum is seen as being fuelled increasingly by consumers, with the rise of social networking sites (such as Facebook) and devices such as Apple's iPad reshaping the computer markets. Therefore big technology companies which had previously relied on businesses for growth are now seeking ways into consumer technologies.

Nevertheless, despite its widespread use, Skype had been slow to convert users into paying customers and to generate meaningful profits. In fact, it made a net loss of $7 million in 2010.

Consequently, a number of commentators were asking at the time of the deal how Microsoft could make Skype's assets work for it, and how it could justify the purchase price.

www.microsoft.com

8.3.4 Brand valuation and assurance

As we have already noted in section 8.2, brand valuation is required under IFRS 3 for all acquisitions made by companies reporting under International Financial Reporting Standards, and brand value is often the most valuable of the identifiable intangible assets. In its paper *Brands: What's in a name* (published in March 2013), PwC notes that, within the consumer products sector, brands are typically the most significant asset recognised in an acquisition deal.

However, the recognition and measurement of intangible assets tends to be one of the most difficult areas of IFRS 3 to apply in practice.

In this respect, carefully identifying the intangibles being acquired and considering their fair value is a vital step in determining the consideration to be paid for an acquisition. And obtaining a fair valuation for the intangible assets being acquired is a crucial part of ensuring that the company making an acquisition pays a fair price for the company it is acquiring.

PwC's paper acknowledges that brand valuation requires significant industry-specific judgement and expertise to ensure supportable measurements are carried out, and to avoid audit surprises and the risk of subsequent restatement.

The issue of determining a fair value for a brand is also likely to be a key part of the due diligence process supporting any acquisition deal.

Not unreasonably, PwC's paper also promotes its own valuation team, and the ways this team can help clients in valuation exercises. However, in this context, it is important to remember the concept of auditor independence; and particularly the fact that an audit firm cannot offer valuation services to its own audit clients.

In addition to accountancy firms there are specialist valuation consultancies, such as Interbrand and Brand Finance, which could carry out valuation exercises.

On its website, Brand Finance states emphatically that, "We value brands, intangible assets and intellectual property in many jurisdictions for accounting, tax, corporate finance and marketing purposes."

The website goes on to explain how Brand Finance uses one or more of the three 'approaches' (market approach, cost approach or income approach) based on the circumstances of a particular assignment. The website concludes that, "Our understanding of your business, the data available, and our technical expertise ensure that your brand will be robustly valued, using the most appropriate Approaches and Methods."

Consequently, a company that is seeking to value a brand (or seeking to gain assurance over the value already implicit in a brand) could either engage a valuation services team at a firm of accountants to carry out this valuation work for them or else it could engage the experience of a specialist consultancy to undertake the work.

Equally, in the context of acquiring a brand, the company considering the acquisition will need to obtain assurance over any assumptions which have been made when arriving at the value – for example, market assumptions, and the impact that market conditions could have on future income generated by the brand.

Due diligence

However, the due diligence relating to brands acquired in acquisitions shouldn't be confined to narrow issues around valuation. It is also important to recognise the role of the brand in the business logic of the deal; for example, to consider how the brand will contribute to the group post- acquisition, and how it fits with the group's overall brand strategy. How will the brand affect the company's ability to achieve its long-term objectives? And what impact will it have on shareholder value in the future?

If these strategic level issues are not considered in advance of a deal, then the acquirer risks overpaying for assets that are not used, or which have little value to it. One of the risks attached to brand valuation comes from valuing a brand in a way which has little or no relation to how a company plans to use it in the post-acquisition business. The result could be a large asset write-down in future, or an equally significant constraint on future business strategy (if possible future strategic options don't 'fit' with the brand).

Equally, if an acquiring company does not research a brand properly, it could risk overpaying for assets which have lost their lustre, or which may not translate effectively into the business environment facing the post-acquisition group. This is particularly important in marketplaces facing the threat of new entrants or the disruption of business models. (We will look at this idea of disruption in more detail in Information strategy in the context of digital transformation.)

In this respect, we can suggest there is a need for some due diligence to take place **before** the final decision to acquire a brand is taken.

Therefore the scope of commercial due diligence, in relation to acquiring brands and intangible assets more generally, needs to cover a number of areas which are important in strategic marketing.

In Strategic choice we highlighted that commercial due diligence considers a target company's market and external economic environment, including analysis of information about the company's main competitors, its marketing history/tactics, competitive advantages, its strengths and weaknesses, and market growth forecasts. In this respect, the due diligence work will resemble a **marketing audit** (which we discussed in section 1 of this chapter).

Brand value and licensing

Another situation in which it may be necessary to gain assurance over the value of a brand is in relation to franchising or licensing. Part of the franchise fee that a franchisor (such as McDonald's) charges its franchisees will relate to the value the franchisee gains from the brand name of the franchise. Therefore, for example, if the franchisor wishes to increase its franchise fees because it believes the brand has become stronger over a period of time, the franchisor's position would be strengthened by having an independent valuation of its brand.

8.4 IAS 38, *Intangible Assets*

Although we have been focusing primarily on brands so far in this chapter, they are not the only intangible assets which could be a source of value or competitive advantage for a company. For example, R&D, and patents are also valuable intangible assets. Refer back to the case example of Microsoft's acquisition of Skype in section 8.3.3. The intangible assets Microsoft acquired included technology-based and customer-related ones, as well as trade names.

IFRS 3 provides a number of examples of intangible assets. In addition to contract-based intangible assets (eg, licensing agreements, franchise agreements) and technology-based assets (eg, patented technology, computer software), IFRS 3 provides a number of marketing-related and customer- related intangible assets. These include:

- trademarks and trade names
- newspaper mastheads
- internet domain names
- non-competition agreements
- customer lists
- customer contracts and related customer relationships

However, it is important that any intangible assets capitalised in a company's financial statements are done so in accordance with IAS 38.

The key points in IAS 38 can be summarised as follows:

- An intangible asset is an identifiable non-monetary asset without physical substance, such as a licence, patent or trademark.
- An intangible asset is identifiable if it is separable (ie, it can be sold, transferred, exchanged, licensed or rented to another party on its own, rather than as part of a business) or it arises from contractual or other legal rights.
- An intangible asset should be recognised if it is probable that future economic benefits

attributable to the asset, will flow to the entity, and the **cost** of the asset can be **measured reliably**.

- At recognition, the intangible should be recognised at cost (purchase price plus directly attributable costs). After initial recognition, an entity can choose between the cost model and the revaluation model. The revaluation model can only be adopted if an active market (as defined) exists for that type of asset.
- An intangible asset (other than goodwill recognised in the acquiree's financial statements) acquired as part of a business combination, should initially be recognised at fair value.
- Internally generated goodwill should not be recognised.
- Expenditure incurred in the research phase of an internally generated intangible asset should be expensed as incurred.
- Expenditure incurred in the development phase of an internally generated intangible

asset must be capitalised, provided certain tightly defined criteria are met. Expenditure, incurred prior to the criteria being met, may not be capitalised retrospectively.

- An intangible asset with a finite useful life should be amortised over its expected useful life, commencing when the asset is available for use in the manner intended by management. A 2017 amendment clarified that revenue-based methods of amortisation are not appropriate.
- Residual values should be assumed to be nil, except in the rare circumstances when an active market exists or there is a commitment by a third party to purchase the asset at the end of its useful life.
- An intangible asset with an indefinite life should not be amortised, but should be reviewed for impairment on an annual basis. There must also be an annual review of whether the indefinite life assessment is still appropriate.
- On disposal of an intangible asset, the gain or loss is recognised in profit or loss.

Crucially, though, IAS 38 stipulates that internally generated brands, mastheads, publishing titles, customer lists and items similar in substance must not be recognised as intangible assets within an individual company. Similarly, customer relationships are not recognised as intangible assets.

Consequently, all expenditure relating to brand building or CRM should be expensed as incurred, because the intangibles they relate to do not meet the criteria for recognition as identifiable intangible assets.

Once again, it is important to note the difference in the way these 'assets' are treated in individual companies (where they are internally generated and have to be expensed as incurred) and in the context of an acquisition (where identifiable intangible assets can be capitalised).

8.4.1 Expected life of intangible assets acquired

The summary points from IAS 38 above highlight that an intangible asset with a finite useful life should be amortised over its expected useful life, while an asset with an indefinite life should not be amortised but should be reviewed for impairment on an annual basis.

Again, in the case example of Microsoft's acquisition of Skype (section 8.3.3 above), the intangible assets acquired have been treated as having a finite life, and have been amortised accordingly.

However, brand assets acquired are often treated as having indefinite lives, and so are reviewed for impairment on a regular basis, rather than being amortised. IAS 36 prescribes that intangible assets

with an indefinite useful life (such as brands) have to be subject to annual impairment tests regardless of whether there are any indications of impairment.

IAS 36 prescribes that assets should be carried at no more than their recoverable amount, where recoverable amount is the higher of:

- value in use
- fair value less costs to sell

However, in the same way that valuing a brand is complex, so is valuing a brand in relation to its ongoing value in use, or fair value.

Intangibles acquired but not used

The issue of impairment and useful lives could be particularly relevant in the context of brand names or logos where a company acquires the brand name or logo but has no intention of using it in the future. However, in such circumstances, the general principles for valuing the asset still apply, and its fair value is determined in accordance with its use by other market participants.

The following short example illustrates this point:

Context example: Logos acquired and not used

AAA acquires BBB. The identifiable net assets of BBB include a trademark, which was the logo previously used by BBB when it was a direct competitor to AAA. AAA has no intention of using BBB's logo in the future. The logo is considered to be separable because it could, for example, be licensed to a third party. It also arises from legal rights. Therefore the logo should be treated as an intangible asset and should be recognised as part of the accounting for the acquisition.

In practice, AAA has no intention of using the logo after the acquisition, so it will not be possible to allocate the logo to any existing cash-generating units. Consequently, it should be identified as a cash-generating unit by itself, because AAA's management intends to exclude it from the other elements of the operating process. The cash inflows related to the logo are nil, because it is no longer being used. However, immediately after acquisition, it would appear reasonable that the fair value less costs to sell are not significantly different from the amount recognised at the date of the acquisition. Therefore an impairment loss is not required.

However, the asset must be amortised over its useful life. The useful life to the entity is the length of time for which holding the logo will be effective in discouraging competition. This is likely to be a fairly short period, since an unused logo loses value very quickly. As AAA acquired the logo with the specific intention of denying competitors the opportunity to use the asset, it appears unlikely that the asset will be sold in the future. Accordingly, the residual value of the asset is zero. As a result, an amortisation charge for the full carrying amount of the asset should be recognised over the useful life – which could be as short as a single accounting period.

(Source: Deloitte: *Business combinations and changes in ownership interests: A guide to the revised IFRS3 and IAS 27*)

Interactive question 8: Acquisition

Scorpion Telecom (Scorpion) operates in the telecommunications industry in Ostland, under the name Smartel which it developed itself. Historically, Scorpion has looked to expand through organic growth, but its growth rate has slowed recently and the board have now decided to acquire Tiger, another mobile phone operator in Ostland.

Scorpion paid £980 million to acquire 100% of Tiger's share capital. The fair value of the net assets acquired, based on Tiger's statement of financial position, was £710 million. An independent brand valuation consultancy valued Tiger's brand, which it had developed itself, at £85 million at the date of acquisition.

Under the terms of the acquisition, the Tiger's business will remain under the Tiger brand for up to one year, after which time Scorpion intends to re-brand it under its own Smartel brand.

Requirement

Identify and explain the key financial reporting issues affecting Scorpion Telecom's consolidated financial statements following the acquisition of Tiger.

See **Answer** at the end of this chapter.

8.5 Intangible assets and intellectual capital

8.5.1 Intangible assets and goodwill

Definitions

Intangible assets: are identifiable non-monetary assets without physical substance that are controlled by the entity as the result of past events and from which the entity expects a flow of future economic benefits.

Goodwill: (acquired) is future economic benefits arising from assets that are not capable of being individually identified and separately recognised.

The above definition of intangible assets distinguishes:

- Intangible assets from tangible assets, by the phrase 'do not have physical substance'.
- Intangible assets from goodwill, by the word 'identifiable'; an identifiable asset is legally defined as one that can be disposed of separately without disposing of a business of the entity.

Certain intangible assets can be recorded at their **historical cost**. Examples include patents and trademarks being recorded at **registration value**, and franchises being recorded at **contract cost**. However, over time, these historical values may become poor reflections of the assets' value in use or of their market value.

8.5.2 Intellectual capital

Definitions

Intellectual capital: is knowledge which can be used to create value. Intellectual capital includes:

- **Human resources**: The collective skills, experience and knowledge of employees.
- **Intellectual assets**: Knowledge which is defined and codified such as a drawing, computer program or collection of data.
- **Intellectual property**: Intellectual assets which can be legally protected, such as patents and copyrights.

As the demand for **knowledge-based products** grows with the changing structure of the global economy, knowledge plays an expanding role in achieving competitive advantage. **Employees** may therefore be extremely valuable to a business, and it has been argued that they should be included in a full assets-based valuation. However, the IASB *Conceptual Framework* has a precise definition of an asset and sets very specific criteria that must be met for an asset to be recognised in the statement of financial position.

The definition of an asset in the *Conceptual Framework* is:

"A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to an entity."

It can be argued that:

- staff are a resource

- there has been a past event – the staff were recruited under an employment contract
- future benefits are expected to flow – staff are expected to generate revenue for the entity either directly or indirectly But:
- Control is very hard to prove. Even though a contract exists, an employee can leave, take time off sick, or not work to the best of their ability.

Also, the recognition criteria from the *Framework* must be met:

- There must be probable economic benefits – it is very hard to guarantee benefits from an employee.
- The asset must be able to be reliably measured – it is very difficult to put an objective value on staff skills.

The principles of valuation discussed below could be applied to all assets, resources or property that are defined as intangible assets or intellectual capital.

8.6 Measurement of intangible assets of an enterprise

The **expanding intellectual capital** of firms accentuates the need for methods of valuation for comparative purposes, for example when an acquisition or buyout is being considered.

Ramona Dzinkowski (in *The measurement and management of intellectual capital*, Management Accounting, February 2000) identifies the following three indicators, which are derived from audited financial statements and are independent of the definitions of intellectual capital adopted by the firm.

- market to book values
- Tobin's 'q'
- calculated intangible value

8.6.1 Market to book values

This method represents the value of a firm's intellectual capital as **the difference between the book value of tangible assets and the market value of the** firm. For example, if a company's market value is £8 million and its book value is £5 million, the £3 million difference is taken to represent the value of the firm's intangible (or intellectual) assets.

Although obviously **simple**, this method's simplicity merely serves to indicate that it fails to take account of **real world complexities.** There may be imperfections in the market valuation, and book values are subject to accounting standards that reflect historical cost and amortisation policies, rather than true market values of tangible non-current assets.

In addition, the accounting valuation does not attempt to value a company as a whole, but rather as a **sum of separate asset values** computed under particular accounting conventions. The market, on the other hand, values the entire company as a **going concern**, following its defined strategy.

8.6.2 Tobin's 'q'

The Nobel prize-winning economist, James Tobin, developed the 'q' method initially as a way of predicting investment behaviour.

'q' is the ratio of the **market capitalisation of the** firm (share price × number of shares) to the

replacement cost of its assets.

If the replacement cost of assets is **lower** than the market capitalisation, **q is greater than unity** and the company is enjoying higher than average returns on its investment ('monopoly rents').

Technology and so-called 'human capital' assets are likely to lead to high q values.

Tobin's 'q' is affected by the same variables influencing market capitalisation as the market to book method. In common with that method, it is used most appropriately to make comparisons of the value of intangible assets of companies within an industry that serve the same markets and have similar tangible non-current assets. As such, these methods could serve as **performance benchmarks** by which to appraise management or corporate strategy.

8.6.3 Calculated intangible values

NCI Research has developed the method of **calculated intangible value (CIV)** for calculating the fair market value of a firm's intangible assets. CIV calculates an 'excess return' on tangible assets. This figure is then used in determining the **proportion of return** attributable to intangible assets.

A step by step approach would be as follows.

(a) Calculate average pre-tax earnings and average year-end tangible asset values, over a time period.

(b) Divide earnings by average assets to get the return on assets.

(c) Multiply the industry average return on assets percentage by the entity's average tangible asset values. Subtract this from the entity's pre-tax earnings to calculate the excess return.

(d) Subtract tax from the excess return to give the after-tax premium attributable to intangible assets.

(e) Calculate the NPV of the premium by dividing it by the entity's cost of capital.

While this seemingly straightforward approach, using readily available information, seems attractive, it does have two problems.

(a) It uses average industry return on assets as a basis for computing excess returns, which may be distorted by extreme values.

(b) The choice of discount rate to apply to the excess returns to value the intangible asset needs to be made with care. To ensure comparability between companies and industries, some sort of average cost of capital should perhaps be applied. This, again, has the potential problems of distortion.

8.7 Valuation of individual intangible assets

8.7.1 Relief from royalties method

This method involves trying to determine:

- the value obtainable from licensing out the right to exploit the intangible asset to a third party; or
- the royalties that the owner of the intangible asset is relieved from paying through being the owner, rather than the licensee.

A **notional royalty rate** is estimated as a percentage of revenue expected to be generated by the intangible asset. The estimated royalty stream can then be **capitalised**, for example by discounting at a risk-free market rate, to find an estimated market value.

This relatively simple valuation method is easiest to apply if the intangible asset is already subject to licensing agreements. If it is not, the valuer might reach an appropriate figure from other comparable licensing arrangements.

8.7.2 Premium profits method

The premium profits method is often used for **brands**. It bases the valuation on capitalisation of the **extra profits generated** by the brand or other intangible asset in excess of profits made by businesses lacking the intangible asset or brand.

The premium profits specifically attributable to the brand or other intangible asset may be estimated (for example) by comparing the price of branded products and unbranded products. The estimated premium profits can then be capitalised by discounting at a risk-adjusted market rate.

8.7.3 Capitalisation of earnings method

With the capitalised earnings method, the **maintainable earnings accruing to the intangible asset** are estimated. An **earnings multiple** is then applied to the earnings, taking account of expected risks and rewards, including the prospects for future earnings growth and the risks involved. This method of valuation is often used to value **publishing titles**.

8.7.4 Comparison with market transactions method

This method looks at **actual market transactions** in similar intangible assets. A multiple of revenue or earnings from the intangible asset might then be derived from a similar market transaction.

A problem with this method is that many **intangible assets are unique** and it may therefore be difficult to identify 'similar' market transactions, although this might be done by examining acquisitions and disposals of businesses that include similar intangible assets.

The method might be used alongside other valuation methods, to provide a comparison.

8.7.5 Compliance with IFRS 13

As we discussed in section 8.2, the fair value of any intangible assets shown in a company's financial statements needs to be measured in accordance with IFRS 13.

However, as we saw earlier, the standard permits fair value to be calculated using a market approach, a cost approach or an income approach.

Summary

Tick off

Marketing and strategic management are necessarily closely linked, because any corporate plan has to involve products/services and customers.	☐
Specific marketing strategies are determined within the context of the overall corporate strategy. To be effective, marketing plans must be aligned with the plans for other functions within an organisation (eg, if marketing plans emphasise 'quality,' then 'quality' must be a priority for other functions in the organisation).	☐
An organisation's value proposition dictates how the organisation will serve its customers – how it will differentiate itself from its competitors, and how/where it will position itself in the marketplace. The value proposition also needs to inform customers why they should buy the organisation's brand rather than a competitor's.	☐
The range of products and services to consumers, coupled with diversity of consumers' needs, mean that very few products or services can satisfy all the consumers in a market. Marketers therefore need to identify particular market segments (segmentation) which can be reached with a distinct marketing mix.	☐
Having identified the different segments in a market, an organisation has to decide which segments to target (targeting), and then has to position its product or service in a way which earns it a distinctive place within its target market.	☐
Positioning should be used to develop a strong and distinctive image of a company or brand in the mind of the target customers, thereby differentiating the company from its competitors.	☐
An organisation looks to create a distinctive image for a product or brand through the marketing mix applied to it. Applying a unique and appropriate mix of the 4 Ps (product, price, place, and promotion) allows an organisation to compete more effectively than its competitors, thereby helping to generate a sustainable profit.	☐
The internet has had a significant impact on the marketing mix (eg, making price more competitive) and organisations need to recognise this when developing their marketing strategies, particularly strategies for online marketing.	☐
Organisations hold and manage ever-increasing amounts of data about sales, revenues, customers, competitors. Data warehousing and data mining tools can help organisations manage and use this data.	☐

Increased recognition of the importance of customer retention has led organisations to focus more on customer relationship management. Effective customer relationship management can help an organisation to implement a relationship market strategy, using marketing resources to maintain and develop existing customers, rather than simply to attract new customers.	☐
Web 2.0 technologies have changed the way users interact with content and with each other. Although Web 2.0 technologies provide opportunities for organisations to distribute information about their products or services, more importantly they invite customer feedback and can even lead to customer participation in the creation of products or services.	☐
In many cases, an organisation may need to raise additional finance to achieve growth. Potential investors are likely to scrutinise an organisation's business plan before making a decision about whether to invest or not.	☐
Strong branding is crucial for a company's long-term strategic success (eg, by shaping customer perceptions and purchasing behaviour, and/or acting as a barrier to entry). Brand management may therefore be a key capability for a company.	☐
In order for a company to be successful, its strategy and operations need to be aligned to its brand(s). Brands will ultimately only succeed if they are capable of regularly delivering what they promise. Therefore operational processes, and staff, play a key role in supporting a brand.	☐
Although a strong brand should help to generate future cash inflows and higher profits for a company, internally generated brands are not recognised as intangible assets under IAS 38, Intangible Assets.	☐
However, a brand's value could affect the price a company is prepared to pay in order to acquire another company which owns valuable brands. Nevertheless, valuing a brand (at fair value, in line with IFRS 13) is very difficult because there is not an active market for brands and they are, by definition, unique.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What is a market-orientated organisation? (Topic 1)
2.	How can a market be segmented? (Topic 2)
3.	What is a positioning strategy and how can it be implemented? (Topic 3)
4.	What is the marketing mix for products and services? (Topic 4)
5.	How can Big Data be used for marketing? (Topic 5)
6.	What is Customer Relationship Management? (Topic 5)
7.	Why are brands important? (Topic 6-8)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
3 IAT	The first part of the question tests your knowledge of the difference between the marketing characteristics of traditional marketing media (eg, advertising and direct mail) and electronic media (eg, internet). It is important that you don't simply re-write syllabus content, instead you should explain your points in the context of the scenario. The second part of the question requires you to apply electronic marketing to the company in the scenario in order to vary the marketing mix.
5 Velo plc and Pedal Co	To attempt this question, you need to ensure your knowledge of valuing brands is up to date, so review this section in the chapter first. Corporate Reporting represents 15-20% of the SBM&L syllabus so it is important to practise SBM&L style Corporate Reporting questions.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Technical reference

1 IFRS 15, *Revenue from Contracts with Customers*

- Identifies how and when an entity will recognise revenue. The core principle of IFRS 15 is that revenue should depict the transfer of promised goods or services to customers, and the amount recognised should reflect the consideration to which the entity expects to be entitled in exchange for those goods or services. This core principle is delivered through a five step model:
  - identify the contract(s) with the customer
  - identify the performance obligations in the contract
  - determine the transaction price
  - allocate the transaction price to the performance obligations in the contract
  - recognise revenue when (or as) the entity satisfies a performance obligation

2 IFRS 3, *Business Combinations*

- Outlines the accounting when an acquirer obtains control of a business through an acquisition. These business combinations are accounted for using the 'acquisition method' which generally requires the assets acquired, and the liabilities assumed, to be measured at their fair values at the acquisition date.

3 IFRS 13, *Fair Value Measurement*

- Defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The standard defines fair value on the basis of an 'exit price' notion and uses a 'fair value hierarchy' which results in a market-based measurement rather than an entity-specific one.

4 IAS 38, *Intangible Assets*

- Outlines the accounting requirements for intangible assets, which are non-monetary assets which are without physical substance but which are identifiable (either being separable or arising from contractual or other legal rights). Intangible assets are capitalised and amortised on a systematic basis over their useful lives, unless an asset has an indefinite useful life, in which case it is not amortised.

5 IAS 36, *Impairment of Assets*

- Seeks to ensure that an entity's assets are not carried at more than their recoverable amount (being the higher of fair value less costs of disposal and value in use). An annual impairment test is required for goodwill and certain intangible assets, but for the majority of assets an impairment test is only required where there is an indication of impairment of an asset.

Self-test questions

Answer the following questions.

1 BB

BB is an established publisher of training manuals and other training material for members of professional bodies and for personal development. The products are sold all over the world by major bookshops and online book vendors. Although the company has a website, it does not sell directly to colleges or private individuals.

Currently, all stages of the production and distribution processes are conducted within mainland Europe. All stages of these processes are conducted in-house by BB.

Over the past five years, sales of BB's training manuals have declined and the company is expecting to make little, if any, profit in the coming year.

BB's manuals are of the traditional style; that is, an extensive amount of printed material bound in a single volume. An initial market study has shown that BB's training manuals do not appeal to readers, because they are under heavy time pressure and are unable to devote sufficient time to reading these manuals. The manuals, because of their bulk, are also considered to be difficult to work with.

There are three other direct competitors in the market, which is highly competitive. In this market the products are difficult to differentiate; and profit margins are low. Although BB has no firm evidence, the directors believe that all three of their competitors are more profitable than BB. However, the directors are not aware that any of the competitors are operating in a different way to BB, and their training manuals are virtually identical to those offered by BB.

The directors of BB believe that there are product development and market development opportunities that could be pursued. They also believe that the cost structure of the products could be improved. However, they are prepared to consider any reasonable alternative strategy that will improve the competitive position of the company.

Requirements

1.1 Explain how more detailed knowledge about the company's competitors would help the directors of BB.

1.2 With reference to Ansoff's matrix, evaluate three strategies that would enable BB to be more competitive.

2 HappyStay Co

HappyStay Co owns and operates a number of hotels across the south of England. The company is preparing its financial statements for the year ended 30 September 20X8, but has identified the following issue.

HappyStay has recently started a marketing initiative to try to encourage repeat bookings among customers. Whenever customers stay in one of the company's hotels, they are issued with a voucher which entitles them to a £40 discount on a subsequent booking within six months of their stay.

HappyStay's experience from running similar initiatives in the past is that only 25% of the vouchers will be redeemed by customers.

The marketing manager has estimated that at the year-end there were vouchers worth £50 million still eligible for discount. The income from room sales for the year was £650 million.

Unfortunately, the financial controller is currently ill, and a more junior accountant has been asked to start preparing the year end accounts in her absence. The accountant is unsure how to report the income from room sales in the financial statements.

Requirement

Advise HappyStay Co how the room income and vouchers should be dealt with in its financial statements, in accordance with IFRS 15, *Revenue from Contracts with Customers*.

3 The Institute of Accountancy Training (IAT)

The Institute of Accountancy Training (IAT) offers professional accountancy education and training courses. It currently runs classroom-based training courses preparing candidates for professional examinations in eight worldwide centres. Three of these centres are also used for delivering continuing professional development (CPD) courses to qualified accountants. However, only about 30% of the advertised CPD courses and seminars actually run. The rest are cancelled through not having enough participants to make them economically viable.

IAT has developed a comprehensive set of course manuals to support the preparation of its candidates for professional examinations. There is a course manual for every examination paper in the professional examination scheme. As well as being used on its classroom-based courses, these course manuals are available for purchase over the internet. The complete set of manuals for a professional examinations scheme costs £200 and the website has a secure payment facility which allows this to be paid by credit card. Once purchased, the manuals may be downloaded or they may be sent on a CD to the home address of the purchaser. It is only possible to purchase the complete set of manuals for the scheme, not individual manuals for particular examinations. To help the student decide if he or she wishes to buy the complete manual set, the website has extracts from a sample course manual. This sample may be accessed, viewed and printed once a student has registered their email address, name and address on the website.

IAT has recently won a contract to supply professional accountancy training to a global accounting company. All students working for this company will now be trained by IAT at one of its worldwide centres.

Website (The IAT website has the following functionality)

Who we are: A short description of the company and its products and services.

Professional education courses: Course dates, locations and standard fees for professional examination courses. This schedule of courses is printable.

Continuing professional development: Course dates, locations and standard fees for CPD courses and seminars. This schedule is also printable.

CPD catalogue: Detailed course and seminar descriptions for CPD courses and seminars.

Downloadable study material: Extracts from a sample course manual. Visitors to the site wishing to access this material must register their email address, name and address. 5,500 people registered last year to download study material.

Purchase study material: Secure purchase of a complete manual set for the professional scheme. Payment is by credit card. On completion of successful payment, the visitor is able to download the manuals or to request them to be shipped to a certain address on a CD. At present, 10% of the people who view downloadable study material proceed to purchase.

Who to contact: A list of relevant contact details for booking professional training courses or CPD courses and seminars. It provides the name, email address, fax number, telephone number and address of a contact at each of the eight worldwide centres.

Marketing strategy

The marketing manager of IAT has traditionally used magazines, newspapers and direct mail to promote its courses and products. Direct mail is primarily used for sending printed course catalogues to potential customers for CPD courses and seminars. However, she is now keen to develop the potential of the internet and to increase investment in this medium at the expense of the traditional marketing media. Table 1 shows the percentage allocation of her budget for 20X8, compared with 20X7. The actual budget has only been increased by 3% in 20X8.

Table 1 – Percentage allocation of marketing budget (20X7–20X8)

	20X8	**20X7**
Advertising	30%	40%
Direct mail	10%	30%
Sponsorship	10%	10%
Internet	50%	20%

Requirements

3.1 Explain, in the context of IAT, how the marketing characteristics of electronic media (such as the internet) differ from those of traditional marketing media such as advertising and direct mail.

3.2 Evaluate how the marketing manager might use electronic marketing (including the internet) to vary the marketing mix at IAT.

4 CFE

CFE was established in 20X1, and operates a chain of 40 coffee shops across Teeland. It is a privately owned company.

The number of coffee shops in Teeland has increased rapidly over the last decade, and there are now thousands of branded coffee shops operating across the country. Their total turnover now exceeds

$1 billion. Although the majority of the branded shops are run by internationally recognised multi- national companies, CFE only operates in Teeland.

The range of products offered by the shops has increased over the last few years, in response to customer demand for a larger range of foods and better-quality products. The branded coffee shops have been able to command higher than average prices for their products by using quality and service as differentiators. Price appears not to be a particularly sensitive factor, although CFE's prices are largely the same as those charged by the branded shops run by the multinational companies.

In 20X1, when CFE first opened, most other coffee shops only served a selection of hot and cold drinks and a small range of snacks and cakes. However, right from the outset, CFE also sold a range of freshly made sandwiches and other food items, all made from high-quality ingredients.

All CFE's shops operate from rented premises but, before opening, they are fitted out to ensure they have the same high standard of shop design and fittings. Having a high-quality shop design creates a good atmosphere, and makes the coffee shops a popular place for people to meet.

CFE's shops generate a high turnover. However, profitability has been lower than some of its competitors. Reasons for this include: high rental costs for some of its city centre shops; high staff costs (as high-quality customer service remains a priority for CFE, so it pays above the industry average); and lower than average gross margins on some products (due to the high procurement cost of the quality ingredients chosen).

CFE also earns lower margins than some of its rivals on its coffee products because over 80% of its coffee beans are procured from suppliers who deal only with 'Fair Trade' coffee producers. Some of the regional managers have argued that their shops would be more profitable if they stopped using 'Fair Trade' coffee, but CFE's directors remain adamant that the company will continue to buy coffee from Fair Trade suppliers wherever possible, because it is a socially responsible company.

At a recent board meeting, the marketing director said he thought CFE should introduce a loyalty card scheme, and for every six hot drinks loyalty card holders buy, they get their next one free. He argued the card scheme will help CFE's profitability by improving customer loyalty and strengthening the brand.

The finance director said that CFE should also consider whether it could increase the prices of its coffee products in order to increase the margins it earns on them.

A summary of CFE's trading results for the last year is shown below:

	Coffee	**Other drinks**	**Food and snacks**	**Total**
	\$'000	**\$'000**	**\$'000**	**\$'000**
Revenue	19,517	5,541	32,322	57,380
Cost of sales	(3,767)	(2,638)	(13,975)	(20,380)
Gross margin	15,750	2,903	18,347	37,000
Operating profit				5,606

The largest branded coffee shop in Teeland (which has 130 shops) generated revenues of \$180 million in the last year, with a gross margin of \$124 million and operating profit of \$22.5 million.

Requirements

4.1 With reference to the marketing director's proposal to introduce a loyalty card scheme, evaluate the importance of brand awareness on CFE's business performance.

4.2 Discuss the importance of external information in relation to the finance director's suggestion for CFE to increase the prices of its coffee products.

5 Velo plc and Pedal Co

Velo plc and Pedal Co are both well-established retailers of cycling products.

Pedal Co is a family-run company, but the shareholders decided to sell the company, and Velo plc has bought 100% of the issued share capital for cash consideration of £14.5 million (excluding transaction costs).

Velo plc views acquisition as an important source of growth, and of operating synergies, and it has previously acquired several other family-run companies, like Pedal Co.

Pedal Co owned the trade name 'Pedal Power' which is highly regarded in the marketplace, and – during its life time – Pedal Co ran a number of marketing campaigns to promote this trade name. Pedal Co generated the 'Pedal Power' trade name itself, but a firm of valuation experts have determined its fair value – using an income approach – to be £3.0 million.

The fair value (in £m) of Pedal Co's net assets at the date of acquisition was £1.7 million, made up of:

Inventories	0.8
Trade and other receivables	3.2
Cash	0.6
Trade and other payables	(2.9)

Prior to the acquisition, Velo plc's statement of financial position showed its intangible assets (net book value) as £374 million.

Requirement

Explain, with appropriate calculations, the effect that acquiring Pedal Co will have on Velo plc's intangible assets.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Competitors are one of the main elements in a company's immediate **task environment** and it is essential that CCC should acquire as much information as possible about them, especially as the market is now maturing.

The benefits of undertaking competitor analysis and monitoring and analysing information about competitors are as follows:

Understand the basis of competitive advantage

If CCC analyses its value chain compared to its competitors', it can assess the ways in which each firm adds value for its customers. Given that the market is becoming increasingly competitive, such analysis will be useful for CCC in determining whether its current competitive strategy is sustainable, and which of its processes will need improving to enhance competitiveness.

Understand competitors' strategies

If CCC analyses its competitors' current strategies and how they have developed over time, this may give it some insight into its competitors' future strategies. This could help CCC plan how to compete and preserve its market position, rather than simply having to react to its competitors' actions.

Identify risk of new entrants

As well as using it to analyse current competitors, CCC can use competitor analysis to identify possible new entrants into the specialist communications equipment market. Given that the market is reaching a level of overcapacity, this could be useful to CCC to assess how barriers to entry could be strengthened to deter the potential new entrants from joining the industry.

Develop future strategies

CCC can use the information it finds out about its competitors to help determine its own strategy. CCC is currently the market leader and so it needs to develop strategies to maintain its market share in a changing and increasingly competitive industry. For example, could CCC afford to reduce prices in order to increase market share, or are competitors likely to respond in kind, meaning CCC doesn't increase market share, but instead both CCC and its rivals are left with lower margins? Are there certain competitors who are likely to be more aggressive than others, in which case should CCC target growth in specific sectors of the market to avoid those competitors? Competitor analysis could help answer these questions and thereby help CCC determine its business strategy.

Improve forecasting

By improving CCC's understanding of its competitors' behaviour and how it will affect CCC's sales, competitor analysis will also enable CCC to improve its forecasts and business plans.

Answer to Interactive question 2

Segmentation would be Lucy's first step towards a more active relationship with her existing and potential customers. If she knew who they were in more detail, she could design her market offering in a way that would improve her own **efficiency** while also providing increased **customer satisfaction**.

The simplest form of segmentation is probably **geographical**. Lucy's potential market could be very simply split into domestic and overseas, for instance. Indeed, she probably does this already, in a sense, since she must make appropriate arrangements for the extra complications of shipping to foreign customers. Geographical segmentation would be necessary if Lucy wished to sell in other ways than via the internet, perhaps by issuing catalogues, since the styles of knitwear offered would have to appeal to varying local tastes.

Geographical segmentation becomes much more useful when it is combined with demographic information. This **geo-demographic** segmentation would enable Lucy to target segments defined by such variables as place, age, sex, income and social class. A consideration of these variables might, for instance, lead her to concentrate her marketing effort on older, affluent people in specific metropolitan areas. This would have immediate implications for design, quality, promotion, price and distribution.

Psychographic segmentation analyses the market according to personality and lifestyle. This might be difficult for Lucy to use, but if she could, perhaps by continuing to employ her marketing consultant, it might offer important advantages in the areas of design and promotion in particular.

A further segmentation variable is customer **behaviour**. This includes such matters as sensitivity to changes in the marketing mix variables, purchase frequency and magnitude and how the product is used. This approach might be useful to Lucy. For example, she might find that some of her designs are frequently bought by women for their partners or families. This might have important implications for design and sizing.

The benefit of accurate market segmentation is that it permits a more precise specification of the marketing mix variables, so that they are shaped to conform to the needs of the target segment or segments.

Product. Different segments will probably require different products. When the size of each segment, its product requirements and their costs are known, it will be possible both to estimate the most profitable segment to attack and to specify fairly precisely the nature of the products needed to do so. Lucy might find, for instance, that she needed to adjust her designs to make her range more recognisable and coherent.

Price. Pricing decisions are fundamental to trade and very difficult to take. It is very easy to set prices too high, so that customers are put off, or too low, so that potential profit is lost. The problem is compounded by the complex messages about quality, exclusivity and value that can be sent by price levels and changes to them. At the moment, Lucy's products are relatively cheap and this is preventing her from generating the funds needed for expansion: she may find that she can charge more for some of her knitwear.

Promotion. Lucy's consultant has identified her promotion efforts as insufficiently focused, which has led to a diffuse image and little brand awareness. Detailed knowledge of the characteristics of her target segments will allow Lucy to develop the accuracy of her promotion. She may find, for example, that a large market exists that is unwilling to use the internet at all, and so remains in ignorance of her products.

Place. Lucy's distribution is currently largely via her website. This limits her potential market to those who are both confident in the use of computers and interested in original design knitwear. It is likely that a much larger market could be served through a more traditional approach using prestige clothing outlets. This could be established by careful consideration of the results of the segmentation exercise.

Answer to Interactive question 3

3.1 Costs to complete are £90,000

This is a contract with performance obligations satisfied over time and 33% of the performance has been completed to date.

Revenue can be recognised on the output basis by the percentage of completion method, so 33% of £210,000 = £69,300.

Note: The project is profitable overall (total revenue £210,000, total costs £135,000), so no provision for a contract loss need be made.

3.2 Costs to complete cannot be estimated reliably

As the outcome of the overall contract cannot be estimated reliably, revenue is recognised to the extent of the costs incurred which are recoverable, ie, £40,000. The current period therefore recognises the contract loss to date of £5,000.

Answer to Interactive question 4

The basic price of the contract is £10 million, with the bonus £2 million only being earned if the building is completed within 24 months.

The profit margin should be based on the 'core' price (£10 million). Therefore, the budgeted total cost for the project was £7 million (to give a 30% profit margin).

At the end of 20X5, Stry has spent £4.2 million. Using the input method, the project is 60% complete:

Therefore, it might appear more prudent for Stry to record revenue for the contract on the basis of the output method, rather than the input method.

Another potential factor to consider is whether the actual total expected cost will be higher than the

£7.0 million originally budgeted. The operations director has hinted that actual costs may exceed budget. If the project is already running over budget, this could mean that, in reality, the project is less than 60% complete, because the 'actual' total expected cost will be higher than £7.0 million. For example, if the revised expected cost is £7.5 million, this means the project is only 56% complete (£4.2m / £7.5m).

Answer to Interactive question 5

Tutorial Note

The solution below is only a suggested solution showing some of the points you could have made. You may have thought of others – and (in an exam situation) you would receive credit forvalid points you make, even if they are not included in the suggested solution.

Visits and unique visitors

The number of visits is 7.5 times higher than the number of unique visitors, indicating that potential customers are likely to make repeat visits to the site. This may be to obtain information (for example to check availability of products, or to compare the price of a Klebo product against a competitor's products) before making a purchase. Tracking the customers who make multiple visits (and tracking the products they visit) would mean that Klebo could then target its marketing to them, to try to convert them from simply visiting the website to buying something from it.

However, the ratio between visits and visitors could also be influenced by the number of customers making repeat purchases. Again though, identifying these customers could be valuable to Klebo so that it can encourage customer loyalty, and maximise the number of further purchases they make in future.

The timing of visits is important in terms of assessing the impact of the marketing campaign. However, the uplift in December is likely to reflect seasonal (Christmas) shoppers, as much as the campaign in November.

Page views

The data shows that on each visit, on average, a visitor looks at between 3 and 4 pages (3.7). However, we also know that almost half of visits (47%) involve a visitor only looking at one page ('bouncing'), which pulls the average downwards.

It could be useful to identify which pages are most popular, because this could indicate the type of products which potential customers value most. For example, if Klebo displays these prominently on its website, this could help to reduce the bounce rate.

Bounce rate

As a more general issue, Klebo should be looking to make its bounce rate as low as possible. If visitors 'bounce', this suggests that they didn't find what they were looking for – for example, because it wasn't available, or because the website wasn't user friendly so they didn't want to explore further.

An important issue for Klebo in this respect could be to try to understand why visitors 'bounce', for example by trialling different layouts for landing pages and seeing how visitors respond to them.

The variation in bounce rates during the year is also important, because bounce rate spiked at around 55% in May (ie, at the time of the first marketing campaign). This is likely to undermine the effectiveness of the campaign – because it suggests that a number of potential customers attracted to the site by the marketing campaign then left it again immediately, without showing any interest in Klebo's products.

Abandonment rate

The abandonment rate, like the bounce rate, is an indicator which Klebo will want to be as low as possible – because, in effect, it measures lost sales.

Again, an important issue will be to identify the point at which customers choose to terminate their purchase, and – related to this – why customers are not completing the purchase; for example, because they are presented with unexpected fees or delivery costs; or because the payment process itself was taking too long, or because they had concerns about the payment security.

If Klebo can identify the reasons why it is losing sales, it can then make specific improvements to tackle those issues.

Transaction value

The average transaction value was £48.26, but it is likely that some customers made orders considerably higher than that. These customers could be ones which it is beneficial for Klebo to target during future advertising and promotion campaigns. In addition, if the transaction values are higher because customers are buying a number of products together, identifying trends in these product bundles could be useful for future marketing. For example, if there are products which customers buy together, then when a customer buys one of the products, the website could suggest other products they might like to buy with it.

Purchases per transaction

The average number of purchases per transaction was just under 1.5. The number of purchases per transaction could be a useful performance indicator to look at in conjunction with transaction value – because it seems reasonable to expect that increasing the number of purchases customers make in a transaction will lead to an increase in average transaction values. In turn, this could also be expected to lead to an increase in revenues, if customers perceive that shopping through Klebo is a convenient way to get a number of different products.

Answer to Interactive question 6

	A	B	C	D
13	Calculations	**FMC**	**GMC**	**HMC**
14	Sales revenues £m (before discounts/returns)	28,000,000	14,000,000	17,000,000
15	Forecast margin @ 18%	5,040,000	2,520,000	3,060,000
16	Discounts	2,240,000	980,000	850,000
17	Sales visits costs	9,000	7,500	10,500
18	Purchase order costs	8,400	9,975	8,050
19	Customisation cost	130,875	183,225	863,775
20	Replacing faulty goods (sales returns @ 82% cost of sales)	482,160	206,640	460,020
21	Customer profit	2,169,565	1,132,660	867,655
22	RANK	1 [1]	2	3
23	Customer profit margin %	7.7%	8.1%	5.1%
24	RANK	2 [2]	1	3

[1] =RANK(B21,$B$21:$D$21). The formula can be copied in C22:D22.

[2] =RANK(B23,$B$23:$D$23). The formula can be copied in C24:D24.

Answer to Interactive question 7

Substantiating assertions about the level of brand investment his business requires:

(1) Where there is no physical product, the service may only be differentiated by brand. Whereas construction and engineering have tangible products, gaming is a service business.

(2) In a competitive market, building brand loyalty may help retain customers. It is likely to be very easy for customers to switch between different gaming companies (online) so continuing promotions to retain 'share of mind' are likely to be very important for gaming companies.

(3) A strong brand reduces the risk when launching associated/new services. The gaming industry is likely to be at an earlier stage in its life cycle than the others, so could offer more opportunities for growth (eg, through offering new products/services). A strong brand could help improve CPH's chances of success when introducing any such new products or services.

Answer to Interactive question 8

Consolidation – Because Scorpion has acquired 100% of Tiger, Tiger becomes a subsidiary company and so will need to be consolidated into Scorpion's group financial statements. In accordance with IFRS 3, the fair value of Tiger's assets and liabilities at the date of acquisition should be consolidated into the group statement of financial position.

As the Tiger brand is remaining in use for the first year, it seems likely that Tiger will continue trading in its own right during this time. However, any post-acquisition profits (or losses) that it makes will also need to be consolidated into the Scorpion group's consolidated statement of profit or loss.

Brand valuation – Part of the £980 million paid to Tiger includes the value of the Tiger brand. Although the brand will be given up in one year (or less), at which time it will have no value, at the point of acquisition it still has a value.

As the value of £85 million has been calculated by an independent brand valuation consultancy, it seems reasonable to assume that it represents its fair value at the date of acquisition, as defined in IFRS 13.

In accordance with IAS 38, the value of the brand would not have been included in Tiger's own statement of financial position, because it was internally generated. However, during the acquisition accounting in Scorpion's consolidated statement of financial position, it will need to recognise the Tiger brand as a separately identified asset, at its fair value of £85 million.

Amortisation – The Tiger brand should then be amortised to a residual value of zero over the next year, as Scorpion proceeds with the re-branding exercise.

Goodwill – In accordance with IFRS 3, the difference between the consideration (£980 million) and the total of the assets acquired (including the brand) should be recognised as goodwill in Scorpion's consolidated statement of financial position. In this case, the goodwill is £185 million (£980m –

£710m – £85m).

Answers to Self-test questions

1 BB

1.1 Strategy development – If BB's directors gain an understanding of their competitors' strategies, they can use this to help develop their own strategies.

If the directors understand their **competitors' strengths and weaknesses,** this understanding could highlight areas for BB to focus on. For example, BB could target competitors' weaknesses in order to try to win business from them and increase its own market share.

Basis of competitive advantage – Equally, if BB understands the basis on which its competitors are competing and their areas of competitive advantages, this can also help it determine the basis of its own strategy. For example, if one of the competitors is aiming to be the cost leader, BB could look at that competitor's processes and see if there are any efficiencies or improvements BB could introduce to reduce its own cost structure.

Increased profitability – BB's directors believe that the three direct competitors are currently more profitable than BB, although the directors have no evidence to support this. By improving their knowledge about the competitors, BB's directors will be able to establish for certain how profitable they are.

The directors may also be able to establish why BB's competitors are more profitable than it is. For example, if the competitors have outsourced any of their production and distribution processes, or relocated them to cheaper locations, this could suggest possible ways for BB to increase its own profitability.

Responding to competitors' strategies – BB could also benefit from trying to gain some knowledge about its competitors' future strategies as well as their current strategies. In this way, BB should have a better chance of being able to respond to new products or innovations which the competitors are planning to introduce, thereby maintaining BB's competitiveness in the marketplace. Although at the moment all the training companies seem to offer very similar training manuals, it is possible some of the competitors could be developing new products – for example, e-learning materials which students would find more appealing and more accessible than the traditional printed materials.

However, it is important that BB does not simply imitate competitors' strategies but develops its own strategies to increase competitiveness, based on its own competences and resources.

Competitors' responses – Gaining competitor intelligence can also help BB's directors to gauge competitors' likely responses to any new strategies which BB is planning to introduce.

Note: The question asks you to evaluate **three** strategies only. However, for tutorial purposes, we have included four possible strategies in our answer because these are all potential strategies you could have evaluated and which would have been plausible strategies to consider in this scenario.

Currently, BB only produces paper-based manuals, and it sells these through bookshops and online vendors, not directly to students. BB could look to increase its competitiveness by reviewing its product range and the downstream supply chain through which it makes its products available to students.

(1) Product format (product development) – Currently, BB will incur significant printing and production costs associated with publishing its training manuals. However, an alternative strategy would be to offer the manuals in electronic format. For example, the manuals could be sold as e-books or in a downloadable online format.

Suitability – Reduced cost – By producing the manuals in electronic format, BB's **costs would be significantly reduced**: it wouldn't have to buy paper to print the manuals on, or incur packaging and freight costs for distributing the manuals to suppliers. As a result, BB should also be able to sell its electronic books at a lower price than the hard copy manuals (and its competitors' manuals), thereby possibly enabling it to capture market share from its competitors.

Feasibility – Converting an existing hard copy manual to an e-book or a downloadable file is a relatively simple process, and so there shouldn't be any problems as to the feasibility of this strategy, although BB may outsource the actual production of the e-products to a specialist producer.

Suitability – Usability – However, if the 'new' products are simply electronic versions of the existing manuals, this will not address the problem that the content is time consuming to read, and students do not have time to read them. In this respect, BB might consider allowing students to buy individual chapters of the downloadable manuals at any time, rather than having to buy the whole text in one bundle.

Acceptability – However, there is a danger that allowing students to buy single chapters may cannibalise sales if students choose to only buy a small number of chapters at any time (whereas they had previously bought a whole manual).

Acceptability – This strategy opens up the possibility that the manuals will be illegally reproduced, thereby damaging BB's sales growth. There is a risk that a student could buy a single copy of the downloadable text, and then distribute it to friends and colleagues studying for the same courses, meaning that those friends and colleagues won't buy the manuals themselves. The directors may consider that the extent of this risk may make this strategy unacceptable.

(2) Product range (product development) – At the moment, BB seems only to produce a single type of manual which requires a lot of reading time to work through. However, as an alternative to this manual, BB could develop some more interactive or user-friendly online material. For example, BB could develop some online tutorials which only cover the key topics from each chapter of the manuals, along with case studies and examples for students to work through to reinforce their understanding of subject areas.

Suitability – The readers have said that BB's existing manuals are very time consuming to read, but time is often scarce for them. Therefore, an alternative product which is less time consuming and more user-friendly should prove attractive to them. Users may find a product which focuses only on the key topics more approachable than one that covers everything in great detail.

In addition, because the new product is also online, it should be easier for users to work with than the bulky hard copy manuals which were considered impractical. In time, the material could even be produced as a mobile phone application, making it even more convenient for students to access.

Feasibility – This strategy will require BB to create new materials for its online product because the text will not simply be copied from the existing hard copy manuals. Therefore, it is likely to take a significant amount of time to create the online materials in the first instance. This suggests this strategy is more appropriate in the longer term than in the short term.

Acceptability – Moreover, there is likely to be a significant cost involved, especially if BB uses an external agency to design and develop interactive online materials. However, this product will be clearly differentiated from the products which BB's competitors offer, and so could provide a useful tool for gaining market share. In addition, having a differentiated product may allow BB to charge a higher price for it, in turn giving it a chance to improve profit margins, which are currently low.

(3) Direct sales (Market development) – Currently, BB only sells its materials through bookshops or online vendors, rather than selling directly to students. This means that BB has to pay some of the sales margin from the books to the 'agents' who have sold them.

As an alternative, BB could sell the books itself, allowing customers to purchase them directly from BB's own website. In this way, BB will retain all the profit from the sale, in turn increasing its profit margin, making this strategy **acceptable to BB**. However, this option doesn't make the manuals any more user-friendly to the students, so won't provide BB with any means of differentiating itself from its competitors in that respect.

Suitability – Ease of switching – A number of customers may already be buying materials online from online bookstores, in which case there should be very little switching cost in changing to buy the manuals directly from BB. However, BB will need to ensure that its products are still visible for students when they are looking to buy materials. If BB's competitors continue to sell through the bookstores and online vendors, and if students look there to buy their books, then they may buy one of the competitor's books instead of BB's. BB may need to look at search engine optimisation, for example, so that students looking to buy a text online see that they can buy BB's text directly from BB.

Feasibility – e-commerce capability – Although BB currently has a website, it is unlikely that the company currently handles any e-commerce transactions. Therefore, BB will have to upgrade its website to provide the functionality required for customers to select manuals online, as well as providing a secure payment facility so that customers can pay for their books online.

Feasibility – Logistics – Under this strategy, BB will also have to deliver (or oversee delivery of) individual manuals to private customers and the colleges whose students use its manuals. This will result in a much **greater number of deliveries** than at present where BB delivers bulk orders to a smaller number of bookshops.

Consequently, BB is likely to need to recruit additional logistics staff. Alternatively, BB could outsource the packaging and distribution process to a specialist logistics firm – although it would need to consider the cost-benefit implications of this before choosing to do so. The fee paid to the logistics firm will reduce BB's profit margin in a similar way that a commission paid to bookshops would.

Potential fourth strategy:

Cost reduction

Currently, BB carries out the production process (typesetting and printing) in-house, and in Europe. However, it is possible that some of the production activities could be done more cheaply by using external contractors.

In particular, electronic versions of the manuals could be sent for printing by contractors based in countries outside mainland Europe, whose costs are cheaper.

Suitability – Cost reduction – This strategy should allow BB to reduce its costs, and thereby improve margins.

Feasibility – Relationship management – However, although this strategy may reduce BB's costs, it will lead to a new problem of having to manage the relationship with the companies responsible for printing the materials. BB will also need to ensure that the print quality of its manuals is not compromised by switching to new, cheaper printers.

Acceptability – Redundancies – This strategy is also likely to lead to redundancies among BB's in-house production teams, and other one-off costs associated with shutting down the in-house production facilities.

Moreover, this strategy may effectively prove only to be an interim solution, with the longer-term solution being the switch to using electronic media in preference to hard copy printed manuals.

2 HappyStay Co

Discount vouchers

The principles of IFRS 15, *Revenue from Contracts with Customers* require that:

(1) The voucher should be accounted for as a separate component of the sale

(2) The promise to provide the discount is a performance obligation

(3) HappyStay must estimate the stand-alone selling price of the discount voucher. That estimate must reflect the discount that the customer would obtain when exercising the option, adjusted for both of the following:

- any discount the customer could receive without exercising the option
- the likelihood that the option will be exercised

The vouchers are issued as part of the sale of the room, and are redeemable against future bookings. Therefore, the substance of the transaction is that the **customer is purchasing both their stay in the hotel, and a voucher**.

Vouchers worth £50 million are eligible for discount as at 30 September 20X8. However, previous experience shows that only 25% of these will be redeemed, meaning HappyStay can expect vouchers worth £12.5 million to be redeemed.

Income from room sales for the year are £650million, so effectively, **HappyStay has made sales worth**

£662.5 **million** (£650m rooms + £12.5m vouchers) in exchange for £650 million. The stand-alone price would give a total of £650 million for the rooms, and £12.5 million for the vouchers.

Step 4 of IFRS 15's five-step process for revenue recognition then requires HappyStay to allocate the transaction price to the performance obligations. This means that proceeds need to be split proportionally to the stand-alone prices, so that the discount of £12.5 million is allocated between the room sales and vouchers:

$$\text{Room sales: } \frac{650}{662.5} \times £650\text{m} = £637.74\text{m}$$

$$\text{Vouchers: } \frac{12.5}{662.5} \times £650\text{m} = £12.26\text{m} \quad \text{(balanced)}$$

Step 5 (the final step) of IFRS 15's process for revenue recognition requires that revenue is recognised when the performance obligation is satisfied. Therefore, in the financial statements

CHAPTER 5

£637.74m should be recognised as revenue (because the guests have completed the stays which generated that revenue) while £12.26m should be recognised as a contract liability for the vouchers. The £12.26 million revenue attributable to the vouchers should only be recognised when the performance obligation is fulfilled, that is, when the vouchers are redeemed.

3 The Institute of Accountancy Training (IAT)

3.1 In traditional marketing media, such as advertising and direct mail, the marketing message is initiated by the supplier sending out a message to potential customers. However, there is limited interaction with the customer. In electronic media, the customer plays a much more active role, for example visiting a website to find out information about a course or seminar.

Interactivity – Interactivity is a key feature of electronic media, creating a dialogue between supplier and customer. Usually this dialogue is through email exchanges. For example, IAT could use emails to provide customers with information about courses which may be of interest to them.

However, in order to do this, IAT **needs to know the email address** of potential customers, and the courses they could be interested in. At the moment, IAT only collects personal information about people who wish to download study material; there isn't a facility on the website for **potential customers to register their interest** in a particular course, so that IAT can then send them further details about the course, and any special deals available to encourage them to book on the course.

In this respect, the functionality of IAT's website is more characteristic of traditional media (that is, sending out generic messages) rather than encouraging the interactivity which is characteristic of electronic media.

Individualisation – Another characteristic of electronic media is that they allow marketing messages to be **tailored to specific market segments**, whereas with traditional media a single message is sent to all market segments.

For example, some of IAT's courses are for non-qualified candidates preparing for their professional exams, while others are for qualified accountants fulfilling their CPD requirements. At the moment, IAT has a single website for all students. However, students could be asked to indicate which courses they are interested in (professional exams, or CPD) when they first visit the website, and then the **information could be** filtered so that only the parts relevant to them are displayed on the screen, or they are taken to different screens, depending on their interest.

The interactivity noted above also promotes individualisation. Once students have registered an interest in a particular course, or for a course in a particular location, subsequently emails individually relevant to them can be sent out, advertising courses for related subjects in the nearest centre to them.

Intelligence – Since advertisers using traditional media do not engage in any dialogue with potential customers, they cannot use their marketing to find out anything about customers' requirements, and also which products or services are meeting them most effectively.

However, website software allows web owners to **record information every time a user clicks on a page**. For IAT, this would be useful to see which pages on its website (ie, which courses)

potential customers view most frequently. It would also be useful for IAT to see how the number of visitors to a web page translates into them signing up for a course or for study material.

If the **conversion rate from hits (visits) to sales** is low for particular products, it suggests there is either a problem with the web page promoting that product (for example, it is not clear to follow), or with the underlying product itself (for example, potential customers are put off by the price of a course).

IAT could possibly even get more customer intelligence by including a **short survey on its website**, asking visitors to the site for their feedback on either the site itself, or the products IAT is offering.

Integration – Advertisers can use the intelligence which they gather from customers to add value to their products or services, by sharing the intelligence with other people across their company.

For example, at the moment only 10% of people who view IAT's downloadable study material proceed to purchase it. The online marketing team should discuss this low conversion rate with other areas of the business to assess whether there is anything that could be done to make the material more attractive to potential customers. These discussions could be with the authors of the material, to discuss if it could be made more student-friendly; or with the finance department, to see if any discounts or incentives could be offered to make the price more attractive.

Independence of location – By its nature, internet marketing has a global reach and so allows advertisers to access potential customers who were outside the reach of traditional media.

Moreover, the internet is accessible 24 hours a day, 7 days a week, so it allows potential customers to find information about a company's products and services outside normal office hours.

The ability to communicate globally may be more useful to IAT for selling study material than selling courses. Although IAT has eight worldwide centres, it is only likely to be practical for students to attend these centres if they live relatively close to them. However, study materials can be sent to students wherever they live.

There are some practical considerations here, though, which we will consider further in part (b). The procedures for booking courses do not support the 'global' aspect of the electronic media, for example, because customers cannot book a course online.

3.2 Electronic marketing offers a number of new opportunities which are not readily available, or affordable, using traditional marketing methods. We can evaluate how IAT can take advantage of them by looking at how they relate to some of the key elements of the marketing mix: product, price, promotion, place and process.

Product

IAT offers three different products for sale through its website: training courses for professional qualifications, training manuals for professional examinations, and CPD training courses.

Sample products – The website allows customers to **see a sample of the training manuals before they buy a product**, so that they can see first-hand the quality of the product they are buying.

At the moment, there is no similar way of assessing the quality of the courses in advance of purchasing them, not least because of their intangible nature. However, IAT could include some **video clips or web casts** from previous courses on the website to give potential customers a flavour of the training provided. They could also include some **quotes from**

students who have been on the most recent courses to endorse the quality of the courses.

Online courses – At the moment, the courses are only run from eight centres worldwide (three for CPD courses). This is likely to restrict the number of students who can attend courses to those who live relatively near to the course locations. IAT should consider whether the courses can be offered online through **web seminars** and **web casts**, supported by a **virtual learning environment** and **online tutors**. Even so, IAT may not be able to access a truly global audience, because customers will need **fast broadband access** to make these web seminars practical, but this option may allow IAT to increase its student numbers internationally.

Product size – At the moment, students pay a fixed fee of £180, which gives them access to a complete set of manuals for all the professional examinations. However, some students may not wish to purchase all the manuals at the same time. Therefore, IAT should consider allowing candidates to buy individual manuals as an alternative to buying the whole set. In part (a) we talked about customer intelligence. This is an area where IAT could benefit from customer research, to understand whether students would prefer to buy individual manuals or to buy the whole set at once.

Product updates – It is likely that a number of IAT's training manuals will need updating each year to reflect syllabus changes or changes in legislation. IAT can use the website to publicise any such changes. Moreover, if it had a database of email addresses for students who had registered an interest in the material which was affected, IAT could send a message to the student telling them the new, updated version was available.

Price

Bulk discounts – In the section on price, above, we mentioned the option of allowing students to buy individual manuals rather than having to buy the whole set. However, if IAT takes up this option it could still offer a discounted fee for buying the whole set in one go.

Pay per access – At the moment, students pay a one-off fee to download the material, regardless of how much of it they want to use. An alternative approach may be to allow students to pay 'on demand'. For example, they would only be charged when they access the material, and the level of the charge would depend on how many pages they access. The pricing structure could be explained on the website.

Price transparency – The internet allows potential customers to compare IAT's prices to its competitors very easily. Therefore, IAT needs to make sure its prices are competitive in the marketplace.

However, this price transparency could also be problematic for IAT because it makes it harder to offer **differential pricing**. Candidates in poorer countries are going to be less able to afford the standard prices than candidates in richer countries.

IAT could consider **developing local websites for different countries** (with local domain names), translating the prices into local currency and possibly adjusting prices to reflect the income levels in the countries. If the content of the website was also translated into the local language, this, in conjunction with the local domain name, would make it harder for people from other countries to compare prices internationally.

Dynamic pricing – It is much quicker and easier to change the price of products advertised on a website than it would be for prices advertised through traditional media. IAT could take advantage of this to vary the prices of its courses over time, in the same way that budget airlines do. For example, when a course first becomes available its price could be relatively cheap, to encourage people to sign up. Then as the course becomes more fully booked, the prices could rise. However, if there remain a number of empty spaces on a course shortly before it is due to run, the price could be reduced to try to encourage late bookings.

Promotion

One of the main differences between electronic media and traditional media is the interactivity of the customer in seeking out information. Potential customers now use the internet to search for information about possible products.

Search engine optimisation – IAT needs to ensure that if potential customers enter a web search for accountancy manuals or courses, then IAT's product offerings come near the top of the resulting listings. The way IAT's website is constructed will affect the likelihood of it appearing on the first page of search engine listings.

Click throughs – IAT should also investigate the possibility of building links to its website from other sites. For example, where it offers professional qualifications, it may be able to build a link from the qualification provider's website. Although IAT will have to pay a commission for the number of visitors who come to its site via the link, it should still prove a beneficial marketing tactic, because it will increase the number of visitors to IAT's website, as well as improving its search engine ranking.

Currently, IAT's website appears to be a standalone site, with no links to any other sites.

Banner advertising – IAT should also publicise its products and services through banner adverts. Although the logic behind these is no different to traditional press adverts, the more places IAT advertises itself the more it will increase customer awareness about its products and services.

Place

Global reach – Although the internet allows IAT to communicate globally, in practice, this global reach is likely to be more useful in selling the downloadable manuals than the training courses. Customers can download and print off the training manuals wherever they live.

However, there are currently only eight training centres worldwide and, of these, only three offer CPD courses. Therefore, IAT's **training courses are only likely to be attractive to people who live relatively close to the centres.**

If IAT wants to maximise the global reach electronic media offer, it will either need to consider opening new centres or, as we have discussed earlier, provide courses and tutorials online.

Process

Website functionality – At the moment, IAT's website is predominantly only an information site; for example, students can find information about courses on the site, but **cannot book and pay for their course online**.

One of the features of the internet as an advertising medium is that it operates 24 hours a day, 7 days a week. However, because course students have to contact an administrator to process their booking and payment details, this 24/7 flexibility is likely to be lost.

Interestingly, the website does allow students to pay for the downloadable material online, but IAT should consider adding the functionality to allow them to book and pay for their courses online.

Online queries – There is also no evidence that students can register any queries online. This is another feature which the marketing manager should consider adding to improve the consistency of the overall marketing mix.

4 CFE

4.1 Competitive market – The high number of branded coffee shops in Teeland suggests that the market there is likely to be competitive, because customers will have a high degree of choice about where to buy their coffee. In this respect, branding, and the loyalty card scheme, could be valuable to CFE if it encourages customers to keep returning to CFE shops to buy their coffee, rather than going to rival shops.

Customer loyalty – By creating customer loyalty, a strong brand identity is a way of increasing or maintaining sales; for example, by improving customer retention rates and encouraging repeat purchases. This is the logic behind the loyalty cards being proposed by the marketing director.

However, while increasing sales will allow CFE to increase its profits overall, it may not, by itself, have as much impact as the marketing director might hope.

Importantly, CFE currently generates more revenue per shop than the market leader, although its profit margins are significantly lower.

Comparison of financial performance

	CFE	Market leader
Revenue per shop ($'000)	1,434.5	1,384.6
Gross margin (%)	64.5%	68.9%
Gross margin per shop ($'000)	925.0	953.8
Operating profit margin (%)	9.77%	12.50%

In this respect, it seems that CFE's cost structure and its product mix may have a greater impact on performance than brand awareness. For example, CFE makes the highest profit margins on coffee sales, so if it could sell relatively more coffee drinks compared to food and snacks, this would improve its profit margins. The loyalty card scheme could help here, by encouraging customers to buy hot drinks so that they qualify for their free drink. (Obviously, though, margins will then be reduced by the 'free' seventh drink.)

Product mix

	Coffee	Other drinks	Food and snacks
% of total revenue	34.0%	9.7%	56.3%
Gross margin (%) earned per product	80.7%	52.4%	56.8%

However, although there appear to be more important factors affecting CFE's performance than its company profile, branding could still have a positive impact on its performance.

Brand awareness – Brand awareness would be an indicator of CFE's position in the coffee shop market, and would indicate whether customers or potential customers do actually differentiate CFE from its customers, for example as offering higher-quality products and service. If customers don't associate CFE's products as being higher quality than the competitors, then the money spent on higher-quality ingredients and service staff is effectively being wasted.

Quality and trust – One of the key attributes of a successful brand is that it conveys a sense of quality and trust to potential customers, thereby encouraging them to buy the product or service in question in preference to a rival product.

Quality seems to be very important to CFE: it uses high-quality ingredients for its food and drinks, and seeks to ensure customers receive a high standard of service (by paying its staff wages above the industry average).

Differentiation – In this respect, CFE appears to be trying to differentiate itself from its competitors on grounds of quality. If it can ensure that its brand becomes synonymous with quality, then this will help CFE compete successfully with other branded coffee shops.

Premium price – Branding messages are usually qualitative rather than focusing, and therefore reduce the importance of price differentials between a product and its rivals. This could be very important for CFE. Customers do not appear to be price sensitive, yet CFE is charging broadly the same prices as its competitors.

If CFE is able to strengthen its brand, by focusing on quality and service, this may, in turn, allow it to charge a higher price for its products. This could be crucial for CFE's profitability, because it could allow CFE to reverse the current situation in which its gross margin percentages are lower than its competitors'.

4.2 Demand for the product – When deciding whether or not to increase the price of its coffee products, CFE needs to consider what impact the changes in price are likely to have on customer demand for them. Therefore, market research will be important to assess how demand (and consequently revenue) will be affected by any change in price.

It seems that CFE's customers are not particularly price sensitive, which should increase the chances of the finance director's proposal. However, CFE should still research its reaction to any change before implementing it.

In this respect, it would also be useful for CFE to gauge the strength of any brand loyalty towards it.

Amount of increase – Equally, market research will give CFE an insight into what price customers are willing to pay for their coffee. CFE's competitive strategy (of differentiation based around quality) might enable it to charge higher prices than its customers to an extent and still retain its customers. However, if CFE increases its prices too much, it is unlikely that the customers will remain loyal to it, even if it offers higher-quality coffee and service than its competitors.

Competitors' pricing policies – Currently, CFE's prices are largely the same as those charged by the multinational competitors. However, these competitors might also be planning to change their prices. For example, if CFE's competitors increase their prices, that could give CFE greater scope to increase its prices.

Competitors' plans – Currently, CFE seems to serve a higher proportion of 'Fair Trade' products than its competitors, and this might help it justify its higher prices. However, if its competitors are also planning to use more 'Fair Trade' coffee, or increase the quality of other ingredients, this would reduce the basis of differentiation between CFE and its competitors. In this respect, any insights which CFE could gain into its competitors' plans, before it changed its prices, would be useful.

Input prices – The finance director's suggestion is designed to help CFE increase margins. However, if the price of coffee beans rises, it might need to increase prices in order to maintain its current margins.

Equally, if costs, such as the rents CFE has to pay for its premises, rise, this may also increase the pressure on CFE to increase its prices in order to maintain its profit margins.

5 Velo plc and Pedal Co

The fact that the 'Pedal Power' trade name is highly regarded in the marketplace suggests it is a source of economic benefits, and therefore can be viewed as an intangible asset.

However, it is an internally generated intangible asset for Pedal Co. As such, under IAS 38, *Intangible Assets*, the trade name would not have been recognised as an asset in Pedal Co's accounts.

IFRS 3, *Business Combinations* requires intangible assets acquired (such as brands and trade names) to be recognised if their fair value can be measured reliably.

Therefore, because a valuation has been provided by a firm of experts, Velo plc should recognise the trade name as a separately identifiable intangible asset, at fair value, on acquisition. (Depending on the useful life the trade name is expected to have, it may subsequently need to be amortised.)

Classifying the trade name as a separate asset will reduce the value of goodwill arising from the acquisition:

	£m
Total consideration	14.5
Less fair value of identifiable assets	(1.7)
Trade name intangible	(3.0)
Goodwill	**9.8**

Therefore, the acquisition will lead to an increase in Velo plc's intangible assets of £12.8 million, split between the trade name (£3.0 million) and goodwill (£9.8 million).

The goodwill arising on the acquisition is likely to be attributable to the operating synergies which Velo plc expects to achieve in the future.

Chapter 6
Corporate governance

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Introduction

Learning outcomes

- Explain the responsibility of those charged with governance for managing risk and assess the role of assurance in risk mitigation
- Assess the nature of governance and explain the characteristics and principles of good governance in a variety of scenarios
- Assess the interests and impact of organisational stakeholders in determining strategy and the consequences of strategic choices, including responsibilities to stakeholders for environmental, social and governance (ESG) policies
- Evaluate the impact of governance mechanisms on a range of stakeholders
- Assess and advise on appropriate corporate governance mechanisms, and evaluate stakeholder management
- Analyse and evaluate the strengths and weaknesses of corporate governance mechanisms and processes
- Evaluate the suitability of corporate governance and organisational structures for implementing strategy
- Explain the role of boards in monitoring corporate performance and risk, and assess the role of assurance procedures in this context
- Explain the nature, and assess the consequences, of the legal framework within which businesses, assurance and governance systems operate (with particular reference to company law, fraud, money laundering, civil liabilities, social security law, employment law, contract law, tort and environmental law)

Knowledge brought forward and syllabus links

Corporate governance was covered briefly in Business Strategy & Technology and is also covered in depth in Corporate Reporting. However, this chapter focuses on the effectiveness of governance by firstly looking at what governance is trying to achieve and the problems it is trying to address. We have already discussed the importance and general concerns of stakeholders in Strategic analysis and in this chapter we look at how important they are in the context of governance. The role of the board and whether the board appears to be operating effectively (or is able to operate effectively) is central to this chapter. Whether the organisational structure can effectively support the achievement of governance objectives is the other important issue.

The chapter ends with what is mainly a recap of law issues covered in other material, that has been included to set governance in its legal context. We also discuss the importance of the organisation having structures and procedures in place to ensure compliance.

Examination context

The learning outcomes of assessing and advising on corporate governance mechanisms and evaluating their strengths and weaknesses indicate that you will have to make judgements about how strong and appropriate governance mechanisms are, and highlight key weaknesses that may undermine their effectiveness.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Principles of governance** Prompted by concerns and scandals in the early 1990s, corporate governance guidance has developed considerably over the last three decades. However, many corporate governance debates remain ongoing, particularly as to whether guidance should take the form of a rules- based or principles-based approach. Some areas, for example board diversity, have been seen as increasingly important in the last few years.	**Approach** Section 1 sets the scene for this chapter and shows what has influenced the development of best practice, as well as identifying the principles of good corporate governance. Note the various mechanisms that make up an organisation's corporate governance structure. **Stop and think** How many of the provisions in corporate governance guidance, such as the Corporate Governance Code, apply mainly to large listed companies, and how many apply to all companies?	SBM&L requires practical application of theory to the scenario. Exam questions may therefore ask you to assess the strengths and weaknesses of corporate governance arrangements in an organisation and to suggest improvements where necessary.	
2	**Stakeholders** Directors and managers should be aware of the interests of stakeholders in governance. The current version of the Code puts the relationships between companies, shareholders and stakeholders at the heart of long-term sustainable growth.	**Approach** Section 2 deals with all those who have a stake in corporate governance and whose views must be taken into account. The 'comply or explain' requirement is an important one that has been adopted widely. **Stop and think** Why should small investors be treated the same as larger	Exam questions may expect you to discuss how corporate governance arrangements impact upon shareholders and other stakeholders. You may also need to consider how corporate governance itself is likely to be influenced by shareholder and stakeholder concerns.	
		institutional investors when it comes to corporate governance?		

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Role of boards** The effectiveness of the board as a mechanism for governance depends on the composition and balance of the board. The Corporate Governance Code sets standards of good practice in relation to: board leadership; division of responsibilities; composition of the board and evaluation of the board's performance; risk and control; and remuneration.	**Approach** Spend the majority of your time on this section, as the role of the board is central to how well the organisation is governed. **Stop and think** What aspects of diversity are most important for a board?	This is the most examinable section of the chapter. Exam questions may ask you to analyse the responsibilities and performance of board members and board committees or to advise management on steps it can take to ensure compliance with corporate governance best practice.	**IQ1: Recruitment of non-executive directors** In this question you are presented with three nominees to replace two of the non-executive directors. You are to evaluate the suitability of the nominees. It is good practice to look at the arguments in favour of and against each of the nominees. **IQ2: Audit committee** Examine two aspects of corporate governance; the limitations of relying on non-executive directors to improve corporate governance and how to enhance the effectiveness of audit committees. **IQ3: Internal control review** This short question is designed to encourage you to generate ideas. There are two tasks. Firstly, consider the type of information needed to help the board carry out a review of internal control. Secondly, consider the specific employee attitudes that would help or hinder a review of internal control.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
4	**Organisational structures and strategies** Corporate governance needs to be seen in wider contexts, both internally in relation to how organisations are structured, and externally, with regard to operating in an environment where the legal demands on the business are weighty. The effectiveness of governance arrangements may depend upon how well organisational strategy matches strategic and governance aims.	**Approach** Section 4 can be covered briefly – try to link it in with what you have studied in Business Strategy and Technology. **Stop and think** What can the board and senior managers do to encourage a positive culture that supports good corporate governance?	Exam questions may look at the effectiveness and appropriateness of corporate governance. You may therefore be asked to advise on the appropriateness of the structure for governance purposes, considering the size of the entity, the risks it is exposed to and the degree of decentralisation.	
5	**Legal framework of governance**. Companies are increasingly subject to laws and regulations with which they must comply. Boards must be aware of these laws and their impact on the organisation so that they can put in place controls to ensure compliance.	**Approach** You can read through this section fairly quickly. You need a general awareness of legislation that section 5 provides, but you are not expected to have a detailed knowledge of legislation. Pay particular attention to the section on money laundering and the Economic Crime Plan's 7 priority areas. **Stop and think** What factors lead to an increased risk of bribery or corruption?	In the exam you will not be required to cite detailed laws and regulations. However, it is important to have a basic awareness of issues such as fraud, bribery, insider trading and money laundering. You may also be required to advise on practical steps the board can take to encourage a culture of compliance.	

6	**Corporate Governance Code in Bangladesh** Listed companies are subject to compliance of Corporate Governance Code and Guidelines issued by BSEC and IDRA.	**Approach** You can read through this section fairly quickly. You need a general awareness of Bangladesh legislation	In the exam you will not be required to cite detailed laws and regulations. However, it is important to have a basic awareness about the legal governance code and guidelines in Bangladesh.	

Once you have worked through this guidance you are ready to attempt the further question practiceincluded at the end of this chapter.

1 Principles of governance

Section overview

Good corporate governance involves risk management and internal control, accountability to shareholders and other stakeholders, and conducting business in an ethical and effective way. While section 1-5 covers the international perspective, section 6 introduces the corporate governance code and guidelines issued by Bangladesh Securities and Exchange Commission (BSEC) and the Insurance Development and Regulatory Authority (IDRA).

Definition

Corporate governance: Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring. (OECD Principles, 2004, Preamble)

The aim of corporate governance should be to facilitate effective, entrepreneurial and prudent management that can deliver the long-term, sustainable success of the entity in achieving its objectives and creating value for its owners (shareholders). Key issues in corporate governance are the effectiveness of the leadership provided by the board of directors and the accountability of the board to the shareholders and other stakeholders for company performance and objectives.

Context example: Stakeholder pressures

Hermes Pensions Management Ltd, a leading UK institutional investor, introduced the Hermes principles in 2002. Hermes advocates that companies should be able to demonstrate that their investment decisions show ethical behaviour and have regard for the environment and society as a whole.

The first Hermes principles stated that companies should effectively manage relationships with their employees, suppliers and customers and with others who have a legitimate interest in the company's activities. They also required companies to support voluntary and statutory measures that minimise the externalisation of costs to the detriment of society at large. Businesses should thus not seek success at society's expense. The later principles issued by Hermes stated that socially, ethically and environmentally responsible behaviour should be part of the management process that companies should carry out to maximise shareholder value.

The Association of British Insurers also issues guidance on socially responsible investment. Its focus is managing risks that may affect business value arising from social, environmental and ethical issues.

Effective risk management could have the upside of enhancement of value. The guidelines emphasise the importance of effective information flows, and performance measurement systems and appropriate remuneration systems being part of risk management. Policies and procedures should be disclosed within the annual report and not in a separately published document.

Although mostly discussed in relation to large quoted companies, good corporate governance is anissue for all corporate bodies, both commercial and not for profit. In the UK, for example, the UK Corporate Governance Code applies to premium listed companies, but there is also a Quoted Companies Alliance Code for smaller quoted companies, the Wates Corporate Governance Principles for large private companies, and codes of governance for central government, local government authorities and charities.

The details of codes of corporate governance vary by country, and there is no single model of 'goodgovernance'. However, underlying any governance models or codes is the logic that good governance is required to create an environment of market confidence and business integrity.

In turn, this will help to reassure shareholders and other stakeholders their rights are protected,reducing the cost of capital and support entities' access to the capital market.

The G20/OECD Principles of Corporate Governance (2015) provide an international benchmark for policy makers and institutions. The Principles are based on the underlying logic that a high level of transparency, accountability, board oversight and respect for the rights of the shareholders and the role of key stakeholders are key parts of a well-functioning corporate governance system.

The International Corporate Governance Network (ICGN) also offers a supranational perspective on corporate governance, and its Global Governance Principles highlight eight key principles of effective governance.

Context example: Principles of Corporate Governance

OECD Principles of Corporate Governance

The OECD's Principles are not intended as detailed prescriptions, but instead aim to provide a reference which policy makers can use to develop their own corporate governance framework. **The OECD** Principles (2015) include six main points:

(a) Transparency and fairness

The corporate governance framework should promote transparent and fair markets, and the efficient allocation of resources. It should be consistent with the rule of law and support effective supervision and enforcement.

(b) Shareholders' rights

The corporate governance framework should protect and facilitate the exercise of shareholders' rights, and ensure the equitable treatment of all shareholders, including minority and foreign shareholders.

(c) Investors and stock markets

The corporate governance framework should provide sound incentives throughout the investment chain and provide for stock markets to function in a way that contributes to good corporate governance.

(d) The role of stakeholders in corporate governance

The corporate governance framework should recognise the rights of stakeholders established by law or through mutual agreements, and encourage active co-operation between companies and stakeholders in creating wealth, jobs and the sustainability of financially sound enterprises.

(e) Disclosure and transparency

Timely and accurate disclosure should be made on all material matters regarding the company,including its financial situation, performance, ownership and governance.

(f) Board responsibilities

The corporate governance framework should ensure the strategic guidance of the company, theeffective monitoring of management by the board, and the board's accountability to the company and the shareholders.

ICGN Global Governance Principles

(a) **Board role and responsibility** – The board should act on an informed basis – with good faith, care and diligence – in the best long-term interests of the company, for the benefit of shareholders but with regard to the interests of other relevant stakeholders.

(b) **Leadership and independence** – Board leadership requires clarity and balance in board and executive roles, and an integrity of process to promote the success of the company as a whole, as well as the interests of minority investors.

(c) **Composition and appointment** – There should be a sufficient mix of directors with relevant knowledge, independence, competence, industry experience and diversity of perspectives to generate effective challenge, discussion and objective decision making.

(d) **Corporate culture** – The board should adopt high standards of business ethics, ensuring that a company's vision, mission and objectives are sound and reflect its values. Codes of conduct should be communicated effectively and integrated into the company's strategy and operations, including its risk management systems and remuneration structures.

(e) **Risk oversight** – The board should proactively oversee, review and approve the approach to risk management, and should satisfy itself that the approach is functioning effectively.

(f) **Remuneration** – Remuneration should be designed to align the interests of the CEO and executive directors with those of the company and its shareholders, to help ensure long-term performance and sustainable value creation. Aggregate remuneration should be appropriately balanced with the needs to pay dividends to shareholders and retain capital for future investment.

(g) **Reporting and audit** – The board should oversee timely and high quality disclosures for investors and other stakeholders – relating to financial statements, strategic and operational performance, corporate governance, and significant environmental and social factors. A robust audit practice is critical for necessary quality standards.

(h) **Shareholder rights** – The rights of all shareholders should be equal and must be protected. Shareholder voting rights must be directly linked to the shareholder's economic stake in the company. Minority shareholders must have voting rights on key decisions or transactions which affect their interest in the company.

There are a number of elements in corporate governance:

(a) Creating an **effective board of directors**: an effective board depends on the leadership provided by the chairman (supported by the company secretary), the balance and composition of the board membership, and decision making by the board

(b) The **accountability** of the board to the company's shareholders and other stakeholders, through financial reporting, other reporting and the AGM

(c) The effectiveness of **risk management** (strategic risk) and internal control systems

(d) **Remuneration** of directors and senior executives

(e) **Relationships** between the company and its **shareholders**, with investors engaging constructively with a company and discussing any departures from recommended practice

(f) The **ethical conduct** of the company, including its policies on corporate social responsibility and sustainability

1.1 Principles of corporate governance

High standards of corporate governance should be based on a number of fundamental principles.

(a) **Responsibility**. The leaders of a company (directors) should accept responsibility for acting in the best interests of the company so as to achieve the company's objectives (whatever these might be).

(b) **Accountability**. The board of directors should be fully accountable to the company's shareholders (and other stakeholders). Within the company, executive management should be properly accountable to the board of directors.

(c) **Integrity and honesty**. Companies should operate in a way that displays fairness and honesty in their dealings. Good corporate governance has a strong ethical element.

(d) **Transparency**. Through reporting or other methods of communication companies should be open and transparent about their policies and objectives, as well as past performance.

1.1.1 UK Corporate Governance Code 2018

As noted earlier, although frameworks such as the OECD Principles of Corporate Governance provide a benchmark, governance codes and approaches to governance can vary in different countries.

In the UK, companies with a premium listing should be guided by the UK Corporate Governance Code (as revised in July 2018).

The Code emphasises the value of good corporate governance as a contributing factor to long-term sustainable success, and identifies a set of key Principles which help to define good governance.

Context example: Principles of the UK Corporate Governance Code

Board Leadership and Company Purpose:

(a) A successful company is led by an effective and entrepreneurial board, whose role is to promote the long-term sustainable success of the company, generating value for shareholders and contributing to wider society.

(b) The board should establish the company's purpose, values and strategy and satisfy itself that these and its culture are aligned. All directors must act with integrity, lead by example, and promote the desired culture.

(c) The board should ensure that the necessary resources are in place for the company to meet its objectives and measure performance against them. The board should also establish a framework of prudent and effective controls which enable risk to be assessed and managed.

(d) In order for the company to meet its responsibilities to shareholders and stakeholders, the board should ensure effective engagement with, and encourage participation from, these parties.

(e) The board should ensure that workforce policies and practices are consistent with the company's values and support its long-term sustainable success. The workforce should be able to raise any matters of concern.

Divisions of Responsibilities

(f) The chair leads the board and is responsible for its overall effectiveness in directing the company. They should demonstrate objective judgement throughout their tenure and promote a culture of openness and debate. In addition, the chair facilitates constructive board relations and the effective contribution of all non-executive directors, and ensures that directors receive accurate, timely and clear information.

(g) The board should include an appropriate combination of executive and non-executive (and, in particular, independent non-executive) directors, such that no one individual or small group of individuals dominates the board's decision making. There should be a clear division of responsibilities between the leadership of the board and the executive leadership of the company's business.

(h) Non-executive directors should have sufficient time to meet their board responsibilities. They should provide constructive challenge, strategic guidance, offer specialist advice and hold management to account.

(i) The board, supported by the company secretary, should ensure that it has the policies, processes, information, time and resources it needs in order to function effectively and efficiently.

Composition, Succession and Evaluation

(j) Appointments to the board should be subject to a formal, rigorous and transparent procedure, and an effective succession plan should be maintained for board and senior management. Both appointments and succession plans should be based on merit and objective criteria and, within this context, should promote diversity of gender, social and ethnic backgrounds, cognitive and personal strengths.

(k) The board and its committees should have a combination of skills, experience and knowledge. Consideration should be given to the length of service of the board as a whole and membership regularly refreshed.

(l) Annual evaluation of the board should consider its composition, diversity and how effectively members work together to achieve objectives. Individual evaluation should demonstrate whether each director continues to contribute effectively.

Audit, Risk and Internal Control

(m) The board should establish formal and transparent policies and procedures to ensure the independence and effectiveness of internal and external audit functions and satisfy itself on the integrity of financial and narrative statements.

(n) The board should present a fair, balanced and understandable assessment of the company's position and prospects.

(o) The board should establish procedures to manage risk, oversee the internal control framework, and determine the nature and extent of the principal risks the company is willing to take in order to achieve its long-term strategic objectives.

Remuneration

(p) Remuneration policies and practices should be designed to support strategy and promote long- term sustainable success. Executive remuneration should be aligned to company purpose and values, and be clearly linked to the successful delivery of the company's long-term strategy.

(q) A formal and transparent procedure for developing policy on executive remuneration and determining director and senior management remuneration should be established.

No director should be involved in deciding their own remuneration outcome.

(r) Directors should exercise independent judgement and discretion when authorising remuneration outcomes, taking account of company and individual performance, and wider circumstances.

Source: Financial Reporting Council (FRC), *UK Corporate Governance Code 2018*.

The Listing Rules require companies to explain how they have applied the Principles, so that – in turn

– shareholders can evaluate how effectively the Principles have been applied.

In this respect, the quality of a company's reporting is important, in order to allow shareholders to evaluate how the Principles have been applied, and the company's governance practices.

However, the Code sets out Principles rather than a rigid set of rules, so it offers boards and companies flexibility by allowing them to 'comply or explain' with the Principles. This also means shareholders and investors need to assess a company's approach thoughtfully, and – particularly if a company has not complied with a Principle – to determine whether (or not) they are satisfied the company's governance practices are contributing to its sustainable success and helping it achieve its strategic objectives.

As such, investors as well as directors have an important role in governance. Investors should engage constructively with companies, and discuss with them any departures from recommended practice and the companies' rationale for these.

1.1.2 Reporting by AIM companies

The UK Corporate Governance Code applies to companies with a premium listing on the main market. However, companies with an AIM listing also need to report on their application of a recognised corporate governance code. AIM companies are required to include:

- details of a recognised corporate governance code that the board of directors of the company has decided to apply;
- how the company complies with that code; and
- where it departs from its chosen code, an explanation of the reasons for doing so ('comply or explain').

This information should be reviewed annually.

This reflects the statement in AIM Notice 50 that: 'The London Stock Exchange considers that good standards of corporate governance are a significant contribution to a company's long-term success. Accordingly, AIM companies and nominated advisers are reminded that good corporate governance is supported by a meaningful explanation of the company's practices against the principles of the chosen code, rather than simply identifying areas of non-compliance.'

While the AIM Rules themselves do not specify what a 'recognised corporate governance code' is, AIM Notice 50 indicates that an AIM company should comply or explain against a code of corporate governance that is 'appropriate for a company admitted to a public market' and includes examples of existing codes, such as the Financial Reporting Council's UK Corporate Governance Code.

Overseas companies with an AIM listing, or companies with a second listing on an overseas market, may consider it more appropriate to report using an appropriate code from a foreign jurisdiction.

1.2 Corporate governance mechanisms

A corporate governance structure combines controls, policies and guidelines that drive the organisation towards its objectives. It is a combination of various mechanisms.

1.2.1 Internal mechanisms

The most important set of controls for an organisation comes from its internal mechanisms. These controls monitor the progress and activities of the organisation and take corrective actions when required. They serve the internal objectives of the organisation and its internal stakeholders, including employees, managers and directors.

These objectives include efficient operations, clear reporting lines, performance measurement and incentive systems. Internal mechanisms include oversight of management, internal audits, structure of the board of directors into levels of responsibility, segregation of control and policy development.

1.2.2 External mechanisms

External control mechanisms are controlled by those outside an organisation and serve the objectives of entities such as regulators, governments and financial institutions.

These objectives include debt management and legal compliance and are often imposed by external stakeholders in the form of regulatory guidelines. External organisations, such as industry or professional associations, may suggest guidelines for best practice.

1.3.3 Audit

An independent external audit of an organisation's financial statements is part of the overall corporate governance structure. An audit of the company's financial statements serves both internal and external stakeholders. A set of audited financial statements and the accompanying auditor's report helps investors, employees, shareholders and regulators determine the financial performance of the organisation.

1.3 Weaknesses with boards

Boards that have failed to manage companies effectively have been a very significant aspect of governance scandals. Different scandals have highlighted certain key weaknesses.

1.3.1 Domination by a single individual

A feature of many corporate governance scandals has been boards dominated by a single senior executive, with other board members merely acting as a rubber stamp. Sometimes, the single individual may bypass the board to action his own interests.

Even if an organisation is not dominated by a single individual, there may be other weaknesses. The organisation may be run by a small group centred round the chief executive and chief financial officer, and appointments may be made by personal recommendation, rather than a formal, objective process.

1.3.2 Lack of involvement of board

Boards that meet irregularly or fail to consider systematically the organisation's activities and risks are clearly weak. Sometimes, the failure to carry out proper oversight is due to a lack of information being provided, or the directors lacking the knowledge or skills necessary to contribute effectively. A board of directors may delegate some aspects of decision making to executive management, when the decisions should more appropriately be taken by the board.

1.3.3 Lack of supervision

Employees who are not properly supervised by the board can create large losses for the organisation through their own incompetence, negligence or fraudulent activity.

A board of directors does not have direct responsibility for supervision and other internal controls, but the board is responsible for ensuring that the system of internal control is effective.

Professional skills focus: Applying judgement

One of the skills tested in the ACA exams is your ability to apply judgement and critical thinking to a situation. When assessing corporate governance for an organisation, you may be presented with information outlining the structure of the board. Combine your technical knowledge and judgement skills with a review of the relevant exhibits to identify weaknesses in the governance structure and make appropriate recommendations.

1.4 Complaints over directors' remuneration

Complaints over remuneration levels and reward systems for directors and senior executives have been a common feature of corporate governance debates. Complaints have not only focused on remuneration levels, but also on the unwillingness of those who can challenge remuneration packages effectively (non-executive directors, institutional shareholders) to do so. Various problems have been highlighted as follows:

(a) Remuneration levels that are **excessive** per se, and which are not justified by the contribution directors have made

(b) Incentive schemes that do not motivate executives to achieve levels of performance that are in the best long-term interests of shareholders

(c) Remuneration arrangements providing **incentives for directors** to allow risk taking beyond levels that would be deemed acceptable by many shareholders

(d) Directors may be **rewarded for failure**, for example receiving bonuses when their companies have performed poorly and receiving significant compensation payments when they lose office

1.5 Accounts and audit failings

Inevitably, many companies involved in scandals have had glaring weaknesses in internal control –weaknesses that have not been picked up by those monitoring the internal control system.

1.5.1 Lack of adequate control function

Poor governance is often the result of ineffective internal control, and weaknesses in financial (reporting) controls, operational controls and compliance controls within a company. One control weakness may be a lack of an internal audit function. Another important control is lack of adequate technical knowledge in key roles; for example, in the audit committee or in senior compliance positions. A rapid turnover of staff involved in accounting or control may suggest inadequate resourcing, and will make control more difficult because of lack of continuity.

1.5.2 Lack of independent scrutiny

External auditors may not carry out the necessary questioning of senior management because of fears of losing the audit. Often corporate collapses are followed by criticisms of external auditors. For example, the inquiry carried out by the Work and Pensions Committee and the Business, Energy and Industrial Strategy (BEIS) Committee into the collapse of Carillion in early 2018 said that internal and external checks designed to prevent failures of the board had all failed – including those relating to the audit. The report argued that the auditor had failed to exercise professional scepticism towards Carillion's accounting judgements, and failed to paint a true picture of the company's financial problems.

1.5.3 Misleading accounts and information

Often misleading figures are symptomatic of other problems but clearly, poor-quality accounting information is a major problem if markets are trying to make a fair assessment of a company's value.

The ultimate risk from misleading financial reporting is that the company may become insolvent unexpectedly.

Context example: Patisserie Valerie

ICAEW's *Economia* magazine reports that, in the run-up to the collapse of the coffee and cakes chain Patisserie Valerie, the company's chairman 'felt confident that the numbers were proving the resilience of the business, even though competition, conditions and costs in the hospitality industry were getting tougher.'

He said, 'I received solid weekly numbers, comprehensive monthly management accounts, and… annual accounts that were given a clean bill of health by our auditors.'

However, in October 2018, the CEO informed the Chairman that the company's bank accounts had been frozen, and what they thought had been £28.8m of cash in the bank was in fact nearly £10m of debt, with £9.7m drawn down on two secret bank overdrafts.

In January 2019, Patisserie Valerie crashed into administration, as a result of a widespread accounting fraud, which left the company without sufficient funding to meet its liabilities as they fell due.

Economia (10 June 2019) *Ex Patisserie Valerie chair shocked by Grant Thornton* [Online] Available from: https://economia.icaew.com/news/june-2019/ex-patisserie-valerie-chair-shocked-by-grant- thornton [Accessed 9 July 2019]

1.6 Perspectives on governance

There are several different perspectives on corporate governance, which affect opinions about the relationship between a board of directors and the company's shareholders and other stakeholders.

1.6.1 Stewardship theory

Stewardship theory is based on the view that the directors and management of a company are the **stewards of the company's assets**, charged with the deployment and protection of the assets in ways that are consistent with the overall strategy of the organisation. Shareholders should have the right to dismiss their stewards if they are dissatisfied with their stewardship, by means of a vote at an annual general meeting.

1.6.2 Agency theory

Agency theory is based on the view that the directors of a company act as agents for the shareholders, and have a responsibility to act as agents towards their principals. Unfortunately, there is a risk that the agents will act in their own self-interest rather than in the best interests of the shareholders, and good governance requires measures to prevent this from happening.

Controls over self-interested activities by the company's agents include the requirement for accountability (through financial reporting, other reports, the AGM and so on). In addition, the directors and senior management should be given incentives to act in the best interests of the shareholders, and this can be achieved by means of well-structured remuneration and incentive schemes.

1.6.3 Shareholder theory, enlightened shareholder theory and stakeholder theory

There are different views about the approach that the directors of a company should take towards acting in the interests of shareholders and other stakeholders.

At one extreme is the view that the board of directors should always act in the best interests of the shareholders. The interests and objectives of other stakeholders in the company (such as employees, customers, suppliers and lenders) are of no concern, except to the extent that the best interests of the shareholders are protected.

Towards another extreme is the stakeholder approach to governance. This is based on the view that the directors of a company should act in the interests of all the major stakeholders in their company, not just the shareholders. This will involve making compromises between the conflicting interests of different stakeholder groups. However, the concerns of stakeholders such as employees are as important as those of shareholders.

An approach to governance that lies somewhere between these two extremes is the enlightened shareholder approach. This is based on the view that a board of directors is required primarily to act in the interests of its shareholders, but it should also make compromises and take into consideration the concerns and objectives of other stakeholder groups.

None of these approaches to governance is necessarily 'right' or 'wrong', but they can affect opinions about how corporate governance should be conducted.

1.7 Governance and sustainability

Throughout this workbook, the importance of sustainability and working to eliminate climate change has been discussed. Good corporate governance also implies taking account of wider areas of corporate responsibility, such as its impact and dependency on the natural environment, how far its strategy is sustainable in terms of the world's resources in the long term, its management of its human resources, how well it manages risk, the extent of its charitable support and how far it goes beyond complying with just the minimum standards required by laws and regulations.

The board therefore has a key oversight role in ensuring that the organisation effectively monitors and manages ESG factors. Some considerations for the board with regard to managing ESG factors include:

- Ensuring that the board has the necessary expertise and skills to manage ESG risks and opportunities
- Ensuring that ESG risks and opportunities are integrated into the company's long-term strategy. Management of ESG risks is discussed in Business risk management.

- Managing the organisation's use of natural resources. The board will need access to relevant information such as environmental management accounts, so that they can monitor and plan to reduce the harmful impacts that the organisation's activities have.
- Communicating regularly with investors and stakeholders regarding the company's approach to managing sustainability, identifying risks and mitigating actions.
- Reporting on ESG performance. The directors have the responsibility to ensure that the business complies with all mandatory reporting requirements relating to areas such as climate related disclosures. Directors should ensure that full disclosure of all material information relating to ESG matters, including voluntary disclosures, where appropriate. ESG disclosures, including mandatory disclosures, were discussed in Strategic performance management.

The King IV Report on Corporate Governance for South Africa provides some recommendations to help governance with regards to ESG:

- A social and ethics committee should be set up as a board committee.
- The board should recognise the critical role of stakeholders in the governance process in holding the board and company to account for their actions and disclosures. The board should also consider the legitimate and reasonable needs, interests and expectations of stakeholders.
- Having a strong focus on opportunity management as well as risk management, and requiring the board to pay specific attention to opportunities in the strategic planning process.

The following quotation from Larry Fink, the CEO of BlackRock, the world's largest asset management company illustrates the importance of governance: 'A company's ability to manage environmental, social and governance matters demonstrates the leadership and good governance that is so essential to sustainable growth, which is why we are increasingly integrating these issues into our investment process. Companies must ask themselves: What role do we play in the community? How are we managing our impact on the environment? Are we working to create a diverse workforce? Are we adapting to technological change? Are we providing the retraining and opportunities that our employees and our business will need to adjust to an increasingly automated world? Are we using behavioural finance and other tools to prepare workers for retirement, so that they invest in a way that will help them achieve their goals?' *Quoted in COSO WBCSD Enterprise Risk Management, Applying enterprise risk management to environmental, social and governance-related risks.*

2 Stakeholders

Section overview

- Directors and managers should be aware of the interests of stakeholders in governance.
- Major shareholders in companies, especially institutional investors, should recognise their responsibilities for standards of corporate governance, through communications with the company and the exercise of rights (particularly voting rights).

This section focuses on the interests and claims of stakeholders in the context of corporate governance.

The Organisation for Economic Co-operation and Development (OECD) principles of corporate governance recognise that the rights of stakeholders should be respected and protected. Similarly, the UK Corporate Governance Code notes that in order for a company to meet its responsibilities to its stakeholders, the board needs to 'ensure effective engagement with, and encourage participation from, these parties'.

Stakeholders can be internal, within the company (such as the directors and employees) or external to the company (such as most shareholders in a public company, lenders, customers, suppliers, regulators, pressure groups, and the general public).

Professional skills focus: Assimilating and using information

In order to assess corporate governance for an entity you should review and understand the interests of each stakeholder group presented in the scenario. You will need to prioritise key issues and stakeholders from the information provided.

2.1 Directors

The powers of directors to run the company are set out in the company's constitution or articles.

Within a single tier board structure, **executive directors** combine their role as a director with executive management responsibilities, but **non-executive directors** act solely in the capacity of a director.

Under company law in most jurisdictions, the legal duties of directors and responsibility for performance, controls, compliance and behaviour apply to both executive and non-executive directors.

Executive directors often have a conflict of interests, in matters such as remuneration, risk management and internal control, and financial reporting. Independent non-executive directors should act as a counterbalance to executive directors, and should help to ensure that conflicts of interest are avoided (or minimised).

It is important to recognise that executive directors in a company serve two functions: one as directors of the company and the other as executives in the management team.

2.2 Company secretary

In the UK, all public companies must have a company secretary. The company secretary is an important figure in ensuring compliance with legal and other regulatory frameworks, including the governance code. The most important governance duties are generally in the following areas:

(a) Arranging meetings of shareholders and the board of directors.

(b) Providing advice and information to members of the board on legislative, regulatory and governance issues. Under companies' legislation, the secretary (as an officer of the company) is held responsible for numerous breaches of law. Directors' priorities and areas of expertise may not be in the areas of governance and compliance.

(c) Assisting the chairman with the implementation of some governance practices, such as the induction of new directors and performance reviews of the board, its committees and individual directors.

(d) Providing information to board directors and acting as a communication link between the main board and the board committees.

(e) Providing administrative support to the board and its committees.

2.3 Executive management

The interests of senior managers below board level are similar to those of the executive directors in many respects, and there is a risk that these senior executives will seek to promote their personal interests even if these are in conflict with those of the shareholders and other stakeholders.

Although management below board level does not have ultimate responsibility for decision making within a company, their role in corporate governance is vital. The management team will be responsible for:

- helping to set the tone and ethical character of the company
- supervising the implementation of control and risk management procedures
- providing information that directors need to make decisions about strategy, risk management and control

Senior executives should also be accountable to the board for their performance, usually through the chief executive officer.

2.4 Employees

Other employees need to comply with the corporate governance systems that are in place.

Employees' contribution to corporate governance is to implement risk management and control procedures. If enforcement measures are lax or employees do not have the skills or knowledge necessary to implement procedures, governance will be undermined.

Employees also have a role in giving regular feedback to management and of whistleblowing serious concerns. OECD principles of corporate governance recommend that performance-enhancing mechanisms for employee participation should be permitted to develop.

As stakeholders in their company, employees have an interest in the company's objectives and performance, including the way that the company treats them, in terms of pay and working conditions.

2.4.1 Workforce engagement

The UK Corporate Governance Code emphasises the importance of companies understanding the views of key stakeholders and considering them in the company's decision making. In order to understand stakeholders' views, it is important company boards engage with stakeholders effectively.

A company's workforce is likely to play a key role in its on-going success, and therefore it is important that directors engage with staff: not only to listen to their issues and concerns, but also to benefit from suggestions and ideas they may have.

The Code also suggests that, in order to facilitate engagement with the workforce, companies use one, or a combination of, the following:

- a director appointed from the workforce, to give the workforce a 'voice' in the boardroom
- a formal workforce advisory panel
- a designated non-executive director (who spends more time in the business, getting an insight into the concerns of employees across the business).

2.5 External auditors

The external audit is one of the most important corporate governance procedures. It enables investors to have much greater confidence in the information that their agents, the directors/managers, are supplying. As well as giving assurance that the accounts give a true and fair view, external auditors can provide other audit services, such as social and environmental audits, and can also highlight governance and reporting issues of concern to investors.

External auditors are employed to scrutinise the activities of managers, who are the shareholders' agents. Their audit fees can be seen as an agency cost. This means that external auditors are also the shareholders' agents. A balance is thus required between working constructively with company management and, at the same time, serving the interests of shareholders.

The external auditors must develop a relationship with both the management of the company and also the audit committee, which has responsibility for oversight of the conduct of the audit.

2.6 Regulators

Definition

Regulation: Any form of interference with the operation of the free market. This could involve regulating demand, supply, price, profit, quantity, quality, entry, exit, information, technology, or any other aspect of production and consumption in the market.

Regulators can be important stakeholders in a company. The major regulators vary between different industries, and include government bodies, such as health and safety executives, and specific regulators such as the financial services authorities, utility regulators and charity commissioners, among many others relevant to specific types of industry.

The interest of regulators in companies is to ensure that companies comply with legal and regulatory requirements, and to take action against those that do not.

2.6.1 Methods of regulation

Legislators and regulators establish **rules and standards** that provide the impetus for management to ensure that risk management and control systems meet minimum requirements. They also **conduct inspections and audits** that provide useful information and recommendations regarding possible improvements. Regulators will be particularly interested in maintaining shareholder-stakeholder confidence in the information with which they are being provided.

Context example: Reasons for regulation

Regulations are imposed to:

- maintain consumer confidence in the financial system
- assure that a supplier on whom consumers rely (eg, of a major utility) does not fail
- protect consumers from fraud and misrepresentation
- prevent invidious discrimination against individuals
- assure that consumers receive sufficient information to make 'good' decisions, and are dealt with fairly

- assure fair pricing of financial services

Misconduct scandals cost Britain's banks and building societies almost £53 billion in fines and other penalties between 2000–2016. The mis-selling of payment protection insurance was, by far, the largest single factor in this, costing £37.3 billion, more than four times the cost of staging the 2012 London Olympics.

The founder of the think tank New City Agenda, which researched the figures, said: 'The profitability of UK retail banks has been imperilled by persistent misconduct and an aggressive sales based culture' and also that shareholders 'should be leading the campaign to change bank culture and raise professional standards' and 'demand significant clawback of bonuses from accountable managers.'

Source: 'Ten biggest bank scandals have cost £53bn in fines.' *Financial Times*, April 11 2016. Available at: www.ft.com [Accessed 28 July 2016]

2.6.2 Regulation and corporate governance

Regulation is important for corporate governance because companies should have an effective internal control system to ensure compliance with key regulatory requirements. All major banks, for example, have very large compliance departments.

In addition, there are some regulations that apply to the conduct of corporate governance. These include criminal laws that apply to activities such as money laundering, insider dealing and bribery; statutory duties of directors; some of the listing rules and disclosure and transparency rules that are applied to listed companies by stock market regulators; and requirements for listed companies to comply with the provisions of a corporate governance code (such as the UK Corporate Governance Code) or explain any non-compliance in their annual report: the 'comply or explain' approach being an aspect of corporate governance in the UK which has been widely copied.

2.7 Government

Most governments do not have a direct economic/financial interest in companies (except for those in which they hold shares). However, governments often have a strong indirect interest in companies' affairs, and therefore in the way they are run and the information that is provided about them:

(a) Governments raise **taxes** on sales and profits and on shareholders' dividends. They also expect companies to act as tax collectors for income tax and sales tax. The tax structure might influence investors' preferences for either dividends or capital growth. Economic policies such as deregulation may be influenced by the desire for economic growth and increased efficiency.

(b) Governments pass and enforce laws as well as establish and determine the **overall regulatory and control climate** in a country. This involves exertion of fiscal pressure, and other methods of State intervention. Governments also determine whether the regulatory framework is **principles or rules based** (discussed later in the Workbook).

(c) Governments may **provide funds** towards the cost of some investment projects. They may also encourage private investment by offering tax incentives.

(d) In the UK, the Government has made some attempts to encourage more private individuals to become company shareholders, by means of:

  – attractive **privatisation** issues (such as in the electricity, gas and telecommunications industries)

- **tax incentives**, such as Individual Savings Accounts (ISAs), to encourage individuals to invest in shares

2.8 Stock exchanges

Stock exchanges provide a means for companies to **raise money** and for investors to **transfer their shares** easily. They also provide information about company value, derived from the supply of, and

demand for, the shares that they trade. Stock exchanges and other financial market organisations list companies whose shares can be held by the general public (called public companies in many jurisdictions). Many such companies have a clear separation between ownership and management, although in some countries even large listed companies may have a large shareholder who also acts as board chairman and/or chief executive officer.

Stock markets and their regulators are important because they provide **regulatory frameworks** in principles-based jurisdictions. In most countries, listing rules apply to companies whose shares are listed on the stock exchange. Stock market regulation can therefore have a significant impact on the way corporate governance is implemented and companies report. The UK is a good example of this, with the 'comply or explain' approach being consistent with the tendency toward self-regulation adopted by many London institutions. In the US, by contrast, a more legalistic and rules-based approach has been adopted, in line with the regulatory approach that is already in place.

2.9 Institutional investors

Institutional investors have large amounts of money to invest. They are covered by fewer protective regulations, on the grounds that they are knowledgeable and able to protect themselves. They include investors managing funds invested by individuals and agents employed on the investors' behalf.

Institutional investors are now the biggest investors in many stock markets but they might also invest venture capital, or lend directly to companies. UK trends show that institutional investors can wield great powers over the companies in which they invest.

The major institutional investors in the UK are:

- pension funds
- insurance companies
- investment and unit trusts (set up to invest in portfolios of shares)
- venture capital organisations (investors particularly interested in companies that are seeking to expand)

The major institutional investors in Bangladesh are:

- Investment Corporation of Bangladesh (ICB)
- Scheduled Banks
- Merchant Banks
- Bangladesh Development Bank Limited (BDBL)
- Non-Bank Financial Institution (NBFI)
- Insurance Companies
- Leasing Companies
- Pensions Funds and Provident Funds
- Postal Savings Schemes
- Postal Life Insurance

- Co-operative Land Mortgage Banks
- Employees Insurance Funds and Security Deposits

Their funds will be managed by a fund manager who aims to benefit investors in the funds or pension or policy holders.

2.9.1 Advantages and disadvantages of institutional investment

In some respects, the **institutional investor** fulfils a desirable role. People should ideally be in pensionable employment or have personal pension plans. The funds from which their pensions will be payable should be held separately from the companies by whom they are employed. Similarly, investors should have the opportunity to invest through the medium of insurance companies, unit trusts and investment trusts.

However, the dominance of the equity markets by institutional investors has possibly undesirable consequences as well.

(a) Excessive market influence

For capital markets to be truly competitive, there should be no investors who are of such size that they can influence prices. In the UK, transactions by the largest institutions are now on such a massive scale that considerable price movements can result.

(b) Playing safe

Many institutions tend to avoid shares which are seen as speculative, as they feel that they have a duty to their 'customers' to invest only in 'blue chip' shares (ie, those of leading commercially sound companies). As a result, the shares of such companies tend to be relatively expensive.

(c) Short-term speculation

Fund managers are sometimes accused of 'short-termism' in that they will tend to seek short- term speculative gains or simply sell their shares and invest elsewhere if they feel that there are management shortcomings.

(d) Lack of power of investors

Investors in investment and pension funds cannot directly influence the policy of the companies in which their funds invest, since they do not hold shares themselves and cannot hold the company accountable at general meetings.

2.9.2 Role of institutional investors

UK guidance has placed significant emphasis on the role of institutional investors in promoting good corporate governance.

The UK Corporate Governance Code states that, in line with their responsibilities under the UK Stewardship Code, investors should engage constructively with companies, and discuss with them any departures from recommended practice.

2.9.3 UK Stewardship Code

Effective corporate governance calls for effort on the part of shareholders as well as boards of directors.

In the UK, institutional investors are encouraged to state their commitment to a Stewardship Code, first published in 2010 and most recently updated in 2020. This Code contains a number of principles that institutional investors and their advisors should apply as shareholders in listed companies, explaining how they are appropriate to their own specific context. The Stewardship Code states that asset owners and asset managers (ie shareholders) should consider the following:

(a) Purpose and governance - this includes promoting a culture of long term value creation which benefits the economy, the environment and society at large, recognising that various ethical threats and other risks may present obstacles
(b) Investment approach - embracing transparency and accountability within a framework that recognises the importance of environmental, social and ethical matters as well as the impact of climate change
(c) Engagement - working collaboratively to achieve investment objectives, including protocols for escalating relevant issues
(d) Exercising rights and responsibilities - actively fulfilling these rights and responsibilities

2.9.4 Means of exercising institutional investors' influence

A number of different methods may be effective.

(a) One to one meetings

These discuss strategy, whether objectives are being achieved, how the company is achieving its objectives and the quality of management.

(b) Voting

Most corporate governance reports emphasise the importance of institutional investors exercising their votes regularly and responsibly. If they are intending to oppose a resolution, they should normally state their intention in advance.

(c) Focus list

This means putting companies' names on a list of underperforming companies. Such companies' boards may face challenges.

(d) Contributing to corporate governance rating systems

These measure key corporate governance performance indicators, such as the number of non- executive directors, the role of the board and the transparency of the company.

2.9.5 Intervention by institutional investors

In extreme circumstances, the institutional shareholders may intervene more actively by, for example, calling a company meeting in an attempt to unseat the board. Reasons why institutional investors might intervene include:

- fundamental concerns about the strategy being pursued in terms of products, markets and investments
- poor operational performance, particularly if one or more key segments has persistently underperformed
- management being dominated by a small group of executive directors, with the non-executive directors failing to hold management to account
- major failures in internal controls, particularly in sensitive areas such as health and safety, pollution or quality
- failure to comply with laws and regulations or governance codes
- excessive levels of directors' remuneration
- poor attitudes towards corporate social responsibility

Context example: Shareholder activism

In July 2018, 70% of Royal Mail plc shareholders voted against the pay packages of senior executives, including new boss Rico Back. Ahead of the AGM, investor advisory firms ISS and Glass Lewis had urged shareholders to vote against the remuneration packages, criticising Royal Mail's decision to pay a higher salary to newly appointed chief executive Back than was paid to his predecessor Moya Greene. They also criticised Greene's £900,000 pay-off.

ISS said in a document: 'Support for the remuneration report is not considered warranted due to termination payments to the former CEO which exceed UK market norms and also include an element of guaranteed bonus payments. The company's treatment of the former CEO's bonus is not considered to be on a cost-neutral basis for shareholders and the disclosures in previous years have fallen short of accurate representation on termination provisions that have now fallen due. Finally, the newly appointed CEO's salary is at a level higher than that of the outgoing CEO.'

Source:http://www.proactiveinvestors.co.uk/companies/news/201156/royal-mail-shareholders-vote- against-pay-package-for-new-boss-rico-back-201156.html [Accessed 7 August 2018]

2.9.6 Stakeholder activism and the internet

Stakeholder activism in the era of the internet is powerful and widespread, with a significant increase over the last decade in the number of environmental and social activists. These groups can coordinate their activities using websites, email and mobile communications. This has put even more pressure on the expectations of corporate governance mechanisms, especially in the area of risk management.

2.10 Small investors

Small investors may not have the same ease of access to information that institutional investors possess, or the level of understanding of experts employed by institutional investors. Their portfolios are likely to be narrower and they may be less able to diversify risk away.

The OECD suggests that a key principle of corporate governance is that all shareholders should be treated **equally**. For example, in a takeover, minority shareholders should receive the same consideration and treatment as larger shareholders.

The OECD guidelines also stress the importance of achieving shareholder protection by enforcing the **basic rights of shareholders**. These include the right to secure methods of ownership registration, convey or transfer shares, obtain relevant and material information, participate and vote in general meetings and share in the profits of the company. Under the OECD guidelines,

shareholders should also have the right to participate in, and be sufficiently informed on, decisions concerning fundamental changes, such as amendments to the company's constitution.

2.11 Stakeholders and sustainability

Investors and other external stakeholders are placing increasing importance on environmental, social and governance (ESG) issues, recognising their importance in delivering long-term business value.

Equally, employees and management want to work for companies that are actively addressing ESG issues and giving back to society and the environment.

3 Role of boards

Section overview

- The effectiveness of the board as a mechanism for governance depends on the composition and balance of the board, the steps the board takes to maintain and improve its effectiveness and the roles played by the chairman as board leader, and by the non-executive directors and board committees.
- The most important areas in which the board must operate effectively are strategy setting, risk management and performance monitoring.

3.1 Role of board

The South African King Report (updated in November 2016) provides a good summary of the role of the board:

To define the purpose of the company and the values by which the company will perform its daily existence and to identify the stakeholders relevant to the business of the company. The board must then develop a strategy combining all three factors and ensure management implements that strategy.

The Principles of the UK Corporate Governance Code also identify the role of the board:

- To provide effective and entrepreneurial leadership for the company, and to promote its long- term, sustainable success, generating value for shareholders and contributing to wider society. [Principle A]
- To establish the company's purpose, value and strategy, and to satisfy itself that these are aligned with the company's culture. [Principle B]
- To ensure that the necessary resources are in place for the company to meet its objectives, and to measure performance against them. The board should also establish a framework of prudent and effective controls which enable risk to be assessed and managed. [Principle C]

Context example: Enron

One of the most significant scandals in the US in the last 20 years was the collapse of Enron, an energy company that by 2000 had grown into one of the world's largest corporations. Although investors were unaware at the time, the growth in Enron was attributable largely to misleading and questionable accounting practices. The company inflated the reported value of its assets (sometimes recording expenses as assets) and kept liabilities off its balance sheet by means of using special purpose entities. It also inflated reported profits by becoming the first non-financial company to use mark-to-market accounting methods, which enabled it to book profits 'up front' at the beginning of long-term contracts.

Senior management were motivated to continue reporting annual profits growth by the incentives in their remuneration scheme. Concerns about Enron's accounts began to emerge. A 'whistle blower' reported her concerns to the company CEO, but these were ignored. In October 2001, however, Enron eventually had to announce that it would be restating its profits for the previous four years to correct accounting violations. After the SEC announced an investigation into Enron's affairs, the stock price collapsed and the company's bonds were downgraded to junk bond status. The company filed for bankruptcy in December 2001.

The company's auditors were Arthur Andersen (AA), which was then one of the 'Big Five' global accountancy firms. The Houston office of AA took extraordinary measures to protect its client (whose head office was in Houston). AA attempted to cover up evidence of negligence in its audit work by destroying several tons of documents and large numbers of emails and computer files. Although a conviction for obstructing the court of justice was eventually overturned by the US Supreme Court, it was too late to save AA from loss of major clients and collapse.

Several senior executives of Enron were brought to trial and convicted of a number of financial crimes, including fraud, insider dealing, money laundering and conspiracy.

Enquiries into the scandal exposed a number of weaknesses in the company's governance. The company's management team was criticised for being arrogant and overambitious. The non- executive directors were weak, and there were conflicts of interest. The chair of the audit committee was Wendy Gramm. Her husband, Senator Phil Gramm, received substantial political donations from Enron.

3.2 Set-up of board

Worldwide there are a variety of governance models, based on different ways of formalising the distinction between those who manage a company (the executives) and those who monitor these managers (the directors).Where some executive managers are also company directors, arrangements should be in place for the monitoring of the executive directors by their non-executive colleagues.

3.2.1 Unitary boards – UK and US

The UK model of corporate governance is based on the idea of a unitary board, consisting of a mix of executive and non-executive directors. All directors **participate in board decision making**. All participants in the single board have **legal responsibility** for management of the company and strategic performance.

The US model is also based on a unitary board structure, although the proportion of non-executives on US boards may be higher than in UK companies.

3.2.2 Multi-tier boards – Germany

Institutional arrangements in German companies are based on a **dual board** (two-tier structure).

(a) Supervisory board

A **supervisory board** of non-executives includes workers' representatives and stakeholders' representatives, including banks' representatives. The supervisory board has no executive function, although it does review the company's direction and strategy and is responsible for **safeguarding stakeholders' interests**. It must receive formal reports of the state of the company's affairs and finance. It approves the accounts and may appoint committees and undertake investigations. The board should be composed of members who, as a whole, have the required **knowledge, abilities and expert experience** to complete their tasks properly and are sufficiently independent.

(b) Management board

A **management or executive board**, composed entirely of managers, will be responsible for the day to day **running** of the business. The supervisory board appoints the management board.

Membership of the two boards is entirely separate.

3.3 Board effectiveness

The UK Financial Reporting Council (FRC) published a Guidance on Board Effectiveness in 2018, to accompany the updated Corporate Governance. The Guidance on Board Effectiveness stresses that an effective board' defines the company's purpose and then sets a strategy to deliver it, underpinned by the values and behaviours that shape its culture and the way it conducts its business'.

An effective board will also be able to explain the main trends and factors affecting the company's long-term success (eg, technological change) and how these and the company's principal risks and uncertainties have been addressed.

One of the important characteristics of an effective board is that it makes well-informed, and high quality decisions. Factors that contribute to this include:

- robust debate in the boardroom, reflecting the diversity of skills and perspectives of the directors and avoiding 'group think'
- allowing sufficient time for debate and discussion of all issues within the board's remit
- obtaining input from key stakeholders
- obtaining expert opinions when necessary

The FRC guidance (2018) also stresses that boards need to be aware of factors that can limit effective decision making (and to try to avoid them):

- a dominant personality or group of directors on the board, inhibiting contribution from others
- insufficient diversity of perspective on the board, contributing to 'group think'
- excess focus on risk mitigation, or insufficient attention to risk
- treating risk as a compliance issue, rather than as part of the decision-making process
- insufficient knowledge and ability to test underlying assumptions
- failure to listen to, and act upon, concerns that are raised
- failing to recognise the consequences of running the business on the basis of self-interest and other poor ethical standards
- a lack of openness by management, reluctance to involve non-executive directors, or a tendency to bring matters to the board for sign-off, rather than debate
- complacent or intransigent attitudes
- inadequate information or analysis; poor quality board papers
- lack of time for debate, and truncated debate
- undue focus on short-term time horizons (rather than longer-term issues)

3.3.1 Board size

A board should be neither too large nor too small. A large board provides more opportunities for **varied views** to be put forward, and with a large board it is easier to divide responsibilities (such as membership of board committees) and to deal with personnel changes when they occur. However, a large board can make it difficult to reach quick decisions when these are needed and to achieve consensus in decision making.

A complex company operating in a complicated environment may need a bigger board to have access to a wide range of skills and experience. On the other hand, a company operating in a fast- moving environment where rapid decision making is required may be better served by a smaller board.

3.3.2 Board composition

In order to carry out their roles effectively, directors collectively need to have **relevant expertise** in the industry, the company's affairs, key functional areas and governance.

The UK Corporate Governance Code states that 'the board and its committees should have a combination of skills, experience and knowledge.'

No individual, or small group of individuals, should be allowed to dominate decision making by the board. An important way of ensuring this is by having an appropriate combination of executive and non-executive (and, in particular, independent non-executive) directors on the board. The UK Corporate Governance Code states that 'at least half the board, excluding the chair, should be non- executive directors whom the board considers to be independent.'

Context example: Board composition grid

Guidance, published by PwC and the Institute of Internal Auditors Research Foundation, highlights the use of a grid to help a board analyse what skills and experience it needs. The grid lists the skills, experience and attributes required, and which directors possess them, and decides whether there are any areas in which the board is lacking. The example grid given lists the following:

- financial literacy
- financial expertise
- industry expertise
- international expertise
- operational experience
- technology expertise
- governmental/regulatory experience
- social/environmental expertise
- marketing expertise
- gender diversity
- ethnic diversity

However, the FRC Guidance on Board effectiveness highlights that in addition to 'technical' skills and experience, it is also important to consider directors' personal attributes to ensure they display a range of 'softer skills'; for example, openness, honesty, the ability to forge relationships, and the ability to develop trust.

3.3.3 Diversity

The UK Corporate Governance Code states that 'appointments to the board should be subject to a formal, rigorous and transparent procedure.' The Code also highlights that appointments 'should be based on merit and objective criteria [ie, avoiding discrimination] and, within this context, should promote diversity of gender, social and ethnic backgrounds, cognitive and personal strengths.'

Diversity can have a positive effect on the quality of decision making by directors, by reducing the risk of group think. Directors will be more likely to make good decisions and maximise the opportunities for the company's success if the right skillsets and an appropriate breadth of perspectives are present in the boardroom.

Context example: Board composition and diversity

Britain's most successful companies tend to have a large proportion of women in senior management roles, but the UK lags behind the US and Australia on board diversity.

A 2018 report by McKinsey highlighted that the proportion of women on FTSE boards has grown since 2011, but while women now make up around a third of non-executive directors, their representation among senior management teams is much lower.

UK firms are well above the global average, with around 15% of executive roles held by women, but in the US that figure is 19%, and in Australia it is 21%. In 2018 (at the time of the report) only seven FTSE 100 companies had women chief executives.

From April 2018, all UK companies with at least 250 staff have to publish the gap between what they pay men and women.

Source: https://www.telegraph.co.uk/business/2018/01/19/britains-successful-companies-have- women-senior-roles/ [Accessed 7 August 2018]

3.3.4 Independence

Definition

Independence:

(a) There should be a clear set of governance principles for anyone working in this capacity, addressing issues such as culture, incentives and ethics and how they promote effective stewardship.

(b) Anyone signing up to these principles should respond appropriately to the risks presented by the market including those of an environmental, social and governance nature.

The avoidance of being unduly influenced by vested interests and being free from any constraints that would prevent a correct course of action being taken. It is an ability to stand apart from inappropriate influences and be free of managerial capture, to be able to make the correct and uncontaminated decision on a given issue.

There are two aspects to independence of board directors.

(a) Independence, in particular freedom from conflict of interests and a willingness to consider issues objectively and in the best interests of their company, is important for all directors. All directors should be independent-minded.

(b) However, there is a risk that executive directors, and non-executives with a long association with the company, may find it difficult to be entirely independent. They may be inclined to side with executive management on certain matters, such as budgets and investments. In some areas of governance, such as executive remuneration, executive directors have a clear conflict of interests. It is therefore considered good governance practice for a certain number of board directors to be both non-executives and also clearly independent from the company. These are 'officially' recognised by the company as **independent non-executive directors (NEDs)**.

Independent NEDs should play a key role in challenging the views of their executive colleagues.

It is generally recognised that the independence of NEDs will tend to erode over time as they become more familiar with the company. The UK Corporate Governance Code therefore includes a provision that if a director has served on a board for more than nine years this is likely to impair, or could appear to impair, a NED's independence. If a NED has been on the board for more than nine years, but is still considered to be independent, a clear explanation should be provided as to why this is the case.

3.3.5 Matters reserved for decision making by the board

Most codes emphasise that the board should have a **formal schedule of matters** specifically reserved to it for decision at board meetings.

Some decisions should clearly be taken by the board, such as decisions to approve the financial statements and annual report; decisions about dividends; and decisions about inviting new members to join the board.

The board should also approve the annual budget and the company's overall strategic objectives. It should monitor the company's performance, and require management to present regular budgetary control reports for review and questioning by the board.

The board should normally expect to make decisions about:

- major acquisitions
- major investments
- borrowing decisions (such as bond issues and share issues)
- the company's appetite for strategic and financial risk
- the use of financial derivatives

Context example: Board agenda

The Code of Corporate Governance for Bangladesh provides a fuller list than many other codes, identifying the range of matters a board must consider. This list partly reflects local concerns:

- annual operating plans and budgets, together with updated long-term plans
- capital budgets, manpower and overhead budgets
- quarterly results for the company as a whole and its operating divisions or business segments
- internal audit reports, including specific, material cases of theft and misconduct
- cause, demand and prosecution notices received from revenue authorities
- fatal or serious accidents and any effluent or pollution problems
- default in payment of interest or principal on any public deposit, secured creditor or financial institution
- any possible public or product liability which is material and estimable

- details of any joint venture or collaboration agreement
- recruitment and remuneration of senior officers just below board level, including appointment or removal of the company secretary and most senior financial officers
- any labour issues and their proposed resolution

3.3.6 Board performance appraisal

Appraisal of the board's performance and effectiveness is an important control, aimed at **improving board effectiveness, maximising strengths and tackling weaknesses**. The UK Corporate Governance Code recommends that **performance of the board, its committees, the chair and individual directors** should be formally **assessed annually**. The Code also suggests that the chair should consider having a regular, externally facilitated board evaluation.

Board evaluation can bring benefits from improved performance by the board, its committees and individual board members by recognising their strengths and identifying any weaknesses and acting to deal with them.

An annual performance review can also help the chairman and nomination committee to plan changes to the composition of the board, by comparing the range of skills and experience that the board and its committees need with the current composition and competences of the board membership.

Context example: Board effectiveness

An ICAEW website article ('Board evaluations and effectiveness reviews') suggests that subsidiary company boards are often training grounds in listed companies, and encouraging good governance through performance reviews at this subsidiary level can pay dividends at group level later on.

https://www.icaew.com/en/technical/corporate-governance/uk-corporate-governance/board- evaluations-and-effectiveness-reviews

3.4 Chairman and chief executive officer:

The most important point in the leadership of a company is that there are two roles at its head:

- **Chairman** – Leader of the board
- **Chief executive (CEO)** – Leader of the executive management team

3.4.1 Role of CEO

The CEO is responsible for **running the organisation's business** and for **proposing and developing the group's strategy** and **overall commercial objectives**, in consultation with the directors and the board. The CEO shapes the values, principles and major operating policies on which the internal control systems are based. The CEO will examine major investments, capital expenditure, acquisitions and disposals and be responsible for identifying new initiatives. The CEO **manages the risk profile and control systems of the organisation**.

The CEO is also responsible for **implementing the decisions of the board** and its committees, **developing the main policy statements** and **reviewing** the business's **organisational structure and operational performance**.

The CEO is the senior executive in charge of the management team and is answerable to the board for its performance. They will have to formalise the roles and responsibilities of the management team, including determining the degree of delegation.

3.4.2 Division of responsibilities

One of the most controversial areas of corporate governance has been whether the roles of chairman and CEO can be held by the same person.

All governance reports acknowledge the importance of having a division of responsibilities at the head of an organisation to avoid the situation where one individual has **unfettered control** of the decision making process. This can be achieved by the roles of **chairman** and **CEO** being held by two different people, which has the following advantages.

(a) Demands of roles

It reflects the reality that both jobs are **demanding roles** and, ultimately, the idea that no one person would be able to do both jobs well.

(b) Authority

The chairman **carries the authority of the board**, whereas the CEO has the authority that is **delegated by the board**. Separating the roles emphasises that the chairman is acting on behalf

of the board, whereas the CEO has the authority given in their **terms of appointment**. Having the same person in both roles means that **unfettered power** is concentrated into one pair of hands.

(c) Conflicts of interest

The separation of roles avoids the risk of **conflicts of interest**. The chairman can concentrate on representing the interests of shareholders.

(d) Accountability

The board cannot make the CEO **truly accountable** for management if it is chaired by the CEO.

(e) Board opinions

Separation of the roles means that the board is more able to express its concerns effectively by providing a point of reporting (the chairman) for the NEDs.

(f) Control over information

The chairman is responsible for obtaining the information that other directors require to **exercise proper oversight and monitor the organisation effectively**. If the chairman is also CEO, then directors may not be sure that the information they are getting is sufficient and objective enough to support their work.

(g) Compliance

Separation enables compliance with governance best practice and hence reassures shareholders.

Context example: Facebook

In May 2019, Mark Zuckerberg, the founder of Facebook faced a shareholder revolt which wanted to strip him of being chairman of the company, as well as chief executive.

Shareholders voiced concerns that Mr Zuckerberg's dual roles concentrated too much power on a single person, as well as severely limiting the board's ability to control or change things in the company.

The shareholders' motions, presented at the AGM, followed a torrid year for the company, in which it faced a number of scandals from data breaches, fines and election meddling (through the improper selling of data to Cambridge Analytica).

However, Mr Zuckerberg, who controls around 58% of the voting rights at Facebook, was able to vote down the shareholders' proposals.

3.5 Non-executive directors (NEDs)

Definition

Non-executive directors: Directors who have no executive (managerial) responsibilities.

Under the UK unitary board system there is no legal distinction between executive directors and NEDs. NEDs have the same legal duties, responsibilities and potential liabilities as executive directors, even though they are not expected to give the same continuous attention to the company's business.

However, as the UK Corporate Governance Code notes, NEDs have a key role in **scrutinising and holding to account** the performance of management and individual executive directors against their performance objectives.

NEDs on the **remuneration committee** are responsible for deciding the appropriate levels of remuneration for executive directors, while NEDs on the **audit committee** are responsible for monitoring the integrity of a company's financial statements, and reviewing its internal financial controls and internal control and risk management systems.

NEDs also have a prime role in succession planning, and in the appointment and removal of executive directors.

3.5.1 Contribution of NEDs

NEDs can contribute to a board of directors in various ways.

(a) Experience and knowledge

They may have **external experience and knowledge which executive directors do not possess.** The experience they bring can be in many different fields. They may be executive directors of other companies and have experience of different ways of approaching corporate governance, internal controls or performance assessment. They may also bring knowledge of markets within which the company operates, the mechanisms of government or financial skills.

(b) Varied roles

The English businessman, Sir John Harvey-Jones, pointed out that there are **certain roles** NEDs are well-suited to play. These include 'father-confessor' (being a confidant for the chairman and other directors),'oil-can'(intervening to make the board run more effectively) and acting as 'high sheriff' (if necessary, taking steps to remove the chairman or CEO).

The most important advantage perhaps lies in the dual nature of the NED's role. NEDs are full board members who are expected to have the level of knowledge that full board membership implies.

At the same time, they are meant to provide the so-called strong, independent element on the board. This should imply that they have the knowledge and detachment to be able to monitor the company's strategy and affairs effectively. In particular, they should be able to assess fairly the remuneration of executive directors when serving on the remuneration committee, be able to discuss knowledgeably with auditors the affairs of the company on the audit committee, and be able to scrutinise strategies for excessive risks.

The UK Corporate Governance Code recommends that at least half the members of boards of large listed companies, excluding the chairman, should be independent NEDs.

Interactive question 1: Recruitment of non-executive directors

QP is a major quoted company that manufactures industrial chemicals. The company's board comprises a chief executive and five other executive directors, a non-executive chairman and four non-executive directors.

Two of the non-executive directors have served on QP's board for five years. The company has a policy of asking non-executive directors to stand down after six years and so the chairman has established a nominations committee to start the process of selecting replacements.

Three replacements have been suggested to the nominations committee. The nominees are:

- Adrian, who is on the main board of City Pensions, an investment institution which owns 6% of QP's equity. Adrian has worked for City Pensions for 15 years and has always worked in the management of the company's investments, initially as an analyst and, more recently, as director in charge of investments. Before working for City Pensions, Adrian was an investment analyst with an insurance company for 15 years.
- Nicole, who is a Chartered Accountant, is about to retire from full-time work. Nicole has had a varied career, including acting as a management accountant with an engineering company and finally as a senior accountant with a commercial bank. Nicole was promoted to the bank's board and has been finance director for seven years.
- Helen, who is a former politician. After a brief career as a journalist, Helen became a member of parliament at the age of 40. After spending 20 years as a politician, including several years as a government minister, Helen has recently retired from politics at the age of 60. Helen already holds two other non-executive directorships in companies that do not compete with, and are not in any way connected to, QP.

Requirement

Evaluate the suitability of each of the three nominees. Your answer should include arguments for and against each of the nominees.

See **Answer** at the end of this chapter.

3.6 Board committees

Many company boards establish a number of board committees with responsibility for supervising specific aspects of governance. A committee system does not absolve the main board of its responsibilities for the areas covered by the board committees.

For a committee structure to work effectively, there needs to be effective communication and constructive relationships between the committees and the full board.

The committees with governance responsibilities consist entirely or mainly of independent

NEDs and some NEDs are therefore likely to be members of more than one board committee.

3.6.1 Nomination committee

The main task of the nomination committee is to recommend new appointments to the board. A very important consideration is whether the current board has the **skills, knowledge and experience** necessary to take sound strategic decisions and to run the company effectively. This must be balanced against wider factors such as the executive–non-executive balance, continuity and succession planning, and size and diversity of the board.

The nomination committee may also take the lead in ensuring that each committee has members with the right skills and experience, and that board members understand their role(s) within the board structure.

The board chairman also has responsibilities for ensuring that the composition of the board meets the requirements of the company, and in the UK it is common in listed companies for the board chairman also to be the chairman of the nomination committee (although the chair of the board must not chair the committee if it is dealing with the appointment of their successor).

3.6.2 Audit committee

The audit committee is responsible for:

(a) liaising with the external auditors and monitoring auditor independence

(b) monitoring the external audit and reviewing the financial statements

(c) monitoring the effectiveness of the internal control system and risk management system

(d) supervising the internal audit function (or if there is no internal audit function, considering each year the need for one)

The audit committee's responsibilities in relation to risk management will depend on whether there is a separate risk committee of the board. This includes confirming that there is a **formal policy** in place for **risk management** and that the policy is backed and regularly monitored by the board. The committee should also **review** the **arrangements**, including training, for ensuring that managers and staff are aware of their responsibilities. Committee members should use their own knowledge of the business to confirm that risk management is updated to **reflect current positions and strategy**.

The UK Corporate Governance Code states that the board of directors should monitor a company's risk management and internal control system, and, at least annually, review their effectiveness and report on this in the annual report.

The audit committee is responsible for assessing the **independence and objectivity** of external audit and the effectiveness of the external audit process. Its roles in this area include:

(a) Being responsible for recommending the **appointment, reappointment or removal of the external auditors**, as well as fixing their remuneration.

(b) Considering whether there are **any other threats to external auditor independence.** In particular, the committee should consider **non-audit services** provided by the external auditors, paying particular attention to whether there may be a **conflict of interest**.

(c) **Discussing the scope of the external audit** prior to the start of the audit. This should include consideration of whether external audit's coverage of all areas and locations of the business is fair, and how much external audit will rely on the work of internal audit.

(d) Acting as a **forum for liaison** between the external auditors, the internal auditors and the finance director.

(e) **Helping the external auditors to obtain the information** they require, and resolving any problems they may encounter.
(f) **Making themselves available** to the external auditors for consultation, with or without the presence of the company's management.
(g) Dealing with any **serious reservations** which the external auditors may express either about the accounts, the records or the quality of the company's management.

Interactive question 2: Audit committee

KPN is a major hotel group that will shortly be seeking a flotation on the stock market in its country. At present, the company does not have any non-executive directors or an audit committee. One of KPN's most significant local competitors, NN, has recently collapsed; some of the competitor's shareholders have raised issues about the ineffectiveness of the non-executive directors and in particular, the failure of the audit committee to deal with major accounting problems. As this news story is topical, the directors of KPN want to understand why NN's non-executive directors might have failed to exercise sufficient supervision, and how the audit committee that KPN will be required to establish can function effectively.

Requirements

1.1 Explain the limitations of depending on non-executive directors to improve corporate governance.

1.2 Explain how the effectiveness of audit committees can be enhanced.

See **Answer** at the end of this chapter.

3.6.3 Remuneration committee

The remuneration committee is responsible for:

(a) advising the board on executive director remuneration policy; and
(b) negotiating and agreeing the specific remuneration package for each executive director, and usually for senior executives below board level, in accordance with the board's remuneration policy.

The UK Corporate Governance Code highlights that: 'Remuneration policies and practices should support strategy and promote long-term sustainable success. Executive remuneration should be aligned to company purpose and values, and be clearly linked to the successful delivery of the company's long-term strategy.'

Areas of contention about senior executive remuneration may be:

(a) The proportion of remuneration that should be fixed salary and the proportion that should be performance related
(b) The balance between short-term incentives (typically annual bonuses) and long-term incentives (typically share options or grants of shares)
(c) The size of remuneration packages, especially the potential size of performance-related bonuses and share awards, and when the size of executive remuneration is compared to that of 'the average worker' in a company
(d) The extent to which annual bonuses focus on short-term financial performance; alternatively the excessive diversity of multiple performance targets for annual bonuses
(e) Rewards for failure: large payments to directors who are forced to resign

In the UK, quoted companies are now required to submit their remuneration policy to the shareholders for approval at least every three years. The shareholders' vote is binding, and companies are then required to ensure that remuneration packages for executives comply with the policy.

3.6.4 Risk committee

Some listed companies have a risk committee of the board. The risk committee is responsible for **overseeing the organisation's risk management systems**. It is not a compulsory committee under most governance regimes. However, listed companies that are subject to significant financial market risk (such as banks) will usually have a risk committee. To be effective, the committee members collectively will need a high level of expertise in finance and/or risk management.

Professional skills focus: Assimilating and using information

We shall examine the risk committee's work further in the next chapter.

In the exam you may be required to suggest how an organisation could improve corporate governance through its use of board committees. It is important to be familiar with the types of committee and their respective roles so you can confidently identify appropriate solutions to corporate governance weaknesses.

3.7 Strategy setting and the board

Boards are responsible for corporate strategy but they can manage strategic development in different ways.

Boards in larger companies usually adopt more of a **stewardship role** – directors approve strategic plans, but strategic management and development and strategy implementation are the responsibility of the executive team. There can be a risk that the board will delegate too much responsibility for strategy to management. Good governance requires that major strategic decisions and overall guidance on risk should be the decision-making responsibility of the board.

Michael Porter has emphasised the importance of a **clear strategic leader** who 'takes ownership' of strategic development and is accountable to the board for its success or failure. The obvious strategic leader is the CEO.

In theory, other executive directors and managers should be able to assist the CEO by providing the benefit of their own experience and knowledge.

3.8 Risk management and the board

3.8.1 Board responsibilities

The board has overall responsibility for the effectiveness of risk management in its company. The UK Corporate Governance Code states that the board is responsible for deciding the **nature** and **extent** of the principal risks a company is willing to take in order to achieve its long-term strategic objectives. They should confirm that they have carried out an assessment of the principal risks facing the company, including those that threaten future performance and solvency, and how such risks can be managed.

In 2009 COSO (the Committee of Sponsoring Organizations of the Treadway Commission in the US) published a paper, *Strengthening Enterprise Risk Management for Strategic*

Advantage ,which provides guidance on enhancing the board's risk management capabilities.

(a) **Discuss risk management philosophy and risk appetite**

The board and senior management have to understand the level of risk that they want their company to take, including whether it is consistent with stakeholder expectations. Risk appetite should be a key element in objective setting and strategy selection, and will also determine risk management processes.

The COSO guidance suggests that as a starting point, the board should consider the strategies that they would not be interested in pursuing, due to the **level of risk** involved or the **inadequacy of returns** for the risks incurred. The guidance suggests a series of questions that can be used to help determine risk appetite:

- Do shareholders want us to pursue high risk/high return businesses, or do they prefer a more conservative, predictable business profile?
- What is our desired risk rating?
- What is our desired confidence level for paying dividends?
- How much of our budget can we subject to potential loss?
- How much earnings volatility are we prepared to accept?
- Are there specific risks that we are not prepared to accept?
- What is our willingness to consider growth through acquisitions?
- To what extent are we willing to expand our product, customer or geographical coverage?
- What amount of risk are we willing to accept on new initiatives to achieve a specified target?

(b) Understand risk management practices

Boards need to ensure that an awareness of risk and a culture of risk management permeates the organisation, and that risk management practices and procedures are applied by all managers and staff.

(c) Review portfolio risks in relation to risk appetite

Boards need to **understand the portfolio of risk exposures** facing their company so that they can determine whether these are consistent with stakeholders' tolerance of risk and the board's appetite for risk.

(d) Be appraised of the most significant risks and related responses

Since risks are continuously evolving and changing in character and significance, risk management processes need to ensure that timely and robust information about risks is provided. Board members need to have sufficient experience, training and knowledge of the business to discuss properly the risks that the business faces.

3.8.2 Strategic risks and operating risks

A distinction can be made between strategic risks and operating risks.

(a) **Strategic risks** are risks that come from the environment in which the business operates. These include risks from competition, and risks from changes within the industry and in customer/consumer demand. They also include risks in the broader business environment, such as economic risks, financial market risks, risks from technological change or political or regulatory change.

(b) **Operating risks** are risks of failure in processes and procedures within the company's operating activities. These may be classified as financial reporting risks (risks of errors or failures in accounting systems and financial reports); compliance risks (risks of failure to comply with laws and regulations); and general operational risks (risks of failures due to human error, deliberate fraud, machine and technology failures and failures in procedures and processes).

Context example: Risk in the cloud

The risks associated with cloud computing have gained prominence in recent years. Sensitive information is passing through third-party cloud providers and organisations face new risk management concerns.

- Who decides what information should be stored and shared in the cloud?
- Who safeguards company data in the cloud and manages the associated risks?

The increase in cloud services has created new responsibilities for IT functions, with internal audit needing to make cloud-related risks a priority in terms of IT risk management, security and privacy. However, while the use of the cloud for data and applications storage can cut IT costs and speed up operations, less than 10% of the world's data is currently stored in the cloud, with data security issues such as those mentioned above being a key concern. Companies need to be happy to hand control of their data to a cloud services provider, who provides the resources for storing the data, but does not necessarily control how it is to be protected from corruption, loss or theft. Common security methods include encryption and two factor authentication.

Source: 'Can we trust cloud providers to keep our data safe?' *BBC*, 29 April 2016.

Available at: www.bbc.co.uk [Accessed 28 July 2016]

Strategic risks should be recognised and monitored within the strategic management process. Operating risks should be controlled by an effective internal control system.

The board is responsible for ensuring that there are effective systems for risk management and internal control. The implementation of controls, including the design of internal controls, is the responsibility of management. The board is responsible for review of effectiveness, and should seek assurance that risk management and internal control systems remain effective, and ensure that measures are taken by management to rectify any weaknesses that are identified.

Professional skills focus: Assimilating and using information

All businesses are subject to risk and, whilst risk cannot be completely eliminated, suitable mitigating

actions and controls can be put in place. As a professional accountant it is important to be able to identify strategic and operating risks and to make suitable recommendations to manage them.

3.8.3 Review of risk

The board should review on a **regular basis**:

(a) The nature of the risks facing the company and its business, and the systems for identifying and recording risks

(b) The processes for risk assessment –the potential scale of the risk and the probability that adverse risk events will occur
(c) The measures that are in place for managing risks –to keep business strategy within tolerable risk limits, to reduce the likelihood that risk events or operating failures will occur, to insure against adverse risk events or to avoid risks
(d) The systems and procedures that are in place for the regular review/monitoring of risk and risk management by the executive management team
(e) The costs of operating particular controls, compared to their benefits

The board should focus on serious risks, whether they are long term or short term; and strategic or operational.

Boards should review risks and internal control as a regular part of their agenda. As we have already mentioned, the UK Corporate Governance Code, for example, states that the board should review the effectiveness of the risk management and internal control systems at least annually. A key aspect for the directors to consider is the **frequency of monitoring of risks by management**. Some risks may need to be monitored daily (for example, foreign exchange risks in a global company); others much less frequently.

Ineffective monitoring increases the likelihood of control breakdowns, which could materially impact an organisation's ability to achieve its objectives. **Inefficient** monitoring leads to a lack of focus on the areas of greatest need. The **size of the organisation** and the **complexity of its operations and controls** will be key determinants of the scale of monitoring required to obtain satisfaction as to the effectiveness of the risk management and internal control systems.

3.8.4 Review of internal control

In order to carry out an effective review of internal control, the board (or the audit committee) should regularly receive and review reports and information on internal control, concentrating on:

(a) What the **risks** are, and strategies for **identifying**, **evaluating** and **managing** them

(b) The **effectiveness** of the management and internal control systems in the management of risk; in particular, how risks are **monitored** and **how** any **weaknesses** have been dealt with

(c) Whether **actions** are being taken to **reduce** the risks found

(d) Whether the results indicate that **internal control** should be **monitored more extensively**

Annual reports should contain an **assessment** of the **effectiveness** of the **internal control over** financial **reporting**, and a statement identifying the framework used by management to evaluate the effectiveness of the company's internal control over financial reporting. External auditors should report on this assessment, having carried out independent testing of the control system.

Interactive question 3: Internal control review

2.1 What sort of information would help the board carry out an effective review of internal control?
2.2 What sort of employee attitudes would help or hinder an effective review of internal control?

See **Answer** at the end of this chapter.

The 2014 FRC *Guidance on Risk Management, Internal Control and Related Financial and Business Reporting* provides more detailed suggestions about what should be assessed as part of the regular review of internal controls:

Risk appetite and culture	• How has the board agreed the company's risk appetite? With whom has it conferred? • How has the board assessed the company's culture? In what way does the board satisfy itself that the company has a 'speak-up' culture and that it systematically learns from past mistakes? • How do the company's culture, code of conduct, human resource policies and performance reward systems support the business objectives and risk management and internal control systems? • How has the board considered whether senior management promotes and communicates the desired culture and demonstrates the necessary commitment to risk management and internal control? • How is inappropriate behaviour dealt with? Does this present consequential risks? • How does the board ensure that it has sufficient time to consider risk, and how is that integrated with discussion on other matters for which the board is responsible?
Risk management and internal control systems	To what extent do the risk management and internal control systems underpin and relate to the company's business model? • How are authority, responsibility and accountability for risk management and internal control defined, coordinated and documented throughout the organisation? How does the board determine whether this is clear, appropriate and effective? • How effectively is the company able to withstand risks, and risk combinations, which do materialise? How effective is the board's approach to risks with 'low probability' but a very severe impact if they materialise? • How has the board assessed whether employees have the knowledge, skills and tools to manage risks effectively? • What are the channels of communication that enable individuals, including third parties, to report concerns, suspected breaches of law or regulations, other improprieties or challenging perspectives? • How does the board satisfy itself that the information it receives is timely, of good quality, reflects numerous information sources and is fit for purpose? • What are the responsibilities of the board and senior management for crisis management? How effectively have the company's crisis management planning and systems been tested? • To what extent has the company identified risks from joint ventures, third parties and from the way the company's business is organised? How are these managed? • How effectively does the company capture new and emerging risks and opportunities?
	• How and when does the board consider risk when discussing changes in strategy or approving new transactions, projects, products or other significant commitments? • To what extent has the board considered the cost-benefit aspects of different control options? • How does the board ensure it understands the company's exposure to each principal risk before and after the application of mitigations and controls, what those mitigations and controls are and whether they are operating as expected?

Monitoring and review	• What are the processes by which senior management monitor the effective application of the systems of risk management and internal control? • In what way do the monitoring and review processes take into account the company's ability to re-evaluate the risks and adjust controls effectively in response to changes in its objectives, its business, and its external environment? • How are processes or controls adjusted to reflect new or changing risks, or operational deficiencies? To what extent does the board engage in horizon scanning for emerging risks?

3.8.5 Role of assurance procedures

Companies are increasingly asking accountants to provide assurance reports on specific operations or functions, in order to enable them to provide comfort to interested stakeholders. In the context of risk management, the subject matter for an assurance engagement may take various forms. The International Framework for Assurance Engagements gives the following examples:

- Systems and processes (such as the internal control system or IT system) which require assurance as to their effectiveness
- Behaviour (such as corporate governance, compliance with laws or regulation, human resource practices) which requires assurance as to compliance or effectiveness

To carry out any reviews effectively, the board is likely to have to rely on work by the **internal audit** function on the risk management and control systems. In the absence of an internal audit function, sufficient assurance should be obtained from other sources, such as assignments by an external accountancy firm.

Internal auditors will again be concerned to see that managers have made **adequate responses to risks**, have **designed robust risk management processes and internal control systems**, and that these risk management processes and controls **operate to mitigate the risks**.

Context example: Political risk

There are areas of political risk where internal audit may provide assurance about the adequacy of a company's control systems:

- For a company's new or existing investments or operations, and for sales or supply chains in international markets, monitoring rapid economic growth, instability or deterioration, increasing levels of foreign investment and significant changes in political leadership
- Reviewing potential changes in regulations or trade agreements; also any indications of social unrest or other looming security issues

Having taken an overall view earlier in the audit, internal auditors will concentrate on the **adequacy of risk management processes** and **controls** for each area to be covered, determine whether these processes are operating as intended, and seek to promote improvements where processes are inadequate or not operating as required.

Internal auditors will assess the **operation and effectiveness** of the **risk management processes** and the **internal controls** in operation to **limit risks**. A comprehensive risk audit will extend to the risk management and control **culture**.

Internal auditors' work on controls would include:

- reviewing the processes for identifying risks
- identifying the procedures for identifying and assessing risks, and controls at a corporate and operational level
- reviewing the completeness of documentation of risks and risk management measures
- testing controls
- advising on the contents of the board's statement to shareholders on the internal control system and the disclosure of material weaknesses

3.9 Performance monitoring and the board

Boards should monitor the performance of the company and its management. (One of the board's key responsibilities is to measure a company's performance against its objectives.) Performance monitoring is carried out mainly by means of regular reporting to the board by executive management. Typically the CEO, supported by the finance director, will submit performance reports to the board for scrutiny.

Actual performance should be compared with a benchmark, which may be a budget or a longer- term business plan or investment plan. Actual and plan are compared initially by means of key performance indicators or performance metrics.

3.9.1 Choice of metrics

We shall discuss data analysis and choice of metrics in Data analysis but, as a general principle, directors need to ensure that metrics link to the key **value drivers** of the business that relate to its strategy. For example, sales growth should be linked to new product sales or repeat business; and profit margin to prices, costs and sales volumes.

Identification of **leading indicators** that can predict future difficulties is particularly important. For example, falling customer satisfaction can result in future falls in revenue and a decline of the company's brand; however, in order to monitor this threat to future performance the board would need performance reports on customer satisfaction. Much of the financial information the board receives will be historical, and so will often be a **lagging indicator –** a measure of problems that have already occurred.

Some **non-financial matters**, for example customer and staff satisfaction, will be as important as financial matters. Many boards adopt a balanced scorecard approach, grouping key performance indicators into a number of different performance areas and setting targets for each performance indicator.

3.9.2 Setting performance targets

Having identified the metrics, the board must then decide the **targets** for those metrics. There needs to be a **mix of short- and long-term targets** and the targets may need to change if there are significant changes in external circumstances. Boards also need to be aware of investors' and analysts' views on what targets they expect companies to meet. A consistent failure to meet targets should trigger board action before investors exert pressure.

The board may consider the following issues when deciding whether to investigate further or take action:

(a) **Materiality – Small variations in a single period** are bound to occur and **are unlikely to be significant**.

(b) **Controllability** – Controllability must also influence the decision of whether to investigate further.

(c) **Variance trend** – If the same variance is £1,000 adverse every month, the **trend** indicates that the process is **in control** and the standard has been wrongly set.

3.9.3 Analysing information about metrics: revising forecasts

Directors need to obtain assurance from management that the metrics that are being reported are based on reliable data. Internal audit work may also provide assurance. Even if this assurance is obtained, directors should analyse the information critically, comparing it with their own knowledge of the company and external sources of information.

Another approach to obtaining assurance about performance is to obtain revised forecasts of expected future results.

A significant difference between a revised forecast and the original plan is likely to be much more significant than a comparison of performance to date with the plan.

Forecasts are a source of assurance to shareholders and lenders, as well as to the board itself. Listed companies often make announcements to the stock market about their expected results for the financial year, and update this information whenever the forecast changes.

4 Organisational structures and strategies

Section overview

The effectiveness of governance arrangements may significantly depend on how well organisational structure matches strategic and governance aims. We discussed business structure in depth in Strategic implementation, and the issues discussed there are relevant, particularly the section on choosing a structure. In this section, we are interested in the suitability of corporate governance and organisational structures for implementing strategy.

4.1 Organisational structure

For governance purposes, an appropriate organisation structure depends on several factors.

(a) **The size of the organisation**. Size may be measured by number of employees, total assets and resources, and scale of activities.

(b) **Risks** to which the organisation is exposed and the risk management systems that will be required.

(c) **Centralisation/decentralisation**. Governance systems depend on where decisions are taken, by the board or by management, and at what level of management. As a general guide, decentralisation is likely to be more necessary in large and complex businesses. The extent of decentralisation of decision making should also affect the design of performance reporting systems.

4.1.1 Strategic perspective of corporate governance

Boards often struggle to accommodate their strategic objectives within effective models of corporate governance, facing as they do the challenge of meeting both regulatory demands and changes in their business environments. Drew, Kelley and Kendrick (2005) suggest that a company's ability to engage in effective corporate governance is underpinned by five elements – culture, leadership, alignment, systems and structure. Importantly, however, these elements don't operate in isolation – each element is linked to, and supports, the others. (For example, when setting remuneration, it is important to ensure that incentives and rewards are aligned with an organisation's culture.)

4.1.2 Corporate governance and culture

Good corporate governance will be hindered by cultures where there is unethical behaviour, internal rivalry, excessive risk taking and intolerance of failure. Culture cannot be separated from leadership, and so leadership should be able to make sure that it encourages a positive culture. This may involve employee education and communication programmes. Key features of a positive culture include:

- beliefs and values being set out in the mission statement
- drive for success, but tolerance of occasional failures
- employees feeling free to air problems without fear of reprisals
- not an excessive focus on short-term numerical goals
- incentives and rewards not promoting unethical or illegal behaviour

4.1.3 Corporate governance and leadership

The experience of corporate failures and scandals has eroded faith in business leaders' integrity and truthfulness. Boards can improve organisational leadership by making sure that there is a balance of competences and experience in their senior teams, to ensure that they are directed towards:

- development of high corporate governance standards
- sensitivity to important stakeholders
- longer-term strategic and ethical considerations

4.1.4 Corporate governance and alignment

Alignment can be understood as the state in which organisational resources, processes and strategies are working together. The Sarbanes-Oxley Act has required firms to improve the alignment between governance, financial reporting and risk management functions. This has meant a higher

profile for, and greater focus on the effectiveness of external and internal audit. When governance processes, financial rigour and risk management are found wanting, the results can be disastrous.

4.1.5 Corporate governance and systems

Lack of strong financial control systems can lead to disaster, as recent corporate failures have demonstrated. When Parmalat collapsed in 2003, the company was £15 billion more in debt than had been reported, and there had been numerous failings in basic financial controls and systems.

In the US, Sarbanes-Oxley requires companies to report on the effectiveness of internal controls over financial reporting. As well as financial control and reporting systems, IT systems play an important role in establishing a strong internal control environment.

Again, auditors have an important role to play in reporting on the effectiveness of such controls.

4.1.6 Corporate governance and structure

Boards need to consider how to structure themselves to support good governance and risk management. Implementing a suitable structure involves establishing systems that will promote communication across the organisation. When that structure is combined with culture, leadership and systems features as described above, a company's risk management ability is improved.

4.2 Governance and strategy implementation

4.2.1 Strategic planning decisions

The key decisions about corporate strategy, including risk appetite, should be taken at board level, with the board fully accountable to shareholders for the success or failure of their chosen strategy.

(a) Within the framework of the overall corporate strategy, decisions must be taken about supporting functional strategies. Such strategies should consider the business environment, the stage of growth and the firm's position in the industry life cycle.

(b) Functional strategies may be decided at board level, or planned by management and subject to board approval.

(c) Functional strategies should be consistent with the overall corporate strategy. For example, the board may decide on a strategy for sales growth and decide on a target for 5% sales growth over each of the next five financial years. Management may then develop a sales strategy for achieving the board's strategic targets, and submit this to the board for approval.

(d) In very large organisations, the board may set an overall corporate strategy for the group, and divisional boards may then decide on strategy for their business unit. Within each business unit, functional strategy planning may then be delegated to management.

4.2.2 Strategic planning and unexpected change

The process of strategic planning described above is a process for preparing and approving a formal business plan. The plan may cover a period of several years, during which changes will occur that were not envisaged when the plan was originally formulated.

Companies need to respond to unforeseen changes – threats or opportunities – and develop new strategies to meet the change in circumstances.

Strategic decisions for responding to change may have to be taken quickly, especially if there is a short-lived opportunity or if a major new risk has emerged that creates an immediate threat to the business. Quick decisions are often needed in particular in businesses that operate in a volatile and continually changing environment.

4.2.3 Implementing strategy

Strategies are implemented by management. The level in the management hierarchy at which responsibility for strategy implementation rests will depend on the extent of centralisation or decentralisation of decision making.

Managers who are responsible for strategy implementation should be accountable to their senior and ultimately to the CEO. The CEO is then accountable to the board. Accountability for strategy implementation should be a key feature of a risk management system and performance reporting system.

4.2.4 Monitoring strategy implementation

Within a system of responsibility management, managers should monitor the implementation of strategy by their subordinates, and the board should monitor the implementation of strategy by the executive management.

The quality of corporate governance within a company depends to a considerable extent on thequality of monitoring by the board.

5 Legal framework of governance

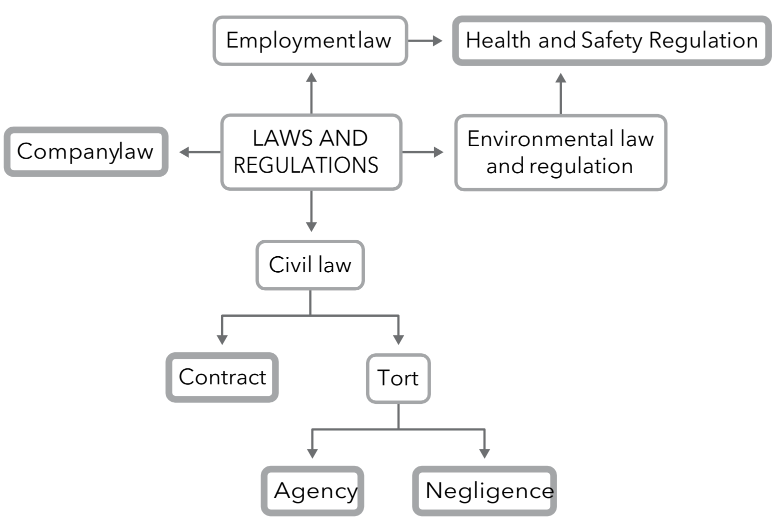
Section overview

Boards must have regard to the wide variety of laws and regulations that affect the organisation.

5.1 Legal requirements relating to the company

Companies are increasingly subject to laws and regulations with which they must comply. The most significant laws and regulations for companies differ according to the industry in which the company operates and the geographical reach of its operations. Some examples are given in Figure 6.1.

Figure 6.1: Laws and regulations affecting organisations



For the purpose of your examination, you should be aware of the nature of the legal framework within which a company operates, and the implications for corporate governance. You will not be required to know the law in detail. Much of the discussion in this section relates to UK law, but UK law is used here as a convenient example. It provides just one example of a governance regime and legal aspects of governance will vary according to country and jurisdiction.

5.1.1 Company law

Company law is the source of much regulation about the way that companies are formed and governed, including rules relating to the annual report and accounts, the requirement for external audits, annual general meetings, and so on.

The UK Companies Act also sets out seven statutory duties of directors which have relevance to corporate governance and so are listed below. These duties apply to NEDs as well as executive directors. In Bangladesh the Companies Act 1994 sets out the statutory duties of the Directors which are covered in Corporate Laws & Practice module at Professional Level.

Legal duty	
Duty to act within powers	The directors owe a duty to act in accordance with the company's constitution, and only to exercise powers for the purposes for which they were given. They have a fiduciary duty to the company to exercise their powers *bona* fide in what they honestly consider to be the interests of the company. They also should act in accordance with decisions reached at board and company meetings and in compliance with the law.
Duty to promote success of company	Directors have a duty to promote the success of the company. However, UK law does not define what should be regarded as the success of a company. This is down to a director's judgement in good faith. This is important, as it ensures that business decisions are for the directors rather than the courts. No guidance is given for what the correct course of action would be where the various duties are in conflict. The UK Companies Act 2006 provides directors with a list of issues to keep in mind. When exercising this duty, directors should consider: • the consequences of decisions in the long term • the interests of their employees • the need to develop good relationships with customers and suppliers • the impact of the company on the local community and the environment • the desirability of maintaining high standards of business conduct and a good reputation • the need to act fairly as between all members of the company The strategic report provides more detail on how directors have fulfilled this duty to promote the success of the company – this is covered in the next section.
Duty to exercise independent judgement	Directors should be independent-minded, and should not be improperly influenced by the opinions of others. Being independent-minded is not the same as being an independent NED: as explained previously, there are different interpretations of 'independence'.
Duty to exercise reasonable skill, care and diligence	A director owes a duty to their company to exercise reasonable care, skill and diligence. There are two aspects to this duty of care. (a) A director should act in a manner that would reasonably be expected of a person performing the same role as director. (b) A director should also act in accordance with the particular skills, knowledge and experience that they actually have.

Legal duty	
Duty to avoid conflict of interest and duty to disclose interests in transactions with the company	Directors should avoid a conflict of interests with their company. A conflict of interest in the context of directors' duties most often means a situation where directors face influences that tempt them to act in a self-interested way rather than in the best interests of the company. Conflicts of interest may arise when a director is involved in a business transaction with their company. The company's constitution may not allow directors to have any contracts with the company. If it allows contracts, then directors are likely to have to disclose their interest to the rest of the board. Legal provisions may reinforce or be stricter than the constitution, prohibiting certain transactions (for example, loans to directors) and only allowing some transactions if they are ratified by a shareholder vote (transactions above a certain size). Directors of listed companies may face stricter legal requirements. Directors are required to disclose to the other directors the nature and extent of any interest, direct or indirect, that they have in relation to a proposed transaction or arrangement with the company.
	When a conflict of interests arises, the director should take measures to end the conflict, or should resign from the board.
Duty not to accept benefits from third parties	Directors should not accept benefits from third parties conferred by reason of them being a director, or doing (or omitting to do) something as a director. (Taking bribes in the UK would be a criminal offence as well as a breach of company law.)

From a corporate governance perspective, it is also useful to recognise the legal provisions for the departure of directors from the board and the appointment of new directors. A director may leave office in the following ways:(a) Resignation (written notice may be required): When directors resign, either voluntarily or under pressure from colleagues, they may negotiate compensation for loss of office.

(b) **Not offering themselves for re-election when their term of office ends:** Company law should include a requirement for directors to submit themselves for re-election every so often. (In the UK, directors should submit themselves for re-election every three years, although for companies with a premium listing, the UK Corporate Governance Code requires annual re- election of all directors.)

(c) **Failing to be re-elected:** When shareholders are dissatisfied with decisions or actions by the board, one way in which they can express their dissatisfaction is to vote against the re-election of particular individuals.

Resignations and not standing for re-election are the most common methods of making changes to the board.

5.1.2 Strategic report

According to section 172 of the Companies Act 2006 it is the responsibility of company directors to promote the success of the company. Under a more recent revision (section 414) there is now a need for listed entities and those in the public interest to disclose and report how directors have achieved this legal requirement via the strategic report. This communication sits within the company's annual report and uses financial and non-financial key performance indicators (KPIs) to present a fair review of the company's business and a description of the company's principal risks and uncertainties.

Building on current reporting developments following the failure of Carillion plc, the strategic report is considered to be a logical extension of the directors' assessment of going concern. As part of their legal obligation to consider the performance, position and prospects of the company, the board of directors needs to have considered any underlying themes that may be pertinent to the business and why it might be at risk of failure: for example, whether they face structural issues such as the global pandemic or more specific risks as a result of their systems and controls.

Context example: Diageo Strategic Report 2020

The following illustration will help you understand how directors would communicate how they have fulfilled their responsibility to promote the success of the company using a series of disclosures related to the performance, position and prospects in the context of the business environment.

Diageo is a global drinks manufacturer famous for brands such as Johnnie Walker whisky, Smirnoff vodka, Bailey's Irish Cream, Captain Morgan rum, Tanqueray gin and Guinness Irish stout. The 2020 Diageo strategic report consists of 67 pages, which is roughly the first third of the company's annual report.

The strategic report starts with an overview of the company using financial data, including sales performance by region and sales mix by product type. It then presents the chairman's statement, where the section 172 disclosure is formally made, before providing a range of KPIs split into two categories:

- Financial KPIs include organic net sales growth, earnings per share before exceptional items and free cash flow (all of which have fallen since 2019).
- Non-financial KPIs include the reach and impact of the company's positive drinking programmes, plus information on water efficiency and employee engagement.

The chief executive's statement on performance, communities and outlook is then presented, followed by an overview of Diageo's business model, which states that the company aims to create a sustainable business for the very long term. Finally the report moves on to describe how Diageo promotes stakeholder engagement, including the distinction between consumers and customers, as well as how it engages with suppliers, communities, regulators and investors.

As part of its overview of the company's prospects, a section on market trends contains the following information:

- growth in spirits and an emerging preference for premium drinks
- a more affluent middle class demanding international style spirits
- changes to socialising and buying habits
- the importance of regulation and socially responsible strategies (including the industry's carbon footprint and water usage)

Strategic priorities for Diageo are discussed (growth; efficiency; responsibility; inclusivity and diversity; sustainability) alongside performance against long term targets, such as reducing water use through efficiencies (target = 50%; actual to date = 46%) and reducing total packaging (target = 15%; actual to date = 11.2%) before discussing effective risk management against risks such as regulation and indirect tax, economic change, international tax changes and product quality.

The overarching purpose of the strategic report is to inform shareholders of how well directors have fulfilled their commitment to successfully run the company. The Diageo example shows that in most cases, the company has suffered as a result of the global pandemic but is strong enough to withstand this short- term turbulence and is well-placed to thrive. Whether or not this optimism is misplaced is the concern of shareholders who will use the strategic report, alongside all the other information available to them, to evaluate their ongoing investment in the company.

You can access the full Diageo strategic report here: https://www.diageo.com/PR1346/aws/media/11304/strategic-report.pdf

5.1.3 Criminal law: fraud

Several aspects of criminal law have relevance to corporate governance. These include the laws against fraud and theft, bribery, insider dealing and money laundering.

Definition

Fraud: An intentional act by one or more individuals among management, those charged with governance (management fraud), employees (employee fraud) or third parties involving the use of deception to obtain an unjust or illegal advantage. Fraud may be perpetrated by an individual, or colluded in with people internal or external to the business.

In the UK, the Fraud Act defines three classes of fraud:

- fraud by false representation
- fraud by failing to disclose information
- fraud by abuse of position

An offence has occurred in any of these classes if a person has acted dishonestly and with the intent of making a gain for themselves or for someone else, or of inflicting a loss on someone else.

Definition

Theft: According to the UK Theft Act 1968, a person is guilty of theft if they dishonestly appropriate property belonging to another with the intention of permanently depriving the other of it.

Fraud has become a huge problem. According to Gee and Button, global losses due to fraud amounted to £3.89 trillion in the year 2019, representing 6.05% of global GDP. In the UK, fraud losses equate to £130 billion each year, and fraud represents over a third of all UK crime according to the home office. Technology has enabled more sophisticated frauds, such as push payment frauds, where individuals or businesses are deceived to make payments to the fraudster's bank account (eg where the fraudster sends emails alleging to come from suppliers requiring prepayments or deposits on work).

Context example: Real life example

In April 2020, the UK government launched the 'bounce back' loan scheme, whereby the government guaranteed loans of up to £50,000 to small businesses to assist them during the Covid- 19 pandemic. The national audit office estimates that as much as £5bn of the £47bn awarded under the scheme was awarded based on fraudulent applications, such as companies with no genuine business activity applying for the loans.

Since fraud can potentially add so much to the costs of a business, it is important that those charged with governance are proactive in ensuring that controls exist to reduce the instances of fraud. Gee and Button believe that most businesses have underinvested in systems to detect and prevent fraud because they are not aware of the true costs of it.

Internal control systems should be designed so as to include checks and procedures for the prevention or detection of fraud and theft. However, they are both a form of deceit that can make prevention and detection difficult. Internal controls to prevent or detect human errors may also help to prevent or detect fraud and theft.

5.1.4 Accountancy sector fraud charter

The UK government has set out an 'accountancy sector fraud charter' in which it sets out a vision of how the government and the accountancy profession can work together to combat fraud. The charter recognises that accountants have the following role in relation to fraud:

- Accountants in practice are ideally placed to both identify fraud in the course of their professional work
- Accountants may themselves become targets of fraudsters in their role of managing finances of organisations
- Fraudsters may impersonate accountants to add legitimacy to fraudulent schemes
- Unscrupulous accountants have a greater opportunity to commit fraud due to their access to clients' accounts and financial records

The charter is based around four actions:

(a) Law enforcement agencies and the accountancy sector will **share information** relating to major fraud risks. The government will consider whether further actions are required to address the fraud risks.

(b) The professional accountancy bodies will create a **fraud awareness toolkit** which will be accessible to all accountants, containing training, guidance to identify red flags and signposting to useful sources of fraud information

(c) **Enhancing Companies House data** – the Home Office will work with other government agencies to enhance data held at Companies House to reduce the level of fraudulent information hosted on Companies House

(d) **Increase fraud awareness** and change consumer behaviour – the accountancy sector will work with law enforcement and the government in developing and delivering a cross sector education strategy to increase awareness among the public.

5.1.5 Bribery

Some countries, including the UK, have a criminal law against giving or receiving bribes by a company and its officials or representatives. The key points of the UK Bribery Act2010 are as follows:

- Bribery is an intention to encourage or induce improper performance by any person, in breach of any duty or expectation of trust or impartiality.
- Bribery may amount to an offence for the giver ('active bribery') and the receiver ('passive bribery').
- Improper performance will be judged in accordance with what a reasonable person in the UK would expect. This applies, even if no part of the activity took place in the UK and where local custom is very different.
- Reasonable and proportionate hospitality is not prohibited.
- Facilitation payments (payments to induce officials to perform routine functions they are otherwise obligated to perform) are bribes.
- Bribing a foreign public official is an offence.

- If companies (or partnerships) fail to prevent bribes being paid on their behalf, they have committed an offence punishable by an unlimited fine. A defence for a company against accusations of bribery is to have' adequate procedures' in place for the prevention of bribery.
- If a bribery offence is committed by a company (or partnership), any director, manager or similar officer will also be guilty of the offence if they consented or were involved with the activity which took place.

Guidance published in 2011 by the UK Ministry of Justice highlighted five areas where the risk of bribery and corruption may be high:

- **Country**. Countries with high levels of corruption, lacking anti-bribery legislation and which fail to promote transparent procurement and investment policies.
- **Sectoral**. Higher risk sectors include the extractive and large-scale infrastructure sectors.
- **Transaction**. Risky transactions include charitable and political contributions, licences and permits, and transactions relating to public procurement.
- **Business opportunity**. Potentially risky projects include high-value projects, projects involving many contractors or intermediaries, and projects not apparently undertaken at market price or which lack a clear business objective.
- **Business partnership risk**. Risky situations could include the use of intermediaries in transactions with foreign public officials, involvement with consortia or joint venture partners and relationships with politically exposed persons.

5.1.6 Insider dealing

Insider dealing is a criminal offence. Essentially, insider dealing involves using confidential (undisclosed) information about a company to deal in a company's shares (or to encourage someone else to deal in a company's shares) for financial benefit.

For directors, an obvious example of insider dealing would be using the advance knowledge they have of the company's results to make gains before the information is released to the market. Rules in many countries therefore include prohibition of directors dealing in shares during a **close period**, defined as a specific period (60 days, for example) before the publication of annual or period results.

5.1.7 Money laundering

Money laundering is a form of fraud. It is essentially a process where the perpetrator attempts to legitimise the proceeds of any crime (dirty money made good). Proceeds of crime can include activities such as drug trafficking, terrorism, shoplifting, theft, tax evasion and other financial criminal activity. As a form of fraud, the emphasis is on concealing the illegal source of the money, which makes it difficult to detect, especially given that the transactions are rarely linked to one country.

Relevant legislation in the UK includes:

- **The Terrorism Act 2000**.It is a criminal offence in the UK to finance or facilitate the financing of terrorism.
- **The Proceeds of Crime Act 2002**.Three money laundering offences under this Act are:

Section 327 – An offence is committed if a person conceals, disguises, converts, transfers or removes from the jurisdiction property which is, or represents, the proceeds of crime which the person knows or suspects represents the proceeds of crime.

Section 328 – An offence is committed when a person enters into or becomes concerned in an arrangement which he knows or suspects will facilitate another person to acquire, retain, use or control criminal property and the person knows or suspects that the property is criminal property.

Section 329 – An offence is committed when a person acquires, uses or has possession of property which he knows or suspects represents the proceeds of crime.

- **Money Laundering Regulations** –these were updated in 2017 to provide that relevant persons should adopt a more risk-based approach towards anti-money laundering, in particular in how they conduct due diligence.

The Economic Crime Plan 2019 to 2022 sets out 7 priority areas that were agreed in January 2019 by the Economic Crime Strategic Board, the ministerial level public-private board charged with setting the UK's strategic priorities for combatting economic crime:

(a) develop a better understanding of the threat posed by economic crime and our performance in combatting economic crime

(b) pursue better sharing and usage of information to combat economic crime within and between the public and private sectors across all participants

(c) ensure the powers, procedures and tools of law enforcement, the justice system and the private sector are as effective as possible

(d) strengthen the capabilities of law enforcement, the justice system and private sector to detect, deter and disrupt economic crime

(e) build greater resilience to economic crime by enhancing the management of economic crime risk in the private sector and the risk-based approach to supervision

(f) improve our systems for transparency of ownership of legal entities and legal arrangements

(g) deliver an ambitious international strategy to enhance security, prosperity and the UK's global influence

The plan demonstrates the UK's commitment to making the fight against economic crime as effective as possible by means of greater scope, transparency and action.

Some companies are at greater risk than others of breaching the laws against money laundering, such as banks. Affected companies must assess the risk of money laundering in their business and take necessary action by identifying the risks and taking measures, for example by refusing to enter into business transactions with customers who are suspected of money laundering.

These risks are exacerbated by the fact that one of the central money laundering techniques is transferring funds from a jurisdiction with high transparency (such as the UK, or the US which has appointed the Office of Terrorism and Financial Intelligence to counter these threats) to a location where financial scrutiny is more opaque. Although examples of countries that participate in money laundering (usually by a passive omission of regulatory action rather than any form of active encouragement) are gradually disappearing, there is still a need for international efforts to counter this global problem. The G-7 set up the Financial Action Task Force (FATF) in 1989 which continues to set the tone for anti-money laundering policy worldwide.

In 2022, the government issued a statutory instrument, **Amendments to the Money Laundering, Terrorist Financing and Transfer of Funds (information on the payer) Requlations 2017.** The most significant requirement of this act for the accountancy profession are:

- An extension of the requirement to disclose any material discrepancies between the information held by Companies House, and the information that the accountant knows to be true in relation to clients. Accountants already had an obligation to report such discrepancies for new clients, but the new instrument requires ongoing customer due diligence.

- The government is introducing a new public register of overseas entities owning property in the UK. The purpose of this is to give greater transparency to ownership of properties, as recently there has been a trend for money launderers to buy UK property through offshore companies as a means of hiding the true owners. Accountants will also have a responsibility to report any discrepancies between information on this register and information that they know to be correct.

5.1.8 Civil law

Areas of commercial law which may impact on businesses include:

- carriage by land and sea
- marine, fire, life and accident assurance
- bills of exchange
- manufacture and sale of consumer goods

Businesses may also be affected by various aspects of property law, including:

- possession and rights over land
- transfer of property
- landlord and tenant law
- manufacture and sale of consumer goods

5.1.9 Contract law

Contract law will have a significant impact on a business. Contracts may be made with suppliers, landlords, customers and so on.

Context example: Consumer Rights Act 2015

The UK Consumer Rights Act 2015 consolidates existing consumer protection legislation. The Act requires goods to be of satisfactory quality, fit for a particular purpose and as described. These same provisions now also apply to digital content. Any statement that a company makes when a consumer is deciding to enter into a contract, or even after entering into the contract, is now a binding contractual term. If the statements are misleading, a claim may now be brought for breach of contract rather than just misrepresentation.

The following diagram is a summary of the key points:

A valid contract is a legally binding agreement, formed by the mutual consent of two parties.

The **three essential elements** of a contract are **offer and acceptance**, **consideration** and **intention to enter into legal relations.**

There are a number of factors which may affect the **validity** of a contract. For a contract to be binding it must also satisfy various tests relating to **certainty, legality, form** and the **genuineness of consent** of the parties.

A contract contains **express** terms and additional terms may be **implied** by custom, statute or the courts
- Business efficacy
- Necessarily incidental

Generally speaking, it can be only be enforced by the parties to it.
Exceptions
- Agency
- Contracts (Rights of Third Parties) Act 1999

It is almost invariably the case that the two parties to a contract bring with them differing levels of bargaining power. A contract may be made between a large retail company and an individual, for example. In such cases, the agreement is likely to be in the form of a standard form contract, prepared by the dominant party and which the other party has no choice but to take or leave.

Alternatively, the parties to the contract will negotiate the terms between them.

Risks

Having entered into a contract a business faces the following risks:

(a) The contract is unenforceable.

A contract will be unenforceable where it is not in the correct form. Note that, increasingly, contracts are made electronically and an electronic signature can be used as evidence of the validity of a contract in the same way as a written signature (s8 Electronic Communications Act 2000).

(b) The contract is void or voidable.

A contract may be void or voidable in the following situations:

- lack of capacity
- absence of free will
- illegality
- mistake
- misrepresentation

The consequences of a contract being rendered void or voidable are as follows:

Void	A **void contract** is not a contract at all. The parties are not bound by it and if they transfer property under it they can generally recover their goods even from a third party.
Voidable	A **voidable contract** is a contract which one party may set aside. Property transferred before avoidance is usually irrecoverable from a third party.

(c) The contract is not discharged.

A contract is normally discharged by performance. Where a party does not perform its contractual obligation sufficiently, it is said to be in breach of contract, unless the contract has been discharged by frustration or it has some other lawful excuse. A lawful excuse may apply in the following circumstances:

- where they have tendered performance but this has been rejected
- where the other party has made it impossible for them to perform
- where the parties have by agreement permitted non-performance

The majority of contractual disputes will not reach the courts and may be resolved by negotiation, arbitration or some other means, such as mediation, adjudication and expert determination. However, where this is not possible the court may award one of the following remedies:

- damages (designed to compensate the claimant by putting him in the position he would have been in, if the contract had been performed)
- specific performance (where damages are not an adequate remedy)

– injunction (ie, the defendant is directed to take positive steps to undo something he has already done in breach of contract)

Damages are the most common form of remedy to be awarded by the courts. A company in breach of contract may need to recognise a provision for damages or disclose a contingent liability depending on the specific nature of the situation and the assessment of the likely outcome of the court proceedings.

5.1.10 Agency

Agency is a very important feature of modern commercial life and describes the relationship that exists where one party, the agent, acts on behalf of another, the principal. In practice, there are many examples of agency relationships to which you are probably accustomed, such as estate agents and travel agents. However, you should appreciate, in particular, how a director may be held to be an agent of the company and bind the company by his acts and also how a partner is an agent of the partnership and may bind the firm by his acts.

Agency by consent

An agency can be expressly created either orally or in writing. There is only one exception to this, which is that if the agent is to execute a deed on the principal's behalf (for example a conveyance of land or a lease exceeding three years) then the agency must be created by deed. Essentially this means that the agent is given a power of attorney.

Agency by estoppel

Agency by estoppel arises by operation of law and is no less effective than an agency expressly created. It arises in the following situation:

- when the words or **conduct of the principal** give to a **third party** the **impression** that the person who purports to contract with the third party **is the agent** of the principal; and
- the **third party**, as a result, **acts upon this**

The principal is 'estopped', or prevented, from denying the existence of the agency. For example, where a business presents an employee to customers and other entities it is in business with as a director they will be treated in law as such (shadow director) even if they are not officially registered at Companies House as a director of the company.

The law implies the following duties into any contract of agency:

Duties	Explanation
Accountability	An agent must provide full information to their principal of their agency transactions and account to them for all monies arising from them. If they accept from the other party any commission or reward as an inducement to make the contract with them, it is considered to be a bribe and the contract is fraudulent. The principal who discovers that their agent has accepted a bribe may dismiss the agent and recover the amount of the bribe from them.
No conflict of interest	The agent owes to their principal a duty not to put themselves in a situation where their own interests conflict with those of the principal.

Performance	The agent who agrees to act as agent for reward has a contractual obligation to perform their agreed task. (An unpaid agent is not bound to carry out their agreed duties unless there is other consideration.) Any agent may refuse to perform an illegal act.
Obedience	The agent must act strictly in accordance with their principal's instructions insofar as these are lawful and reasonable. Even if they believe disobedience to be in their principal's best interests, they may not disobey instructions (unless they are asked to commit an illegal or unreasonable act).
Skill	An agent undertakes to maintain the standard of skill and care to be expected of a person in their profession.
Personal performance	The agent is usually selected because of their personal qualities and owes a duty to perform their task themselves and not to delegate it to another. (However, they may delegate in certain circumstances, for example a solicitor acting for a client would be obliged to instruct a stockbroker to buy or sell listed securities on the stock exchange.)
Confidence	The agent must keep in confidence what they know of their principal's affairs even after the agency relationship has ceased.

Conversely, an agent has the following **rights** (or duties owed by the principal):

Rights of the agent	Explanation
Indemnity	The agent is entitled to be repaid their expenses and to be indemnified by their principal against losses and liabilities, provided their acts are done properly within the limits of their authority. They may recover expenses properly paid even if they were not legally bound to pay; for example, a solicitor who pays counsel's fees (which the counsel cannot recover at law) may reclaim this expense from their client.
Remuneration	The agent is also entitled to be paid any agreed remuneration for their services by their principal. The entitlement to remuneration may have been expressly agreed or may be inferred from the circumstances, for example by reference to trade or professional practice. If it is agreed that the agent is to be remunerated but the amount has not been fixed, the agent is entitled to a reasonable amount.
Lien	The agent has the right to exercise a lien over property owned by the principal, ie, a right to retain and hold goods pending payment of sums owed to them.

5.1.11 Negligence

Negligence is the most important modern tort. To succeed in an action for negligence, the burden of proof is on the claimant to prove, on **a balance of probabilities**, that:

- the defendant owed **a duty of care** to the claimant to avoid causing injury, damage or loss
- there was **a breach of that duty** by the defendant
- **in consequence** the claimant suffered **injury, damage or loss**

Duty of care

It is not possible to give a clear statement of the law as to when a duty of care exists for the purposes of negligence, since the law has evolved over many years as it has had to be applied to extremely varied situations and many factors have influenced the courts' decisions. Whether or not a duty of care exists will be assessed on the basis of some or all of the following four tests. These were formulated by the House of Lords in *The Nicholas H* (Marc Rich & Co v Bishops Rock Marine) *1995* case.

Test		Meaning
(a)	**Reasonably foreseeable**	Was the damage reasonably foreseeable by the defendant as damage to the claimant at the time of the negligent act or omission?
(b)	**Proximity**	Is there sufficient proximity, or neighbourhood, between the parties?
(c)	**Fair, just and reasonable**	Is it fair, just and reasonable that the law should impose a duty on the defendant on the facts of the case?
(d)	**Public policy**	Is there a matter of public policy that requires that no duty of care should exist?

Breach of duty

Whether or not there has been a breach of duty is a question of fact. In certain circumstances where the reason for the damage is not known, but it can fairly be said that it would not have occurred without the defendant's lack of care, the claimant can argue *res ipsa loquitur* ('the facts speak for themselves') and the court will infer that the defendant was in breach of the duty of care.

The standard of care needed to satisfy the duty of care is a question of law. Broadly speaking, it is the standard of 'a reasonable man, guided upon those considerations which ordinarily regulate the conduct of human affairs' (Blyth v Birmingham Waterworks Co 1856).

The following principles have been established by case law:

Principle	Explanation
Particular skill	If the defendant professes a **particular skill**, the standard is that of a reasonable person with that skill, ie, a reasonable accountant or reasonable electrician.
Lack of skill	**Peculiarities or disabilities** of the defendant are not relevant, so the standard for a learner driver is that of a reasonable driver and for a trainee accountant, that of a reasonable accountant.
No hindsight	The test is one of **knowledge and general practice existing at the time**, not hindsight or subsequent change of practice.
Body of opinion	In broad terms, a claim against a professional person will fail if they can point to a **body of professional opinion that supports the approach** taken and which the court considers to be reasonable.
Advantage and risk	In deciding what is reasonable care, the balance must be struck between **advantage and risk**. (For example, a driver of a fire engine may exceed the normal speed on their way to the fire but not on the way back.)
Emergency	If a defendant acts negligently in an **emergency situation**, this will be taken into account – the test is that of a reasonable man in the defendant's situation.

Principle	Explanation
Vulnerability	If A owes a duty of care to B and A knows that B is unusually vulnerable, a higher standard of care is expected.

Loss caused by breach

A person will only be compensated if he has suffered actual loss, injury, damage or harm **as a consequence** of another's actions. As a general rule, loss is represented by personal injury or damage to property, or financial loss directly connected to such injury (for example, loss of earnings) or property damage. Such **consequential** economic loss that is related in this way is more readily recoverable than **pure** economic loss.

5.1.12 Employment and social security law, and health and safety regulations

An entity which employs individuals has a number of responsibilities under the terms of the employment contract in common law and in statute. One of the key distinctions which a business needs to be able to make therefore is between an employee and a contractor. An employee is someone who is employed under a **'contract of service'**, ie, a contract of employment. An independent contractor is someone who works under a **contract for services** and is also described as 'self-employed'.

There are three essential elements, or conditions, that **must** be present in order for the contract of service (and thus the employer/employee relationship) to exist, namely:

Condition	Explanation
Personal service	The employee must have agreed to provide their own work and skill in the performance of a service for their employer. However, the fact that an employee is able to delegate that performance in limited circumstances (for example when they are sick or only with permission) will not mean that this condition is not met.
Control	There must be some element of control exercisable by the employer over the employee.
Mutuality of obligations	There must be an obligation on the employer to provide work and an obligation on the employee to do that work. Thus a 'casual worker' who works as and when required, even if in preference to others, cannot be an employee because there is no 'mutuality of obligations'.

If these factors are not present there can be no contract of service. The fact that they are present, however, does not mean that there **will** be a contract of service. The level of service and degree of control will be taken into account along with a number of other factors.

There are several other **practical reasons** why the distinction between a contract of service (employed) and a contract for services (self-employed) is important.

Significance of the distinction		
	Employee	**Self-employed**
Wrongful dismissal	Can claim wrongful dismissal.	Cannot claim wrongful dismissal.

Employment protection	There is legislation that confers protection and benefits upon employees under a contract of service, including: • minimum periods of notice • entitlement to statutory redundancy payment • remedies for unfair dismissal • health and safety protection (Sometimes the protection is subject to the employee having completed a certain amount of continuous service.)	Note that increasingly, employment protection is given to 'workers' rather than 'employees'. 'Workers' is more widely defined and will often include those normally regarded as independent contractors as well as employees. It is important to note which term the legislation applies to; for example, statutory protection against unfair dismissal applies to 'employees', but working time protection applies to 'workers'. Note too that statutory health and safety obligations on employers often relate to both employees and independent contractors.
Insolvency	In liquidation, an employee has preferential rights as a creditor for payment of outstanding salary and redundancy payments, up to certain limits.	Self-employed contractors only have the normal, non-preferential rights of any creditor, in the event of insolvency.
Implied terms	There are rights and duties implied in an employment contract by common law and statute, for example a mutual duty of trust and confidence.	These implied rights and duties do not generally apply to a contract for services.
Tortious acts	Employer is generally vicariously liable for tortious acts of employees, committed in the course of employment.	Liability of person hiring an independent contractor for contractor's acts is severely limited unless there is strict liability.
Taxation	Deductions for income tax must be made by an employer under PAYE (Schedule E) from salary paid to employee.	The self-employed are taxed under Schedule D and are directly responsible to HMRC for tax due.
VAT		An independent contractor may have to register for, and charge, VAT.
Social security	Employers must pay secondary Class 1 contributions on behalf of employees. Employees make primary Class 1 contributions. There are also differences in statutory sick pay and levies for industrial training purposes.	Independent contractors pay Class 2 and 4 contributions.

With the current trend in increasingly flexible working practices in some cases this distinction is becoming more difficult to make. There is an increased risk that an entity has responsibilities for individuals under employment law which it is not aware of. This could increase the risk of penalties.

Employer's implied duties

The employer owes the following duties at common law:

To pay reasonable remuneration	This duty is subject to any express provision, for example to pay a rate fixed by the parties, or to pay nothing during a lay-off.

To indemnify employees	To **indemnify the employee** against expenses and losses incurred in the course of employment.
Health and safety	This is normally expressed as a duty to protect the employee against reasonably foreseeable risks to their **health, safety** and welfare at work. Health and safety obligations are also imposed by statute. This common law duty is threefold and incorporates the obligations to provide: • safe plant and appliances • a safe system of work • reasonably competent fellow-employees
To provide work	Generally speaking, an employer will not be liable for failing to provide work as long as they continue to pay wages (so liability is more likely to arise where someone is paid on a commission basis).
To provide accurate reference (where one is provided)	An employer does not have a duty to provide a reference (but if they do provide one, they must exercise reasonable care and skill to ensure that the information contained in it is accurate and gives a fair impression of the employee). In particular, an employer cannot divulge information that is not known to the employee (for example customers' complaints against the employee).
Not to disclose confidential information	The employer must not divulge confidential information about the employee to a third party without the employee's consent.
To maintain mutual trust and confidence	The employer must treat the employee with due respect and consideration. They must not, for example, conduct their business in a disreputable fashion, thereby damaging the employee's reputation and future employment prospects.

Legislation also imposes a number of implied duties on employers, often implementing European Directives on employment law issues. Many of these duties are concerned with 'family-friendly' employment and the 'work-life balance', for example provisions regarding maternity and paternity rights, flexible working arrangements and time off work. The principal duties implied by statute are as follows:

Subject	Duty
Pay	Under legislation protecting equal pay, contractual employment terms such as sick pay, holiday pay and working hours should be as favourable as those given to an employee of the opposite sex who is performing equal work or work of equal value, unless a 'genuine material factor' exists that justifies the discrepancy (for example, employees in London receiving a higher hourly rate than employees in regional locations where living costs are lower).
Health and safety	The Health and Safety at Work Act 1974 imposes general duties on employers, including a duty to ensure the continuing good health, safety

Subject	Duty
	and welfare of his employees, as far as is practicable. This general duty includes the following obligations: • provide and maintain plant and systems of work that are safe and without risk • make arrangements to ensure safe use, handling, storage and transport of articles/substances • provide adequate information, instruction, training and supervision • maintain safe places of work and ensure that there is adequate access in and out • provide a safe and healthy working environment Certain additional duties are imposed on employers in particular categories, for example designers and manufacturers who must ensure that the articles designed or manufactured are safe and that there is adequate testing and examination. There are also extensive health and safety regulations which may be generally applicable or specifically applicable to particular hazards or risks. Contravention of the Act is an offence punishable by an unlimited fine and/or up to two years' imprisonment. If an offence is committed by a company, any director or other officer who consented to or was responsible for commission of the offence will also be guilty and liable to the penalties mentioned.
Discrimination	Not to discriminate on grounds of race, sex, disability, religion or belief, sexual orientation or age.

Employee's implied duties

Common law implies a number of duties on the part of the employee into any contract of employment:

Duty of faithful service (fidelity)	The employee has a **fundamental duty of faithful service** or fidelity to their employer. Thus an employee who works for an employer's competitor in their spare time, or who frustrates the commercial objectives of their employer, is in breach of this duty.
To obey lawful and reasonable orders	The employee must show **obedience** to the employer's instructions unless they require them to: • do an unlawful act; • expose themselves to personal danger (not inherent in their work); or • do something outside their contract.
Not to misuse confidential information	This duty will not necessarily cease when the employment ceases. (Note that when someone invents or writes something as part of their employment, the right to the patent or copyright will normally belong to their employer.)
To exercise reasonable care and skill	The employee must demonstrate reasonable **competence, care and skill** in the performance of their work, bearing in mind the degree of skill and experience that the employee professes to have.
Personal service	The contract of employment is a personal one and so the employee may not delegate their duties without the employer's express or implied consent.

Trust and confidence	This is a mutual obligation imposed on both parties and is based on respect and consideration for each other. An employee should not, for example, make unjustifiable complaints or false accusations about their employer.

Further details on employment law are covered in your Law Workbook.

5.1.13 Environmental law and regulation

Environmental law and regulation covers a number of different areas, including:

- air
- chemicals
- conservation
- energy
- noise and nuisance
- pesticides and biocides
- radioactive substances
- waste
- water

Within each category, there is a range of legislation. For example, legislation on air quality includes regulations regarding aerosol dispensers, clean air acts, climate change acts and crop residues (burning) legislation. For any business, it is therefore critical that it identifies which regulations are relevant to its business and ensures that it complies with the provisions of these. The company may employ the services of a consultant in order to help it understand and apply the legislation with a view to avoiding any breaches and the potential penalties that may arise as a consequence.

Breaches of environmental regulations can have significant consequences, both directly (as a result of the fines) and indirectly (as a result of the bad publicity).

5.1.14 Data protection

As we mentioned in Strategic choice – in the context of 'big data' – companies are collecting and storing increasingly large amounts of data. However, while this data can help improve the quality of their decision making, it is also important that organisations remember their legal responsibilities in relation to personal data (for example, about customers, account holders and staff).

The EU General Data Protection Regulations (GDPR) – or the Data Protection Act (2018) in the UK – controls how personal data is used by organisations, and requires them to ensure that data is kept secure, accurate and up to date. (Personal data is any data or information that can be used to identify a person, including their name, address, date of birth, or email address.)

The Act notes that everyone responsible for using personal data has to follow strict data protection principles, and must ensure the information is:

- used fairly, lawfully and transparently
- used for specified, explicit purposes
- used in a way that is adequate, relevant and limited to only what is necessary
- accurate and, where necessary, kept up to date
- kept for no longer than is necessary

- handled in a way that ensures appropriate security, including protection against unlawful or unauthorised processing, access, loss, destruction or damage

  The last point, about security, could be particularly significant in the context of cybersecurity, which we will consider in more detail in Information strategy.

5.1.15 Legal vs ethical obligations

Law and ethics are not the same thing – a business practice such as tax avoidance might be regarded as unethical, but is not necessarily illegal. Integrity, honesty and openness in business dealings are not specifically demanded by legal regulation, and explicit reference to ethical principles are not generally included in corporate governance codes.

Questions of ethics are however inherent in all aspects of corporate governance, and most companies do recognise that for their businesses to be successful, they need to conduct their activities in an ethical (as well as a legal) manner. Ethics is considered in more detail in Ethics.

5.2 Compliance with laws and regulations

Directors and management should ensure that their company complies with relevant laws and regulations.

Context example: Tax avoidance

It was reported in December 2017 that European Commission investigators were looking at royalties paid by Ikea's Dutch entity, Inter Ikea, to its subsidiary in low-tax Luxembourg between 2006 and 2010. In April 2017, the Commission ordered Amazon to pay €250 million (£221 million) in back taxes to the Luxembourg government after ruling that a 2003 tax deal amounted to illegal state aid.

The EU's competition chief also asked Apple to provide details of its latest tax structure as regulators tried to recover €13 billion (£11.5 billion) in back taxes to Ireland. This came after a ruling that Ireland had granted Apple illegal state aid in the form of generous tax benefits, which allowed the company to pay almost no tax on a significant proportion of its global sales.

Leaked documents showed that Apple had moved a subsidiary to Jersey in order to continue avoiding billions in taxes, after an EU crackdown in 2013.

Both Apple and Amazon denied any wrongdoing, and a spokesperson for Inter Ikea Systems said the company was committed to paying taxes in accordance with laws and regulations wherever it operates.

Source: https://www.independent.co.uk/news/business/news/ikea-tax-investigation-eu-commission- inter-margrethe-vestager-big-small-a8116321.html [Accessed 7 August 2018]

The consequences of failing to comply with laws and regulations will depend on the nature of the offence, and the jurisdiction in which the offence occurs. Fines for breaching the law or contractual arrangements could be very high, and there may also be a risk that offences could lead to a significant loss of business.

Large companies may establish a compliance department whose responsibility is to monitor compliance with relevant laws and regulations. The name given to a compliance department may vary. For example, compliance with health and safety regulations may be assigned to a health and safety department. When a company finds it necessary to establish one or more compliance departments, the costs of compliance can be high.

Compliance can be particularly complex for international companies that operate in different countries with differing jurisdictions.

Context example: Compliance framework

The South African King Report sets out the principles underlying a company's governance framework that should ensure compliance with relevant laws and regulation.

(a) The board should ensure that the company complies with applicable laws and considers adherence to non-binding rules, codes and **standards**

Compliance is an ethical imperative, which should be understood not only in terms of the obligations that laws create, but the rights and protection that they afford. The board should consider adherence to non-binding rules, codes and standards if it would constitute good governance practice. Compliance should be systematically managed and should be a regular item on a board's agenda.

(b) The board and each individual director should have a working understanding of the effect of the applicable laws, rules, codes and **standards**

Directors have a duty to familiarise themselves with the general content of laws and regulations, to be able to adequately discharge their fiduciary duties in the best interests of the company and their duty of care, skill and diligence. The business should have processes to ensure that the board is continually informed of relevant laws, rules, codes and standards.

(c) Compliance risk should form an integral part of the company's risk management **process**

Risks of non-compliance should be managed through the risk management processes. However, this does not imply that compliance is optional, depending on whether the risk assessment warrants it. A compliance function can form part of a broader risk management function.

(d) The board should delegate to management the implementation of an effective compliance framework and **processes**

Management should develop and implement the compliance policy, and the board should approve it and monitor compliance. The compliance policy should be aligned with other business efforts and objectives. Compliance should be part of the code of conduct to entrench a culture of compliance. A compliance culture should also be encouraged through leadership, establishing appropriate structures, education and training, communication and measurement of key performance indicators relevant to compliance.

The following aspects of control systems are particularly important.

5.2.1 Establishing a culture of compliance

Board commitment to compliance with the law is an important overall control. Directors may seek to establish a commitment against breaches of specific laws by a formal statement, setting out a zero tolerance policy and spelling out the consequences for employees or managers who transgress.

As with other areas, **communication** of the organisation's procedures and policies, and **training** in their application, will be very important in helping to establish the culture. Training should include general training on the threat of bribery on induction, and also specific training for those involved in higher risk activities such as purchasing and contracting.

However, while establishing the right culture is an important part of taking effective action to combat corruption, a culture that is ambiguous or not enforced may adversely affect the success of other measures. This may occur if managers and staff feel that they are getting mixed messages. They may believe that they are expected to do what it takes to earn sufficient returns in environments where ethical temptations exist, or that ethically dubious conduct will be ignored or implicitly accepted.

5.2.2 Code of conduct

As well as being central to communication with employees, a publicly communicated code reassures those doing business with the organisation and can act as a deterrent to misconduct. For example, a code may include provisions about dealing truthfully with suppliers and refraining from seeking or participating in questionable behaviour to secure competitive advantage. However, there may be the problem that staff do not feel the code is relevant to them.

5.2.3 Risk assessment

Identification of circumstances where non-compliance with laws may be a problem must be built into business risk assessments. Sensitive areas could include hazardous activities for health and safety laws, disputes with staff for employment law, or the activities of intermediaries or agents, or staff within the organisation responsible for hospitality or promotional expenditure for anti-bribery legislation. Risks may change over time (for example, as the business enters new markets) and so may need to be reassessed. A poor internal control environment may also be a factor that contributes significantly to increased risk.

5.2.4 Operational compliance

A strong tone at the top and the ethical code may be undermined by a lack of detailed guidance on the implementation of procedures to ensure compliance with laws.

However detailed the procedures, they will not be able to give absolute assurance that corrupt activities will not take place. Staff may not understand why operational controls are required, how they should operate and who should be operating them. They may misinterpret the requirements, or may encounter dubious situations not covered by guidance. They may assume that conduct not forbidden by the guidance is legitimate.

There is also the issue that detailed guidance is meant to ensure compliance with the law. However, the law may not be entirely clear.

5.2.5 Whistleblowing

A business's guidance should make it clear that managers and staff should seek guidance about, and disclose, any activities that are questionable. Staff should also have the opportunity to make suggestions for improvement in prevention and compliance procedures.

5.2.6 Monitoring

As part of their regular monitoring of risk management, the board should receive reports on compliance with significant legislation. The board must also consider whether systems need to be improved as the risk environment changes. Events that may result in changes to systems include changes of government, changes in legislation or changes in the activities of the business.

The board's monitoring of compliance may be assisted by compliance audits. These may be carried out by internal auditors, or external specialists for areas in which there is a lack of in-house expertise, or external assurance is required or felt to be desirable.

6. Corporate Governance Code in Bangladesh

In Bangladesh, companies listed in Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) should be guided by the Corporate Governance Code issued by Bangladesh Securities and Exchange Commission (BSEC). The Code emphasises the value of good corporate governance as a contributing factor to long-term sustainable success, and identifies a set of key Principles which help to define good governance.

The Insurance Development and Regulatory Authority (IDRA) has also released comprehensive Corporate Governance Guidelines for insurance companies operating in Bangladesh. These guidelines will help strengthen transparency, accountability, and ethical practices within the sector.

Summary

Tick off

Globalisation, the treatment of investors and major corporate scandals have been driving forces behind corporate governance development.	☐
Most governance reports are based around the principles of integrity, accountability, independence and good management. Agency is also very important as often the directors/managers are acting as agents for the owners.	☐
Governance reports have emphasised the roles of institutional investors, but directors and managers also need to be aware of the interests of all significant stakeholders.	☐
The board should be responsible for taking major policy and strategic decisions, monitoring performance and overseeing risk management. Directors should have a mix of skills and their performance should be assessed regularly.	☐
Division of responsibilities at the head of an organisation is best achieved by separating the roles of chairman and chief executive. Independent non-executive directors have a key role to play in governance, including serving on board committees.	☐
Business structure will have a major impact on how effectively governance is implemented, particularly the form planning and control systems take and the amount of responsibility given to operational management.	☐
Boards must introduce a framework including an appropriate culture, code of conduct, compliance procedures and communication channels to ensure their companies comply with the many laws and regulations that they face.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the OECD principles of corporate governance? (Topic 1)
2.	How do different stakeholders contribute to corporate governance? (Topic 2)
3.	What can limit the effectiveness of a board's decision making? (Topic 3)
4.	What is the role of non-executive directors? (Topic 3)
5.	For effective governance what factors should be considered in relation to organisational structure? (Topic 4)
6.	Corporate Governance Code and Guidelines in Bangladesh (Topic 5)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
2 GFE	This question looks at corporate governance in the not-for-profit sector rather than for a listed, profit seeking entity. SBM&L exam questions could be based on profit seeking or not-for-profit organisations so ensure you are aware of similarities and differences in corporate governance requirements for different entity types.
3 HEC	In self-test question 3 you are asked to consider internal controls and the role and responsibilities of internal audit. This topic is covered in Section 3 of the chapter and tested via IQ3 so ensure you review these areas before looking at the question. The question requires some basic technical knowledge but most of your answer will come from using the scenario to generate ideas. Many SBM&L questions rely less on technical knowledge and more on scenario application.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Technical reference

Diageo (2020) *Strategic Report* [Online]. Available at: https://www.diageo.com/PR1346/aws/media/11304/strategic-report.pdf [Accessed 9 June 2021]

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"Corporate Governance Guidelines ." *https://www.idra.org.bd/sites/default/files/files/idra.portal.gov.bd/miscellaneous_info/12bfc276_275e_4f19_ac86_4efef07a809c/2023-09-19-06-50-e067c682b2839d9620963ed1e66b14b5.pdf*. [Accessed 23 Mar. 2024.]

1 UK & Bangladesh Corporate Governance Code

Identifies the Principles, and supporting Provisions, that a company should apply to help ensure the governance of the company contributes to its long term sustainable success and helps it achieve its wider objectives. The Code addresses following main areas:

- Board Leadership and Company Purpose
- Division of Responsibilities
- Composition, Succession and Evaluation of the Board
- Audit, Risk and Internal Control
- Remuneration

Self-test questions

Answer the following questions.

1 Non-executive directors

Discuss the extent to which non-executive directors can contribute to the effectiveness of corporate governance for an unlisted company that may seek a listing in the future.

2 GFE

GFE is a registered charity with 150 employees and 350 volunteers, providing in-home care for elderly persons who are unable to fully take care of themselves. The company structure has no shareholders in a practical sense although a small number of issued shares are held by the sponsors who established the charity many years previously. GFE is governed by a seven-member board of directors. The chief executive officer (CEO) chairs the board, which comprises the chief financial officer (CFO) and five independent, unpaid non-executive directors who were appointed by the CEO, based on past business relationships. You are one of the independent members of GFE's board.

The CEO/Chair sets the board agendas, distributes board papers in advance of meetings and briefs board members in relation to each agenda item. At each of its quarterly meetings, the board reviews the financial reports of the charity in some detail and the CFO answers questions. Other issues that regularly appear as agenda items include new government funding initiatives for the client group, and the results of proposals that have been submitted to funding agencies, of which about 35% are successful. There is rarely any discussion of operational matters relating to the charity, as the CEO believes these are outside the directors' experience and the executive management team is more than capable of managing the delivery of the in-home care services.

The board has no separate audit committee but relies on the annual management letter from the external auditors to provide assurance that financial controls are operating effectively. The external auditors were appointed by the CEO many years previously.

GFE's board believes that the company's corporate governance could be improved by following the principles applicable to listed companies.

Requirement

Recommend how GFE's board should be restructured to comply with the principles of good corporate governance.

3 Highland Energy Company

Owned and operated by Highland Energy Company (HEC), the 1,000 km Highland oil pipeline has become a vital source of economic growth in its home country of Zedland. The oil carried by the pipeline is loaded onto ships at Zedtown port and exported to the neighbouring country of Exland.

Zedland is a developing country with few labour regulations and very little legislation on employee pay and conditions. This has enabled HEC to use a large proportion of poorly-paid immigrant labour to build and maintain the pipeline as it crosses over rough terrain.

Because of the multinational workforce, there are often language barriers and difficulties in communicating work practices and because of the remoteness of much of the work on the pipeline, conditions are harsh. Motivation and morale are often low and industrial relations are poor. The company has found it difficult to recruit the skilled technical people it needs.

During a recent winter storm, a connection in the pipeline was fractured, resulting in an oil leak. Seeking to protect both the pipeline and the environment, the Zedland government's industry minister wrote to the recently appointed CEO, asking him to respond to rumours about poor internal controls in HEC and to introduce measures to reduce the chances of a repetition.

In response to the industry minister's letter, the HEC board reviewed internal controls and two resolutions were agreed. The first was that the company should establish a formal internal audit function and second, that a full review of any barriers to sound internal controls in the company should be carried out. It was decided that in responding to the minister, the CEO should convey both the board's resolve on internal audit and also an honest review of HEC's problems in achieving sound internal controls.

Requirements

Prepare brief notes for a letter to the industry minister on:

3.1 The reasons why the implementation of sound internal controls has been difficult at HEC.

3.2 The ways in which an internal audit function might provide assurance in order to make an effective contribution to HEC.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Adrian

Arguments for appointment Knowledge of QP

Adrian has **exceptionally good long-term knowledge** of QP through his involvement with the investment over 15 years. Adrian's knowledge should mean that he can provide expert scrutiny of the performance of executive management.

Knowledge of industry

As a result of Adrian's long experience as investment analyst, he should have **wide knowledge of the industry and economy** as well as of QP, although he has not worked in the manufacturing sector. This should mean that he is able to make an informed contribution to board discussions about strategy, and have the weight of knowledge to be able to challenge effectively the plans of executive directors from the perspective of an institutional investor.

Arguments against appointment Independence

As the representative of a significant institutional investor in QP, Adrian cannot be regarded as an independent non-executive director under governance best practice such as the UK Corporate Governance Code. Adrian has perhaps been suggested because current board members believe, based on their previous dealings with him, that he will be reluctant to challenge their strategies. Also Adrian does not appear to be stepping down from the City Pensions' board. If he does not do so, his duties to promote the best interests of City Pensions and QP may conflict. Other significant investors may consider that Adrian's appointment would give City Pensions a privileged position and demand board representation themselves.

Lack of fresh perspective

Adrian may **not be able to bring a fresh perspective** to the affairs of QP. As City Pensions' representative, Adrian has already had chances to raise concerns about QP's strategies or how QP is being governed. Possibly, Adrian is unlikely to raise new issues if appointed as a director.

Recommendation

Adrian's connections mean that he cannot be regarded as an **independent non-executive director**. This would limit his contribution to the board, as he could not serve on **audit or remuneration committees** under governance best practice. The board would be some way short of fulfilling the requirement of governance best practice that at least half the board should be independent non- executive directors. For this reason, Adrian should not be appointed.

Nicole

Arguments for appointment ICAEW membership

Nicole's membership of a CA Institute means that she is subject to **ethical code**. This should guarantee that she brings to the board essential qualities such as **integrity and objectivity**.

Adherence to **continuing professional education requirements** will obligate Nicole to make sure that she has the relevant, up to date, knowledge needed to contribute effectively as a director.

Wide experience

Nicole can bring a **fresh perspective** to the board, based on experience of a number of different sectors. Her experience as finance director on the bank's board, together with CA membership, means that Nicole has the **recent financial knowledge**, highlighted by governance reports as a requirement for the audit committee. Nicole will also bring contacts in the banking sector, which may be useful when QP is dealing with major lenders.

Arguments against appointment Independence

Nicole is about to retire. We are **not given details of any other sources of income** that Nicole has, although Nicole probably has a pension from the bank.

Nicole's fees as non-executive director may be a **significant proportion of her income** going forward. There is the risk that Nicole may be less willing to challenge and upset other directors and jeopardise this source of income.

Lack of previous involvement in sector

Nicole does not appear to have had **previous involvement** in this specific sector. Nicole will need to have a **more extensive induction programme** than Adrian would.

Recommendation

Nicole should qualify as an independent non-executive director. The benefits that Nicole's CA membership and wider experience will bring should mean that Nicole is offered a directorship. Her role should include chairing the audit committee.

Helen

Arguments for appointment Political knowledge

Helen should be able to bring expert knowledge of the **political and legal environment** to the board, helping the board assess risks in this area. QP may be able to use the political contacts that Helen has, and use her expertise to lobby against damaging changes to legislation.

Other directorships

Helen is currently on **two other boards**. The perspective she gains from serving on these boards may inform her contribution to QP's board. Helen may be able to **benchmark** what QP is doing against practice elsewhere. She should also have gone through an **induction process** at these companies and be aware of responsibilities in law and under governance best practice.

Arguments against appointment Time

Helen is already a director of two other companies and this may limit the time that can be spent as a director of QP to an **unacceptably low level**.

Lack of previous involvement in sector

Helen does not appear to have had any previous experience in the chemical sector, unlike Adrian. Helen also appears to lack Nicole's financial knowledge.

Recommendation

Helen should be considered for one of the vacant directorships. However, before Helen is appointed, the board should obtain **guarantees that she will spend sufficient time** on QP's affairs.

Answer to Interactive question 2

2.1 The effectiveness of non-executive directors may be limited by the following factors.

Having the same perspective as executive directors

The corporate governance reports stress the importance of non-executive directors possessing independent judgement and being appointed by a nomination committee. However, the nomination committee may restrict its search to **directors** who will **'fit in'** with the rest of the board, and may be **unwilling to recruit** from a **diversity of backgrounds**, for example stakeholders such as employees. In addition, many non-executive directors will only agree to serve on the boards of companies if they admire the company's chairman or its way of operating.

Lack of independence

In many companies, non-executive directors have been appointed through business or social contacts with directors. It may be difficult to find **non-executive directors** who **fulfil the independence requirements** of the corporate governance reports or freedom from any relationship that compromises independence.

Lack of business knowledge

This can be the other side of the coin to the problem of lack of independence. Potential non- executive directors who have good knowledge of the business and industry may have gained that knowledge through links with the company in the past.

Lack of human resource management

Limited time may mean that non-executive directors do not have proper **induction** into the company, nor **proper updating and refreshment** of their skills and knowledge of the company. Their **performance may not be appraised** regularly; it should form part of an **annual appraisal** of the **board's activities**.

Limited time

The most knowledgeable and effective non-executive directors are likely to have other significant demands on their time. As directors, they have to fulfil **certain legal requirements**. Apart from their contributions to the main board, they will also probably spend time at **meetings of board committees** such as the audit and remuneration committees. The limited involvement resulting from the lack of time may limit their ability to contribute to board meetings, since they are **unable to obtain** a **broad enough picture** of what is happening throughout the organisation.

Information available

Non-executive directors' contribution will also depend on the information that is readily available to them as directors. This will be influenced by the quality of the **organisation's information systems**, and also the **willingness** of **executive directors** to supply information about their activities.

Role of board

Corporate governance reports (such as the UK Corporate Governance Code) stress the importance of non-executive directors being involved in **strategic decisions**. If non-executive directors are involved in formulating strategy, they can fulfil their key role, that of **warning of potential problems** and hence **preventing trouble**. However, board meetings may focus almost entirely on **current operational matters** and short-term operational results. In addition, a focus at board meetings on short-term results may mean that non-executive directors **assess** the **performance** of the organisation using short-term indicators and its management, and do not focus on **longer-term issues**, such as changes in product mix or re-engineering of the organisation's processes.

Inability to resist pressures

Non-executive directors have limited options when faced with a **united group** of **executive directors** who are determined to push through a policy with which the non-executive directors disagree. Their ultimate weapon is **resignation** but, if all or a number of non-executive directors resign, they may precipitate a crisis of confidence in the company. Alternatively, they can remain in office, but then if serious problems arise, the executive directors may have to depart from the board, leaving the non-executive directors with the responsibility for 'picking up the pieces'.

2.2 The effectiveness of audit committees could be improved in the following ways.

Appointment requirements

Appointments could be **recommended** by a vote at the **annual general meeting**. Alternatively, certain stakeholders, for example employees, could have the right to appoint a member. These measures might improve the independence of committee members.

The **term of office** of committee members could be **limited** to ensure the committee retained a fresh perspective.

When nominating potential members, the selection process could be biased towards **recruiting members** with financial **accounting experience**, or **experience of large control systems**.

Members who have accountancy experience will be able to question the judgements that management make when preparing accountancy information.

Expansion of responsibilities

There are various ways in which the committee's remit might be expanded. They could have responsibility for **reviewing compliance** with **laws and regulations** such as environmental

legislation or ethical codes. Certain **transactions** could also be **referred automatically** to them for review.

Internal audit

As a major function of many audit committees is to oversee the role of internal audit, it follows that a **more effective internal audit function** will lead to more effective operation of the audit committee, by improving the quality of information that the audit committee review.

Statutory backing

Audit committees may become more effective if their establishment by certain organisations is made **compulsory**. The recommendations of internal audit will also be **reinforced by stricter accounting and auditing standards**.

Improvement in operations

Changes that might improve the way audit committees operate include the following.

(1) having **clear terms of reference**, agreed by the board

(2) establishment of an **annual plan**, giving details of the areas on which the committee will focus

(3) establishment of **standards** for the **frequency** of, and **form of reporting** to, the main board

(4) regular **review** of the **effectiveness** of the audit committee, including whether its recent work has been correctly focused

Answer to Interactive question 3

3.1 The UK's Institute of Internal Auditors suggests that the board needs to consider the following information in order to carry out an effective review.

(1) The organisation's **code of business conduct**

(2) Confirmation that line managers are **clear as to their objectives**

(3) The overall results of a **control self-assessment** process by line management or staff

(4) **Letters of representation** ('comfort letters') on internal control from line management (confirmations about the operation of systems or specific transactions)

(5) A **report** from the audit committee on the **key procedures** that are designed to provide effective internal control

(6) **Reports from internal audit** on audits performed

(7) The audit committee's **assessment** of the **effectiveness of internal audit**

(8) Reports on **special reviews** commissioned by the audit committee from internal audit or others

(9) Internal audit's **overall summary opinion on internal control**

(10) The **external auditors' report on weaknesses** in the accounting and internal control systems and other matters, including errors, identified during the audit

(11) **Intelligence** gathered by board members during the year

(12) A **report on avoidable losses** by the finance director

(13) A **report on any material developments** since the reporting date and up to the present

(14) The board's proposed wording of **the internal control report** for publication

3.2 The following employee attitudes will be relevant.

Response to management behaviour

Employees may not take controls with the **same degree of seriousness** that management does. They will take into account how strictly controls are applied by senior managers, whether senior managers override controls, and whether follow-up action is taken by management if control weaknesses are identified.

Realism of controls

If employees see **controls as unrealistic** because, for example, there is insufficient time to operate them, they may not take management review of controls seriously.

Employee collusion

If employees do collude, the evidence available to management may be **undermined**. Collusion may not necessarily be hiding fraud. It could be a shared intention to thwart what is seen as unnecessary bureaucracy. The fact, for example, that there are two signatures on a document does not necessarily mean that it has been checked properly.

Focus on certain controls

If **a lot of emphasis is placed on certain controls**, reports on which the annual review is based will stress the operation of those controls and provide less detail of other controls that are also significant.

Prioritisation

Many employees may feel that controls are bureaucracy and, as such, interfere with more important day to day work. This may mean, for example, that controls are **not operated when they should be**, but some time later, and so the evidence the annual review is relying on may not be as strong as it appears.

Reliance on memory

Some controls may be dependent on **knowledge held in the mind of employees**. The employees concerned may be happy about this because it reinforces their position, but it can lead to a lack of clarity about whether controls have operated and also inconsistency and misunderstanding, when controls depend on the attitudes of the person operating them.

Answers to Self-test questions

1 Non-executive directors

Business expertise

Non-executive directors can broaden the level of expertise on the board, which may be fairly limited.

Strategy

A non-executive director should be able to bring an independent viewpoint on strategy. A non- executive director may be more inclined to of the board.

Performance scrutiny

A non-executive director can **scrutinise the work done by executive management** and monitor how performance is reported to the board. This will include whether the company is **developing reporting systems** that will be sufficient to provide the reliable information that will be required if it seeks and obtains a listing.

Risk

A non-executive director can also **review the reports on risks and risk management** that derive from the system established by the risk management function. The director will assess whether risks appear to be adequately managed, and also that the systems **fulfil the requirements** of **governance best practice** with which the company will have to comply if it obtains a listing.

Directors and management

The non-executive director can assess the performance of directors and managers, and can be responsible for advising on a remuneration structure that **fairly rewards the performance of directors**

. They can also advise on what the **concerns of external shareholders** will be if the company seeks a listing and how management will best **demonstrate its accountability** to a new shareholder base.

2 GFE

Split of role of chairman and CEO

Governance reports recommend that the roles of CEO and chairman should be split between different individuals, to avoid there being an excessive concentration of power in the hands of one individual. At present, the CEO is able to **manipulate the information** the board receives, to protect his position. It seems best for one of the existing NEDs to be appointed as chairman. Splitting the roles emphasises that the two jobs are distinct, with the **CEO running the charity** and the **chairman** running the board. The chairman can ensure the CEO is accountable for his actions by, for example, ensuring the board **has enough information** to exercise oversight of the CEO.

Appointment of secretary

The board's functioning would be better if someone acted as company secretary. The secretary could undertake a number of tasks currently undertaken by the CEO, including **distributing board minutes** in advance of meetings and **briefing board members in relation to each agenda item**. This would free up the time of the CEO or chairman. The secretary should be accountable to the board collectively, and should, if necessary, have the **independence** to come into conflict with the CEO if the secretary believes it is in the interest of GFE.

More executive directors

Governance reports typically suggest that at least half the board should be independent, non- executive directors – to ensure an appropriate balance between executive and non-executive directors. At GFE five out of seven directors are non-executives, which does not appear to be an appropriate balance. The UK Higgs report commented that there is a greater risk of distortion or withholding of information, or lack of balance in the management contribution, when there is only one, or a very small number, of executives on the board. GFE should consider appointing one or two more executive directors; for example, an operations director. This would also help with **succession planning**, and lead to a greater emphasis on **risk management** and **operational control** at board level.

Audit committee

Appointing a **separate audit committee** will enable the main board to concentrate more on strategic and operational matters, leaving the audit committee to undertake the **detailed** financial **review** that is a major part of current board meetings. The audit committee should also be **responsible for the appointment of auditors** and for **liaison with them about further work, including a review of controls**. At present, the auditors' ability to exercise independent scrutiny could be questioned, since they have been appointed by the CEO. Governance reports recommend that all members of the committee should have sufficient financial expertise to contribute effectively, and that one member should have **relevant and recent** financial **experience**. New directors may therefore need to be recruited to fulfil this requirement or existing members **receive training**.

Nomination committee

A nomination committee of NEDs would **oversee the appointment of the new directors** that GFE's board appears to need. The committee would also review other important issues of board functioning that have not been considered recently, such as:

- the balance between executives and NEDs
- whether there are **gaps between the skills, knowledge and experience** possessed by the current board and what the board ideally should have
- the need to attract board members from a variety of backgrounds
- whether GFE will need to pay **some NEDs** to attract the right candidates

Independent NEDs

Governance reports recommend that at least half the board are **independent NEDs**, without business or financial connections, who face re-election regularly. Independent NEDs will be particularly important for GFE as it is a charity, and stakeholders will rely on NEDs to provide unbiased scrutiny of how the executive directors are conducting its affairs. It is possible that none of the current NEDs can be classed as independent, since they have all been appointed on the basis of previous business connections.

Expert NEDs

NEDs with **experience of the charity sector** need to be appointed. The reason given for not discussing operational matters, that these are outside the directors' experience, indicates that as a body, the NEDs have **insufficient expertise** at present. The CEO's belief that the executive management team is more than capable of managing the delivery of the in-home care services misses the point. NEDs should **scrutinise**, and if necessary **challenge**, the way the CEO is running operations, drawing on their own experience.

Stakeholder representation

There appears to be a **lack of stakeholder representation** on the board, with fund providers, volunteer helpers and users of GFE's services not being represented. Having a user representative on the board would mean that the board received **direct feedback on the effectiveness of the charity's activities**. Stakeholder representatives could also **provide feedback** to the stakeholders they represent on the reasoning behind board decisions and GFE's current strategy.

Changes in board membership

It seems that new NEDs need to be appointed to provide the **expertise and independence** the board is currently lacking. Corporate governance reports recommend that the board should not be so large as to be unwieldy; therefore, some of the new board members may have to replace existing board members.

3 Highland Energy Company

3.1 Difficulties in internal control

Nature of terrain

The pipeline is 1,000 km in length and thus is a very substantial project to oversee and maintain. Much of the pipeline runs over rough terrain, that is often afflicted by poor weather. It can therefore be difficult to monitor the condition of the whole pipeline and assess the magnitude of likely threats to it.

Failure to recruit quality staff

Staff have had to endure poor working conditions and have not been paid particularly well. These factors have meant that it has been difficult to recruit staff with the technical expertise required to operate certain controls effectively.

Poor morale

The morale of HEC's workforce has been low for some time. This has resulted in poor industrial relations, a lack of awareness of the importance of control mechanisms, a lack of risk awareness and a lack of trust between staff and management. All of this will mean that staff have not been motivated to operate controls to the high standards required.

Reliance on foreign labour

HEC has had to recruit foreign labour in order to maintain the levels of staffing required for operations. There have, however, been problems with workers from overseas. Language difficulties appear to have meant that some staff have not been able to understand any complex technical instructions they have been given and have failed to do as they were told and operate internal controls properly.

3.2 The establishment of an internal audit function, reporting to the board of directors, is a first step in improving the situation at HEC. This function will have a number of roles, and can bring several benefits by providing assurance in the following areas.

Effectiveness of internal controls

An internal audit will carry out a monitoring role, assessing the adequacy of HEC's internal control systems and testing the effectiveness of their operations. The nature of HEC's operations means that control systems will necessarily be complex, and it is important that evidence is obtained through the work of internal audit that the control systems are functioning effectively.

Risk management systems

Similarly, internal audit's review of risk management provides evidence that systems are operating effectively in the challenging environment in which HEC operates. Internal audit will test whether HEC has systematic processes in place for identification of strategic risks, and effective and thorough strategies for dealing with the significant risks that have been identified.

Compliance with laws and regulations

HEC is likely to be operating in a highly-regulated environment. The legal penalties imposed upon the company for breaches could be extremely severe. Internal audit work will review whether the systems HEC has in place are sufficient to ensure compliance with laws and regulations, and that staff are fulfilling the requirements imposed upon them. Internal audit will also review compliance with the contractual terms of the supply agreement with customers in Exland.

Chapter 7

Business risk management

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Introduction

Learning outcomes

- Explain and analyse an organisation's current position and performance using both financial and non-financial data, presented in different formats, applying appropriate statistical and data analysis tools
- Explain and evaluate the causes and effects of different types of data distributions and data trends using appropriate statistical and data analysis tools, including the implications for business risk; determining and explaining sensitivity in a range of scenarios
- Structure, assimilate and evaluate historic and estimated data in appropriate ways, using appropriate statistical and data analysis tools, to support business decisions
- Analyse and evaluate the key types of business risks using relevant quantitative and qualitative data and assess their implications within a given scenario, for business strategy and corporate reporting disclosures
- Advise on the risks involved in business and organisational plans and show how these risks can be managed by assurance procedures and other forms of risk mitigation, including managing the strategic, operating and financial risks arising from climate change
- Explain the responsibility of those charged with governance for managing risk and assess the role of assurance in risk mitigation
- Assess the impact of risk on a variety of stakeholders
- Explain and assess the various steps involved in constructing a business risk management plan, by establishing context, identifying risks and the assessment and quantification of risk
- Evaluate and explain the limitations of business risk management
- Assess and explain enterprise risk management, evaluating its framework and its benefits; and analyse, structure and assimilate data provided to evaluate business risks under a range of complex scenarios using appropriate statistical and data analysis tools, recognising various types of data bias in a variety of scenarios
- Analyse, structure and assimilate historic and forecast data provided to evaluate performance, position and risk using relevant statistical tools and spreadsheets, recognising the sensitivity of forecasts to underlying assumptions and changes in estimates
- Assimilate, structure and analyse transactions and other granular data provided, using spreadsheets.

Knowledge brought forward

Business Strategy & Technology covered the risk assessment and management process and we revise the main stages briefly in sections 5 and 6.

Syllabus links

A key point about the enterprise risk management process discussed here is its strong links to the strategy-setting process that we have already touched on in earlier chapters.

Examination context

If you have to analyse business decisions or situations, the assessment may well include identification and evaluation of risks. You may need to make recommendations about risk management, either dealing with specific risks or recommending an overall framework that is appropriate for the business.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Business risks** Risk is one of the penalties entities pay for being in business. Every organisation – be it a multinational company or a small sole trader – faces risk every day. In a world where risk and its effects on corporate objectives are viewed with increasing concern, entities need to have an effective risk management programme in place to alleviate some of the more serious effects. Boards also need to manage positive or upside risk in order to maximise shareholder wealth.	**Approach** This chapter starts with a review of the main risks organisations face. Pay close attention to the case studies in the chapter as they show how risk management has been applied (or not applied) in practice. **Stop and think** How difficult is it for directors to assess their risk appetite?	In the exam you could be asked to discuss the risks arising from major strategic decisions. You may need to discuss the threats to reputation arising from adverse events in the organisation, poor attitudes to ethics or poor corporate social responsibility.	**IQ1: Nature and extent of risks** This question is designed to encourage idea generation and to get you thinking about business risk in the real world. You will find many of the exam questions easier if you develop your business acumen through wider business reading.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Enterprise risk management** Enterprise risk management provides a framework for organisations to deal with risk. The framework is designed to identify potential risk events and to manage these risks in accordance with the organisation's risk appetite	**Approach** Section 2 provides a template that you can use to discuss the effectiveness of an organisation's overall risk management framework. Also note the point highlighted in COSO's ERM framework that it is important for organisations to consider risk when developing strategies and setting their objectives, as well as considering how risks could affect their ability to implement a	In the exam you could be asked to recommend ways in which specific risks can be managed. The exam will not require a detailed analysis of the COSO ERM Framework. Instead you may be asked to identify strengths and weaknesses of the framework an organisation has in place to manage risks. You can refer to the COSO framework to help you generate ideas.	
		strategy successfully. **Stop and think** Who determines the risk appetite of an organisation?		

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Risk management responsibilities** Consideration of risk issues should be an integral part of board agendas. The board should ensure that effective control systems are in place through its various committees and processes.	**Approach** In this section you should focus particularly on the responsibilities of senior managers and risk specialists, who have most influence on how effectively an organisation manages its risks. Ensure you understand the key role of the board in setting the tone and culture for appropriate for risk management. **Stop and think** How can risk management and control systems be embedded within business processes?	In the exam you could be asked to discuss the responsibilities of directors and staff for managing risks.	
4	**Stakeholders and risk** An organisation's attitude to risk will be influenced by stakeholder priorities and it is therefore important for an entity to assess how much leverage stakeholders have over it.	**Approach** Make sure you understand the needs and concerns of key stakeholder groups when it comes to risk. **Stop and think** Should shareholder concerns take priority over other stakeholders when managing risk?	Stakeholder concerns and priorities will differ from scenario to scenario. You should be comfortable identifying stakeholder needs so that you can assess if risk is being managed appropriately and recommend improvements where there are any weaknesses.	
5	**Risk assessment** Identifying risks that an organisation	**Approach** This section explores the	It is unnecessary to rote learn and repeat the risk management	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
	faces should be a continuous process and organisations should have formal methods to collect information on risk and response. Statistical methods such as the standard deviation may also be used to evaluate particular risks.	different stages of the risk analysis and management process. **Stop and think** On what basis should a business decide which risks to avoid and which risks to reduce?	process in the exam. Instead, you require a general awareness of the activities an organisation must undertake to identify and manage risks so that you can recommend suitable improvements to the process. You may need to interpret statistical information and do calculations in spreadsheets.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
6	**Risk response** The ways in which organisations may respond to similar risks can differ significantly. Risk responses vary depending on factors such as the potential impact of risk on the organisation and on management's attitude towards risk.	**Approach** This section looks at the different ways organisations can respond to risks. Review the risk response framework and practise applying it to an entity by attempting IQ2. **Stop and think** Consider an organisation you are familiar with. Which risks have they chosen to accept rather than to manage? Why is this the case?	It is important in the exam that you are able to identify, prioritise and suggest responses to a range of risks. Your recommendations should be practical and tailored to the circumstances in the exam scenario.	**IQ2: VSYS** This comprehensive question asks you to assess risks associated with a decision to outsource, recommend how to control the risk and outline the assurance work to be carried out on suppliers. This is a typical SBM&L question drawing on several areas of the syllabus and requiring application of knowledge to a scenario. **IQ3: Budget airline** This short scenario- based question focuses on suitable risk strategies for an airline. Your answer should be practical drawing on your commercial acumen. To help you, download an airline's annual report to review their risks and associated risk management
				strategies. **IQ4: LP** This is another practical question asking you to explain and manage the risks present in the scenario; the second part of the question introduces some corporate reporting.

CHAPTER 7

Topic	Practical significance	Study approach	Exam approach	Interactive questions
7	**ESG and climate risk management** In the last two decades, risks relating to ESG factors have become more prominent, and organisations need to ensure that these are considered in the risk management process.	**Approach** Read through this section to build up an awareness of the types of risk associated with ESG factors and climate change. Review the summary of guidance to enterprise risk management for ESG. **Stop and think** Why have risks relating to ESG become more critical over the past two decades?	Exam questions may require you to identify and evaluate risks, and these could include risks relating to ESG or climate change. Questions may also ask you to discuss the company's approach to managing ESG risks.	

Once you have worked through this guidance you are ready to attempt the further question practice included at the end of this chapter.

1 Business risks

Section overview

1 Business risks

- Risk, and internal management's attitude towards it, has a considerable bearing on the way in which different organisations conduct their business – that is, their business strategy.
- The risk of an organisation, whether genuine or perceived, has a direct effect on a firm's cost of capital, the rates of interest it pays on its loans, and therefore the types of projects it can pursue.

1.1 Risk and uncertainty

Risk and uncertainty must always be taken into account in strategic planning. Many areas of risk and uncertainty are exogenous – that is, outside the control of the organisation.

1.1.1 Risk

Risk is sometimes used to describe situations where outcomes are not known, but their probabilities can be estimated. (This is the underlying principle behind insurance.)

1.12 Uncertainty

Uncertainty is present when the outcome cannot be predicted or assigned probabilities. For example, many insurance companies exclude 'war damage, riots and civil commotion' from their insurance cover.

1.2 Risk and business

Risk is bound up with doing business.

It may not be possible to eliminate risks without undermining the whole basis on which the business operates, or without incurring excessive costs and insurance premiums. Therefore, in many situations, there is likely to be a level of residual risk that is simply not worth eliminating.

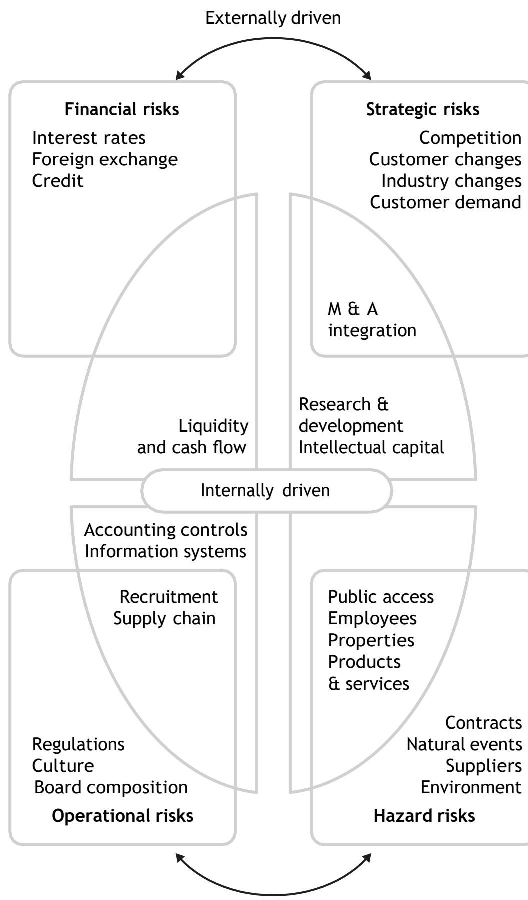
There are some benefits to be derived from the management of risk, possibly at the expense of profits, such as:

- predictability of cash flows
- limitation of the impact of potentially bankrupting events
- increased confidence of shareholders and other investors

However, boards should not just focus on managing negative risks; they should also seek to limit uncertainty and to manage speculative risks and opportunities in order to maximise positive outcomes and hence shareholder value.

In its *Risk Management Standard*, the Institute of Risk Management linked key value drivers for a business with major risk categories.

Figure 7.1: The links between value drivers and risk categories



Externally driven
Risk drivers

(Source: Institute of Risk Management – *A Risk Management Standard*)

1.3 Risk and managers

It is worth noting that shareholders and managers have different approaches to risk.

- Shareholders can spread risk over a number of investments.
- Managers' careers tend to be bound up with the success or failure of one particular company, so managers are therefore likely to be more risk-averse than shareholders might be.

1.4 Risk appetite

Since risk management is bound up with strategy, how organisations deal with risk will not only be determined by events and the information available about events, but also by **management perceptions or appetite** to take risk. These factors will also influence risk **culture**, and the values and practices that influence how an organisation deals with risk in its day-to-day operations.

1.4.1 Personal views

Surveys suggest that managers acknowledge the **emotional satisfaction** from successful risk taking, although this is unlikely to be the most important influence on appetite.

1.4.2 Response to shareholder demand

Shareholders demand a level of return that is consistent with taking a certain level of risk. Managers will respond to these expectations by viewing risk taking as a key part of decision-making.

1.4.3 Organisational influences

Organisational influences may be important, and these are not necessarily just a response to shareholder concerns. Organisational attitudes may be influenced by **significant losses** in the past, **changes in regulation and best practice**, or even **changing views** of the benefits that risk management can bring.

1.4.4 National influences

There is some evidence that national culture influences attitudes towards risk and uncertainty. Surveys suggest that attitudes to risk vary nationally according to how much people are shielded from the consequences of adverse events.

1.5 Risk appetite and attitudes

Definitions

Risk appetite: is the nature and strengths of risk that an organisation is prepared to bear.

Risk attitude: is the directors' views on the level of risk that they consider desirable.

Risk capacity: describes the nature and strengths of risk that an organisation is able to bear.

Different businesses will have different attitudes towards taking risk. The risk appetite of directors was discussed in Corporate governance.

Risk-averse businesses are **not** businesses that are seeking to avoid risks. They are businesses that are seeking to obtain sufficient returns for the risks they take. Some risks may be an unavoidable consequence of operating in a particular business sector. However, there will be upper limits to the risks they are prepared to take, whatever the level of returns they can earn.

Risk-seeking businesses are likely to focus on maximising returns and may not be worried about the level of risks that have to be taken.

Most risks must be managed to some extent, and some should be eliminated as being outside the business. Risk management is an integral part of **strategy**, and involves analysing what the **key value drivers are** in the organisation's activities, and the risks tied up with those value drivers.

For example, a business in a high-tech industry, such as computing, which evolves rapidly, has to accept high risks in its research and development activities, so perhaps should not add to that risk by speculating on interest and exchange rates within its treasury activities.

Another issue is that organisations that seek to **avoid risks** (for example, public sector companies and charities) do not need the elaborate and costly control systems that a risk-seeking company (such as those that trade in derivatives, volatile share funds or venture capital companies) may have.

1.6 Conformance and performance

The International Federation of Accountants (IFAC) has highlighted two aspects of risk management which can be seen as linking in with risk aversion and risk seeking.

(a) **Conformance** focuses on controlling pure (only downside) strategic risks. It highlights compliance with laws and regulations, best practice governance codes, fiduciary responsibilities, accountability and the provision of assurance to stakeholders in general. It also includes ensuring the effectiveness of the risk analysis, management and reporting processes, and that the organisation is working effectively and efficiently to achieve its goals.

(b) **Performance** focuses on taking advantage of opportunities to increase overall returns within a business. It includes policies and procedures that focus on alignment of opportunities and risks, strategy, value creation and resource utilisation, and guides an organisation's decision-making.

IFAC guidance states that risk management should seek to **reconcile performance and conformance**

– the two enhance each other. Case studies and surveys commissioned by the IFAC have shown that many people believe that organisations focus too much on compliance, and not enough on strategy and building a business.

Interactive question 1: Nature and extent of risks

In the context of a major confectionery and non-alcoholic beverage company, identify the nature and potential extent of **six** risks that the company might face. (These risks should be specific to the industry in question.)

See **Answer** at the end of this chapter.

1.7 Sources of risk

1.7 .1 Sources of risk and uncertainty

Risk	Comment
Physical	Earthquakes, fire, flooding, equipment breakdown. In the long term, climatic changes: global warming, drought (relevant to water firms).
Economic	Assumptions about the economic environment may be incorrect. Not even the government forecasts are always correct.

Risk	Comment
Business	Lowering of entry barriers (eg, new technology); changes in customer/supplier industries, leading to changed relative power; new competitors and factors internal to the firm (eg, culture); management misunderstanding of core competences; volatile cash flows; uncertain returns; changed investor perceptions, increasing the required rate of return.
Product life cycle	Different risks exist at different stages of the life cycle.
Political	Nationalisation, sanctions, civil war, political instability – all these can have an impact on the business.
Financial	Can be affected by changes in interest rates, economic climate, gearing, bad debt risk, liquidity, insolvency.
Reputation	Loss of reputation caused by the adverse consequences of another risk. The loss of reputation will be usually perceived by external stakeholders, and may have serious consequences, depending on the strength of the organisation's relationship with them.

CHAPTER 7

1.7.2 Strategic risks

Definition

Strategic risk: Potential volatility of profits caused by the nature and type of the business's activities.

The most significant risks are focused on the **strategy** the organisation adopts, including concentration of resources, mergers and acquisitions and exit strategies. The market segments that the business chooses will be a significant influence. These will have major impacts on **costs, prices, products and sales** and also the **sources of** finance used. Risks are likely to be greatest for those in start-up businesses or cyclical industries. However, one of the most notable victims of the financial crisis in 2007–8, Lehman Brothers, was not immune to business risks, even after 158 years of operating.

Organisations also need to guard against the risks that **business processes and operations** are **not aligned** to **strategic goals**, or are disrupted by events that are not generated by business activities.

Strategic risks can usefully be divided into:

- threats to profits, the magnitude of which depends on the decisions the organisation makes about the products and services it supplies, and how it supplies them
- threats to profits that are not influenced by the products or services the organisation supplies

Risks to products and services include long-term **product** obsolescence. **Changes in technology** also have long-term impacts if they change the production process, or the way that products and services are distributed to customers (eg, e-commerce versus physical shops). Long-term **macroeconomic changes**, for example a worsening of a country's exchange rate, are also a threat.

Non-product threats include risks arising from the long-term **sources of** finance chosen and risks from a collapse in trade because of an **adverse event**, an accident or natural disaster.

1.7.3 Operational risks

Definition

Operational risk: The risk of loss through a failure of business and internal control processes.

Operational risks include:

- losses from internal control systems or audit inadequacies
- non-compliance with regulations or internal procedures
- information technology failures
- human error
- loss of key-person risk
- fraud
- business interruptions

The main difference between strategic and operational risks is that strategic risks relate to the organisation's **longer-term** place in, and relations with, the **outside environment**.

Operational risks are what could go wrong on a **day to day basis**, and are not generally very relevant to the key strategic decisions that affect a business, although some can have a major impact on the business's future.

(a) For example, the **legal risk of breaching laws in day to day activities** (for example, an organisation's drivers exceeding the speed limit) would be classed as an **operational risk**. However, the legal risk of stricter health and safety legislation forcing an organisation to make changes to its production processes would be classed as a **strategic risk**, as it is a long-term risk impacting seriously on the way the business produces its goods.

(b) The same is true of information technology risks. The risk of a **system failure, resulting in a loss of a day's data**, would clearly be an **operational risk**. However, the risk from using **obsolete technology** would be a **strategic risk**, as it would affect the organisation's ability to compete with its rivals.

Professional skills focus: Assimilating and using information

In order to assess the scale of risk you should use a range of data types and sources to inform your analysis. If an exam scenario presents financial or numerical data it is advisable to use this to provide quantification of the risk, as well as using qualitative analysis to review the impact on the business.

1.8 Business risk and financial risk

1.8.1 Business risk

Business risk, as the name suggests, is the risk associated with the day to day operations of a particular company. It relates to the variability of operating cash flows, the company's exposure to markets, competitors, exchange rates and so on. It is part of the company's overall systematic (or undiversifiable) risk.

1.8.2 Financial risk

Financial risk can be seen from different points of view:

(a) **The company as a whole**. If a company borrows excessively, it may have insufficient funds to meet interest and capital repayments, which may eventually force it into liquidation.

(b) **Lenders**. If a company to whom money has been lent goes into liquidation, lenders may not be paid in full. Companies considered to be a risky investment will be charged higher rates of interest to compensate lenders for the possibility of default.

(c) **Ordinary shareholders**. This group is at the bottom of the list for payment in the event of a company winding up. The lower the profits, and the higher the level of gearing, the greater the risk that is faced by ordinary shareholders.

1.8.3 Relationship between business and financial risk

Business risk is borne by both the firm's equity holders and providers of debt, as it is the risk associated with investing in the firm in whatever capacity. The only way that either party can get rid of the business risk is to withdraw its investment in the firm.

Financial risk, on the other hand, is borne entirely by equity holders, payment to debt holders (ie, interest) taking precedence over dividends to shareholders. The more debt there is in the firm's capital structure, the greater the financial risk to equity holders.

1.9 Compliance risk

Compliance risk is the risk arising from an organisation's failure to comply with laws, regulations, codes of conduct, or standards of practice. Such risks have both an operational and a strategic aspect.

- Operationally, compliance risks are risks that an organisation (and its employees) will fail to comply with established procedures that are designed to ensure compliance with a law or regulation. There may also be a risk that established procedures for achieving compliance are ineffective and do not achieve their intended purpose, so that non-compliance occurs.
- Strategically, compliance risks arise from the possibility that laws or regulations will be changed, so that new compliance procedures must be devised and implemented. In some industries that are heavily regulated, there is also a risk that a regulator will decide that the organisation is failing to comply with regulations.

If an organisation fails to comply with laws and regulations, it could face direct legal consequences (for example, fines or penalties), but compliance risks could also have a wider impact:

- Legal impact: Legal or regulatory action brought against a company, or its management, could result in fines or other financial penalties, or imprisonment.
- Financial impact: The negative impact of regulatory or legal action could affect a company's profits, share price, potential future earnings, and consequently investor confidence in it.
- Reputational impact: The negative publicity arising from non-compliance may damage an organisation's reputation or brand, and could lead to a loss of customer trust in it.
- Business impact: failure to comply with regulatory requirements could lead to an

organisation's factories being shut down, or embargoes being placed on its products, thereby significantly disrupting its ability to operate (thereby reinforcing the negative financial impact).

1.9.1 The General Data Protection Regulations (GDPR)

There is growing concern among customers that any data they provide to organisations could be misused, or that their privacy will suffer. This presents a challenge for organisations in determining how best to address their customers' concerns. Organisations also have to comply with the provisions of the General Data Protection Regulations (GDPR), which came into force in May 2018.

As we noted in Corporate governance, GDPR imposes strict requirements over the collection, storage and use of personal data.

GDPR

Companies covered by the GDPR are accountable for their handling of people's personal information. This includes having data protection policies, data protection impact assessments and having relevant documents on how data is processed. Under GDPR, data breaches must be reported

to a country's data protection regulator where it could have a detrimental impact. This can include financial loss, confidentiality breaches and damage to reputation.

GDPR is discussed in more detail in Information strategy.

Context example: Facebook and Cambridge Analytica

In early 2018 it was widely reported that Cambridge Analytica, a UK based data analytics and political consulting firm, had improperly gained access to the data of millions of Facebook users.

BBC (2018) reported that the number of people affected by the scandal could be as high as 87 million. The allegations against Cambridge Analytica centred around the alleged use of data from millions of Facebook users to build a system that could target them with personalised political messages, during the UK's Brexit referendum campaign and the 2016 US presidential election, won by Donald Trump.

The way Cambridge Analytica collected the information, without authorisation, violated Facebook's data security policies, and was cited as one of the company's biggest ever data breaches. Facebook users were unaware that companies were selling their data.

Amid claims that Facebook had been aware of the data breach for a number of years, Facebook's CEO Mark Zuckerberg explained that "clearly we should have done more, and we will going forward" (BBC, 2018). He pledged to change Facebook's policy to prevent similar breaches, and published a personal letter in various newspapers apologising for the breach. It is believed the data breach occurred when Facebook users installed an app which captured their data, which was subsequently sold onto Cambridge Analytica.

In the weeks following news of the scandal Facebook's share price fell, and Mark Zuckerberg appeared before the influential US House of Commerce Committee to answer questions relating to the allegations.

In July 2018, the Information Commissioner's Office (which enforces GDPR in the UK) announced that it intended to fine Facebook £500,000 over the data scandal, saying that the company had contravened the law by failing to safeguard people's information.

Source:

BBC (2018). Facebook scandal 'hit 87 million users'. [Online]. Available from: www.bbc.co.uk [Accessed 30 April 2018]

Greenfield, P. (26 March 2018). The Cambridge Analytica files: the story so far. The Guardian. [Online]. Available from: www.theguardian.com [Accessed 30 April 2018]

1.10 Continuous vs event risk

Continuous risk, as the name suggests, is risk that companies face all the time, simply by virtue of being in business. Multinationals, for example, face the continuous risk of foreign currencies moving in the wrong direction and the political risks of operating in different countries. These risks must be continuously monitored as part of the company's general risk management policy.

Event risk is the risk of suffering excessive financial losses due to severe and sudden shocks arising from, for example, human error, natural disasters and stock market crashes. Event risks are difficult to predict but once these events have happened, there will be inevitable consequences, such as liquidity problems. Event risk is often characterised by contagion – that is, one event can precipitate other events whose effects spread across markets and end up affecting everyone. Companies can prepare for event risk by carrying out regular stress testing, which involves generating credible worst case scenarios that show how particular events could affect all relevant markets. It is essential for companies to have crisis management processes in place, covering such crucial areas as communication and leadership.

Context example: The global credit crunch

A credit crunch is a crisis caused by banks being too nervous to lend money to customers or to each other. When they do lend, they will charge higher rates of interest to cover their risk.

By August 2007, credit turmoil had hit financial markets around the world. In September 2007 in the UK, Northern Rock applied to the Bank of England for emergency funding after struggling to raise cash. This led to Northern Rock savers rushing to empty their accounts as shares in the bank

plummeted. In February 2008, the UK Chancellor of the Exchequer at the time, Alistair Darling, announced that Northern Rock was to be nationalised.

Years of lax lending on the part of the financial institutions inflated a huge debt bubble as people borrowed cheap money and ploughed it into property. In the US, billions of dollars of 'Ninja' mortgages (no income, no job or assets) were sold to people with weak credit ratings (sub-prime borrowers). The idea was that if these sub-prime borrowers had trouble with repayments, rising house prices would allow them to remortgage their property. In June 2004, following an interest rate low of 1%, rates in the US started to climb and house prices fell in response. Borrowers began to default on mortgage payments and the seeds of a global financial crisis were sown.

The global crisis stemmed from the way in which **debt was sold onto investors**. The US banking sector packaged sub-prime home loans into mortgage-backed securities known as **collateralised debt obligations** (CDOs). These were sold onto hedge funds and investment banks that saw them as a good way of generating high returns. However, when borrowers started to default on their loans, the value of these investments plummeted, leading to huge losses by banks on a global scale.

In the UK, many banks had invested large sums of money in sub-prime backed investments and had to write off billions of pounds in losses. On 22 April 2008, the day after the Bank of England unveiled a £50 billion bailout scheme to aid banks and ease the mortgage market, Royal Bank of Scotland (RBS) admitted that loan losses had hit £1.25 billion in just 6 weeks. In August 2008, RBS reported a pre-tax loss of £691 million (after writing down £5.9 billion on investments hit by the credit crunch) – one of the biggest losses in UK corporate history. At the beginning of 2009, RBS announced that it expected to suffer a loss of up to £28 billion as a result of the credit crunch. On 3 March 2008, it was reported that HSBC was writing off sub-prime loans at the rate of $51 million per day.

In September 2011, the Independent Commission on Banking in the UK issued a report recommending that UK banks' domestic retail operations (operations concerned with customer deposits, business lending and the transmission of money) should be ring-fenced from their wholesale and investment operations. Retail banking activities should be carried out by separate subsidiaries within banking groups, with the ring-fenced part of the bank having its own board and being legally and operationally separate from the parent bank. Ring-fenced banks should have a capital cushion of up to 20%.

Banks were given until 2019 to implement these requirements fully. The time period was set to coincide with the international capital requirements changes being introduced by the Basel regulators.

Under the provisions of the Financial Services (Banking Reform) Act 2013, the UK Treasury has the power to ring-fence the retail operations of large banks from their investment divisions, and to ensure that depositors recover their money before unsecured creditors if a bank becomes insolvent.

1.11 Managing risk in business strategy and financial strategy

Traditionally, management teams tend to be risk averse – that is, they prefer less risk and are prepared to take steps to reduce any potential risks arising from either being in business in general or from specific projects that the company undertakes. The objective of risk management is ultimately to have procedures in place that will reduce these risks to a level that is acceptable to the company and its shareholders. However, setting up and maintaining these procedures takes time, money and human resources, all of which are limited within any organisation.

Risk-averse managers may be willing to accept exposure to greater risks, but only if the expected returns are higher and sufficient to justify the additional risk.

1.12 Corporate reporting consequences

The risks businesses face and the judgements made about those risks have a number of specific consequences for financial reporting.

(a) Under IAS 10, *Events after the Reporting Period*, a business's view of risks will help determine which events are disclosed. Thus, for example, if there are significant exchange rate movements that could result in a risk of material foreign exchange losses, these movements would need to be disclosed. IAS 10 also requires management to make an explicit assessment of the entity's ability to continue as a **going concern** by considering a number of financial, operating and other indicators. Indicative of inability to continue as a going concern would be major restructuring of debt, adverse key financial ratios, substantial sale of non-current assets not intended to be replaced, loss of key staff or major markets. Going concern is considered in Section 2.6 of this chapter in the context of the Risk Guidance.

(b) Part of risk assessment is an analysis of the external business environment, including economic, technological and legal aspects. Adverse changes that are identified may not only require risk management action to be taken; they may also provide evidence of loss of value of assets that needs to be accounted for under the provisions of IAS 36, *Impairment of Assets*.

(c) Risk assessment is significant in a number of ways when applying the requirements of IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*. IAS 37 requires that a transfer of resources embodying economic benefits needs to be assessed as probable, if a provision is to be made. In addition, if the amount of the transfer may be affected by future events, then these should influence how much provision is made, if they are reasonably expected to occur. Allowance is to be made for uncertainty when the amount of a provision is calculated, so that if there are a large number of possible outcomes, the provision is estimated based on its **expected value**, by weighting outcomes with associated probabilities. If risk assessments are revised subsequently, then the amount of the provision may need to be revised as well.

Worked example: Provision

GreenCo prepares its financial statements in accordance with International Financial Reporting Standards. On 25 June 20X0, GreenCo made a public announcement of a decision to reduce the level of emissions of harmful chemicals from its factories. The average useful lives of the factories on 30 June 20X0 (the accounting reference date) was 20 years. The depreciation of the factories is computed on a straight-line basis and charged to cost of sales. The directors formulated the proposals for emission reduction following agreement in principle earlier in the year.

The directors prepared detailed estimates of the costs of their proposals and these showed that the following expenditure would be required.

- £30 million on 30 June 20X1
- £30 million on 30 June 20X2
- £40 million on 30 June 20X3

All estimates were for the actual anticipated cash payments. No contracts were entered into until after 1 July 20X0. The estimate proved accurate as far as the expenditure due on 30 June 20X1 was concerned. When the directors decided to proceed with this project, they used discounted cash flow techniques to appraise the proposed investment. The annual discount rate they used was 8%. The entity has a reputation of fulfilling its financial commitments after it has publicly announced them.

GreenCo included a provision for the expected costs of its proposal in its financial statements for the year ended 30 June 20X0.

Requirements

1 Summarise the criteria that need to be satisfied before a provision is recognised.

2 Explain the decision of the directors of GreenCo to recognise the provision in the statement of financial position at 30 June 20X0.

3 Compute the appropriate provision in the statements of financial position in respect of the proposed expenditure at 30 June 20X0 **and** 30 June 20X1.

4 Compute the two components of the charge to profit or loss in respect of the proposal for the year ended 30 June 20X1. You should explain how each component arises and identify where in the statements of profit or loss and other comprehensive income each component is reported.

Solution

1 The criteria that need to be satisfied before a provision is recognised

IAS 37 states that a provision should not be recognised unless:

- an entity has a present obligation to transfer economic benefits as a result of a past transaction or event;
- it is probable that a transfer of economic benefits will be required to settle the obligation; and
- a reliable estimate can be made of the amount of the obligation.

An obligation can be legal or constructive. An entity has a constructive obligation if:

- it has indicated to other parties that it will accept certain responsibilities (by an established pattern of past practice or published policies); and
- as a result, it has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

2 Two of the three conditions in IAS 37 are very clearly met. GreenCo will **incur expenditure** (transfer of economic benefits is virtually certain) and the directors have prepared **detailed estimates** of the amount.

Although GreenCo is not legally obliged to carry out the project, it appears that it has a **constructive obligation** to do so. IAS 37 states that an entity has a constructive obligation if both of the following apply.

(1) It has **indicated to other parties** that it will accept certain responsibilities (by an **established pattern** of past practice or published policies).

(2) As a result, it has created a **valid expectation** on the part of those other parties that it will discharge those responsibilities.

GreenCo has a reputation of fulfilling its financial commitments once they have been publicly announced. Therefore the obligating event is the announcement of the proposal on 25 June 20X0, the obligation exists at 30 June 20X0 (the year-end) and GreenCo is **required to recognise a provision**.

3 Provision at 30 June 20X0:

		£'000
Expenditure on:		
30 June 20X1	30,000 × 0.926	27,780
30 June 20X2	30,000 × 0.857	25,710
30 June 20X3	40,000 × 0.794	31,760
		85,250

Provision at 30 June 20X1:

Expenditure on:		£'000
30 June 20X2	30,000 × 0.926	27,780
30 June 20X3	40,000 × 0.857	34,280
		62,060

4

(1) **Provision at 30 June 20X0:**

Depreciation (85,250,000 × 20)	£4,262,500

This is reported in cost of sales.

The provision of £85,250,000 also represents an **asset** as it gives rise to future economic benefits(it enhances the performance of the factories). This is **capitalised and depreciated over 20 years** (the average useful life of the factories).

(2) Unwinding of the discount (see working)	£ 6,810,000

This is reported as a finance **cost**.

WORKING

	£'000
Provision at 1 July 20X0	85,250
Expenditure on 30 June 20X1	(30,000)
Unwinding of discount (balancing figure)	6,810
Provision at 30 June 20X1	62,060

Alternative calculation

	£'000
Expenditure on:	
30 June 20X1 (30,000 – 27,780)	2,220
30 June 20X2 (27,780 – 25,710)	2,070
30 June 20X3 (34,280 – 31,760)	2,520
	6,810

1.12.1 Principles for risk reporting in the annual report

In 2011 the ICAEW Financial Reporting Faculty produced a report entitled *Reporting Business Risks: Meeting Expectations* which sets out seven principles for better risk reporting. The principles aim for more useful information about risk, assisting investors and other users of corporate reports to form their own judgements. The seven principles are as follows:

(a) Tell users what they need to know, so that they can make their own assessment.

(b) Focus on quantitative rather than qualitative (descriptive) information.

(c) Information on risk should also be integrated with descriptions of business models, forward- looking disclosures, discussion of past performance, and financial reporting.

(d) Many risks stay the same, while others are highly variable and need more frequent updates. The internet, rather than the annual report, might be the best place for such information.

(e) Lists of principal risks should be short, so that they can be fully understood.

(f) Highlight current concerns. It is likely to be of interest to users to know what risks are currently most discussed within a firm.

(g) Review risk experience. Companies should review their experience of risk. What went wrong in the reporting period? What lessons have been learnt? How does experience match up with the risks that were previously reported?

Context example: Infosys – disclosure of key risks

In its 2016–17 annual report, Infosys, an Indian multinational corporation that provides consulting, information technology and outsourcing services, describes its risk management framework.

"Our industry and company are in significant transformation, and this has naturally resulted in heightening of risks related to strategic choices, strategy execution along with traditional operational and compliance related risks."

The following risk categories are identified:

Strategy

Risks inherent to the industry and competitiveness are analysed and mitigated through strategic choices of target markets, market offerings, business models and the talent base. Potential risks to the long-term scalability and sustainability of the organisation are also analysed and mitigated – for example, societal risks relating to the impact of strategy on the environment, local communities, and conservation of essential resources.

Operational

Risks arising out of internal and external factors affecting policies, procedures, people and systems in support functions which impact service delivery, compromise core values or are not in accordance with generally accepted business practices – for example, risks of business activity disruptions due to natural calamities, terrorist attacks or war or regional conflicts, or disruptions in telecommunications, system failures, virus attacks or breaches of cyber security.

Legal and compliance

Risks arising out of threats posed to financial, organisational, or reputational standing resulting from violations or non-conformance with laws, regulations, codes of conduct or organisational prescribed practices or contractual compliances – for example, risks of potential litigations, breach of contractual agreement, noncompliance with regulations, potential risk arising out of major regulatory/geo- political changes, potential risk arising out of strategic or business or operational decisions.

Later in this chapter, we shall examine the ways in which Infosys managed these risks.

1.12.2 Risk assurance

Changes in the external environment (eg, new regulations; development of new technologies) mean that organisations could face a changing – and increasingly complex – risk environment.

In turn, one of the challenges this presents for boards is making sure they identify the key risks facing their business, and have those risks under control. This could be particularly important in the context of cyber risks, hacking and data breaches where, in line with GDPR requirements, businesses need to be able to demonstrate they have appropriate safeguards in place if a data breach should occur.

An important implication of this is whether a board has adequately assessed the risks its company faces. Potentially, an additional 'risk' could be that a board's assumptions about the risk a company faces do not accurately reflect the risk realities.

In this respect, independent assessment – either by specialist internal auditors, or external advisors – could be very valuable: providing comfort that the board has a complete view of the risks relevant to its business. Having this complete view of the risks helps to ensure that the board is then in a good position to develop appropriate risk mitigation strategies.

2 Enterprise risk management

Section overview

- Enterprise risk management provides a coherent framework for organisations to deal with risk, based on such components as internal environment, strategy- and objective-setting and event identification.
- The framework is designed to identify potential events that may affect the entity and manage risks to be within its risk appetite.

2.1 Nature of enterprise risk management

Definition

Enterprise risk management (ERM): 'The culture, capabilities, and practices that organisations integrate with strategy-setting and apply when they carry out that strategy, with the purpose of managing risk in creating, preserving and realising value.'

(COSO, (2017) Executive Summary: Enterprise Risk Management – Integrating with Strategy and Performance.)

The Committee of Sponsoring Organisations of the Treadway Commission (COSO) is one of the global leaders in developing guidance on risk management and internal controls, designed to improve organisational performance and governance.

In 2004 COSO published its *Enterprise Risk Management – Integrated Framework*, and the underling logic of that framework was that value is maximised when management sets strategy and objectives to strike an optimal balance between growth and return goals and related risks, and efficiently and effectively deploys resources in pursuit of the entity's objectives.

In 2017, COSO published a revised guidance document *Enterprise Risk Management – Integrating with Strategy and Performance* which provides greater insight into the links between strategy, risk and performance. In particular, the revised guidance highlights the need for organisations to consider risk in the strategy-setting process, as well as considering the ways risks could affect an organisation's ability to deliver a strategy successfully.

Traditionally, organisations have viewed enterprise risk management as a way of identifying, assessing and managing risks and threats to their existing strategies. This approach focuses primarily on managing downside risk (threats to executing a strategy successfully). However, COSO highlights that enterprise risk management (ERM) potentially has greater value to organisations through the way it can enhance strategy selection.

Choosing a strategy requires structured decision-making that analyses the potential risks involved in that strategy. As such, ERM can play a very important role in helping organisations deliver value to their stakeholders – by ensuring that management evaluates alternative strategies properly before choosing one. For example, does management understand the risks and opportunities presented by different strategic options? Does the organisation have the resources and capabilities to be able to implement a strategy successfully?

As COSO's definition suggests, one of the key purposes of ERM is to help entities to actively manage risk to acceptable levels in order to achieve objectives and to deliver value.

Every decision an organisation takes either increases, preserves or erodes value. Equally, though, risk is integral to the pursuit of value, and value is a function of risk and return. Consequently, companies shouldn't try to eliminate risk completely (because doing so will prevent them from seizing opportunities which enhance value). Instead they need to manage risk exposure across all of their operations so that they undertake the 'right degree' of the 'right kinds' of risk to pursue their strategy goals effectively.

2.2 COSO's ERM Framework

COSO's ERM Framework is a set of 20 principles, which represent the things an organisation should do as part of its ERM practices. These principles are organised into five groups ('components'):

- governance and culture
- strategy and objective-setting
- performance
- review and revision
- information, communication and reporting

2.2.1 The Components and Principles of COSO's ERM Framework Governance and culture

Governance and culture together form the basis for all the other components of ERM. Governance

sets the organisation's tone, including reinforcing the importance of ERM and establishing oversight responsibility for it.

Culture encompasses an organisation's ethical values and desired behaviours, as well as an organisation's understanding of risk. An organisation's culture is typically reflected in its decision- making.

(a) **Exercises board risk oversight** – The board of directors provides oversight of the strategy, for example, reviewing management's proposed strategies and risk appetite to ensure they align with the organisation's mission and core values.

(b) **Establishes operating structures** – The organisation establishes appropriate operating structures in the pursuit of its strategy and business objectives.

(c) **Defines desired culture** – The organisation defines the desired behaviours that characterise its desired culture.

(d) **Demonstrates commitment to core values** – Where the organisation demonstrates a commitment to its core values then this will generally pervade throughout all decision making, improving ethical values and risk management.

(e) **Attracts, develops and retains capable individuals** – The organisation is committed to building human capital, in alignment with its strategy and business objectives.

Strategy and objective-setting

ERM is integrated into an organisation's strategic plans through the process of setting its strategy and business objectives. By gaining an understanding of business context, an organisation can gain insight into internal and external factors (eg, strengths, weaknesses, opportunities, threats) and their impact on risk. An organisation sets its risk appetite in conjunction with setting its strategy. Business objectives allow strategy to be put into practice, and to shape the organisation's day-to-day operations and priorities.

(f) **Analyses business context** – The organisation considers the potential effects of the internal and external environment on its risk profile.

(g) **Defines risk appetite** – The organisation defines risk appetite in the context of creating, preserving and realising value.

(h) **Evaluates alternative strategies** – The organisation evaluates alternative strategies and their potential impact on its risk profile. (The suitability of potential strategies could be influenced by the organisation's risk appetite.)

(i) **Formulates business objectives** – The organisation considers risk while establishing the business objectives, at various levels, that align and support strategy.

Performance

An organisation needs to identify and assess the risks that may affect its ability to achieve its strategy and business objectives. Risks should be prioritised according to their severity, and considering the organisation's risk appetite. The organisation then needs to select appropriate risk responses. In this way, the organisation develops a portfolio view of the amount of risk it has assumed in the pursuit of its strategy and business objectives. The results of this process are reported to key risk stakeholders.

(j) **Identifies risk** – The organisation identifies risk that affects the performance of strategy and business objectives.

(k) **Assesses severity of risk** – An assessment of the severity of each risk will help define a suitable response to each risk.

(l) **Prioritises risks** – The organisation prioritises risks as a basis for selecting responses to risks.

(m) **Implements risk responses** – The organisation identifies and selects appropriate risk responses.

(n) **Develops portfolio view** – The organisation develops and maintains a comprehensive view of all risks and how they could collectively impact across the business.

Review and revision

An organisation needs to review its performance in order to consider how well the ERM components are functioning, over time and in the light of substantial changes (for example, changes in the business environment). The organisation also needs to consider what revisions may be needed to its strategy and business objectives as a result of the changes, for example investing in new business areas, or scaling back its operations in other areas.

(o) **Assesses substantial change** – The organisation identifies and assesses changes that may substantially affect its strategy and business objectives.

(p) **Reviews risk and performance** – The organisation understands the relationship between risk and future performance so it can take preventative steps to avoid specific scenarios.

(q) **Pursues improvement in enterprise risk management** – An objective of continuous improvement to enterprise risk management improves the organisation's agility to respond to risk events.

Information, communication and reporting

ERM requires a continual process of obtaining and sharing necessary information – from internal and external sources – which flows up, down and across the organisation.

(r) **Leverages information and technology** – The organisation leverages its information systems and technology to capture, process and manage data and information to support ERM.

(s) **Communicates risk information** – The organisation uses communication channels to support ERM by sharing information.

(t) **Reports on risk, culture and performance** – The organisation reports on risk, culture and performance at multiple levels and across the entity.

2.3 Benefits of ERM

COSO's ERM Framework document (2017) highlights the following benefits that organisations can gain from integrating enterprise risk management across their entities. These benefits highlight the fact that risk should not be viewed solely as a constraint or challenge to setting and carrying out a strategy. Instead, the way an organisation responds to challenges could be a source of strategic opportunities and ways for it to differentiate itself from its competitors and achieve a competitive advantage over them.

Increase the range of opportunities. By considering all reasonable possibilities – both positive and negative aspects of risk – management can identify new opportunities, as well as challenges associated with current opportunities.

For example, a food company identified that its primary consumers were becoming increasingly health conscious and changing their diet. This change indicated a potential decline in future demand for the company's current products. In response, management identified ways to develop new products and make existing ones healthier, which allowed the company to maintain revenue from existing customers (preserving value) as well as creating additional revenue by appealing to a wider customer base (creating value).

Identify and manage risk entity-wide. Every organisation faces a number of risks, that can affect different parts of the organisation. Sometimes, a risk can emanate from one part of an organisation, but have an effect on another part. However, by looking across the organisation as a whole, management can identify and manage these risks to help sustain and improve performance.

Increase positive outcomes and advantage while reducing negative surprises. ERM helps an organisation to improve its ability to identify risks and establish appropriate responses, thereby reducing negative surprises (and their related costs or losses) and allowing the organisation to benefit from advantageous developments.

Having discussions about alternatives and possibilities doesn't mean that an organisation won't face challenges and threats, but it should mean the organisation is less surprised by them.

Reduce performance variability. The challenge for some companies has less to do with surprises and more to do with variability in performance. Performing significantly ahead of schedule or beyond expectations, can cause problems just as performing below expectations does.

For example, a public transportation system can aim for better 'on-time' performance, but if a train departs 10 minutes early this could cause greater problems for passengers than if it departs 10 minutes late (because it could mean passengers miss the train). To manage such variability, transit schedulers build natural pauses into the timetable.

In the same way, ERM allows organisations to anticipate risks of over- or under-performance and take action to minimise disruption.

Improve resource deployment. Having information about risks (and which risks are most important) allows an organisation to assess resource needs and enhance resource allocation.

For example, a gas distribution company recognised that its ageing infrastructure increases the risk of a gas leak occurring. By monitoring trends in gas leak-related data, the company was able to assess the areas of greatest risk across its distribution network. Management subsequently developed a plan to replace worn-out infrastructure, and repair those sections that had useful life remaining. This approach allowed the company to maintain the integrity of the infrastructure while spreading the demand for resources over a longer period of time.

Having a greater focus on resources should mean an organisation uses its resources – money, people, time etc – more efficiently, and in turn this should improve its ability to generate value for its stakeholders.

Enhance resource resilience. An organisation's medium- and long-term viability depends on its ability to anticipate and respond to change, not only to survive but also to evolve and thrive (as the food company did in response to concerns about consumers' changing diets). This ability to respond effectively to change becomes increasingly important as the pace of change accelerates and business complexity increases.

2.4 Risk architecture

In a slightly different framework to that of ERM, the IFAC argued that developing a risk architecture is not just a response to risk but also marks an organisational shift, changing the way the organisation:

- organises itself
- assigns accountability
- builds risk management as a core competence
- implements continuous, real-time risk management

Best practice, the IFAC argued, is to develop a highly integrated approach to risk management, using a common language, shared tools and techniques and periodic assessments of the risk profile for the entire organisation. Integration is particularly important when most units have **many risks in common**, and when there is **significant interdependency** between units. It is vital when managers are trying to achieve a **shared corporate vision**.

The risk architecture developed by the IFAC has eight components:

- acceptance of a risk management framework
- commitment from executives
- establishment of a risk response strategy

- assignment of responsibility for risk management process
- resourcing
- communication and training
- reinforcing risk cultures through human resources mechanisms
- monitoring of the risk management process

The IFAC identified four components of risk management:

- **Structure** – to facilitate the identification and communication of risk
- **Resources** – sufficient to support implementation
- **Culture** – reinforcing decision-making processes
- **Tools and techniques** – developed to enable organisation-wide management of risk

2.5 The Risk Guidance

The UK Turnbull report aimed to provide guidance on risk management and control systems to supplement the outlines set out in the UK Corporate Governance Code. Turnbull emphasised the importance of the **evolution** of a system of internal control to take account of new and emerging risks, control failures, market expectations or changes in the company's circumstances or business

objectives. The Turnbull guidance is now contained in the 2014 FRC publication *Guidance on Risk Management, Internal Control, and Related Financial and Business Reporting*.

Internal Control, and Related Financial and Business Reporting (the Risk Guidance). The guidance is primarily directed at companies applying the UK Corporate Governance Code.

2.5.1 Objectives of the Risk Guidance

The objectives of the Risk Guidance are to encourage companies to adopt a **risk-based approach to establishing a system of internal control**, ie, to manage and control risk appropriately rather than eliminate it. This should enable companies to achieve their business objectives while being responsive to the risks they face.

The Risk Guidance emphasises the importance of an embedded and ongoing process of identifying and responding to risks. Thus a company must:

- establish **business objectives**
- identify the **key risks** associated with these
- agree the **controls** to address the risks
- set up a **system to implement the decision**, including regular feedback

The guidance aims to reflect sound business practice, as well as to help companies comply with the internal control requirements of the Code.

2.5.2 Risk management responsibilities of directors, management and employees

The responsibilities of directors, management and employees to implement the Risk Guidance are as follows.

Directors

- Ensure the design and implementation of appropriate risk management and internal control systems.

- Determine the nature and extent of the principal risks faced and the organisation's risk appetite.
- Ensure that appropriate culture and reward systems have been embedded throughout the organisation.
- Agree how the principal risks should be managed or mitigated.
- Monitor and review the risk management and internal control systems, and the management's process of monitoring and reviewing.
- Ensure sound internal and external information and communication processes are in place and communicate with external stakeholders on risk management and internal control.

The Risk Guidance sees a close relationship between the setting of a company's risk appetite, its risk management and internal control, and how it approaches issues of going concern and longer term sustainability. Therefore, as part of the responsibilities outlined above, the board has responsibility for determining the organisation's going concern XE "Going concern" status and making related disclosures in the financial statements.

Management

- Implement board policies on risk and control.
- Provide the board with timely information.
- Establish clear internal responsibilities and accountabilities at all levels of the organisation.

Employees

- Acquire the necessary knowledge, skills and authority to establish, operate and monitor the system of internal controls.

2.5.3 Going concern: viability statement in UK

The 2018 UK Corporate Governance Code contains a provision requiring a 'viability statement':

"Taking account of the company's current position and principal risks, the board should explain in the annual report how it has assessed the prospects of the company, over what period it has done so and why it considers that period to be appropriate. The board should state whether it has a reasonable expectation that the company will be able to continue in operation and meet

its liabilities as they fall due over the period of their assessment, drawing attention to any qualifications or assumptions as necessary." [Provision 31]

The guidance on the viability statement suggests that the period selected often appears to be based on a company's medium-term business plan. However, the nature of the business, its stage of development, the industry it operates in should all be taken into account when determining an appropriate period, as well as the company's investment and planning periods.

The length of this period will be for the directors to decide. However, the guidance also notes that it may be useful for companies to discuss with investors their information needs to help inform the period selected.

More generally, however, viability statements serve to reiterate the point that the long-term success of a company is dependent on the sustainability of its business model and its management of risk. As the guidance on the viability statement points out: 'Decisions made by the board will have a direct impact on the viability of the company, over differing time periods.'

2.6 Risk resourcing

Whatever the division of responsibilities for risk management, the organisation needs to think carefully about how risk management is resourced; sufficient resources will be required to implement **and** monitor risk management (including the resources required to obtain the necessary information). Consideration will be given not only to the **expenditure** required, but also to the human resources in terms of **skills and experience**.

3 Risk management responsibilities

Section overview

- This section discusses the underlying features of risk and control systems.
- Consideration of risk issues should be an integral part of board agendas.
- The board's risk committee and the risk management function are also key players in managing risk.
- There are various methods that can be used to promote awareness of risk and control issues within a company.
- It is important that risk management and control systems are embedded within business processes.

3.1 Board responsibilities

Ownership of the risk management and internal control system is a vital part of the chief executive's overall responsibility for the company. The chief executive must consider, in particular, the **risk and control environment**.

As well as explicit responsibilities, the board's role in '**setting the tone'** and demonstrating clearly that the directors respect the need for effective control systems is a very important part of risk management. This includes respecting the need for separation of duties between managers carrying out executive duties, and non-executive directors and staff responsible for monitoring them.

3.1.1 Review of board's role

In 2010, the Financial Reporting Council undertook a review of how boards were approaching their responsibilities.

The main points arising from the consultation included the following:

- Boards should aim for **better risk taking**, but this does not necessarily mean less risk taking, as risk taking is essential to entrepreneurship.
- **Different board committees** are appropriate for different industries. A risk committee is appropriate for companies in the financial sector. Separate committees are commonly used by companies in the pharmaceutical and extractive industries, which are exposed to significant safety, environmental or regulatory risks. Examples in these industries include compliance committees and corporate responsibility committees.
- Responsibility for monitoring internal controls and risk management could be delegated to board committees, but the whole board should retain strategic responsibility for risk

decision-taking. Boards need to understand how risk exposure might change as a result of changes in strategy and the operating environment.

- Boards need to focus on individual risks capable of undermining the strategy or long-term viability of the company or damaging its reputation. Reputation risk requires greater attention, partly because failures can be publicised widely and quickly in the global information environment. Boards need to have robust crisis management plans.
- Boards should not just focus on net or residual risk, but also need to understand exposure to the combination of risks faced, before risk management policies are implemented.
- It could be difficult to decide how much information about risks boards need and, in particular, when a particular risk should be brought to the board's attention.
- Organisations need transparency and clear lines of reporting and accountability.
- Investors are increasingly seeking more meaningful reporting on risk; for example, an integrated discussion of business model, strategy, key risks and mitigation. Investors also want to know how companies' exposure to risk is changing.

3.2 Risk committee

Boards need to consider whether there should be a separate board committee, with responsibility for monitoring and supervising risk identification and management. If the board doesn't have a separate committee, under the UK Corporate Governance Code, the audit committee will be responsible for risk management.

Consideration of risk certainly falls within the remit of the audit committee. However, there are a number of arguments in favour of having a separate risk committee.

(a) A risk management committee can be **staffed by executive directors**, whereas an audit committee under corporate governance best practice should be staffed by non-executive directors. However, if there are doubts about the competence and good faith of executive management, it will be more appropriate for the risk committee to be staffed by non-executive directors.

(b) As a key role of the audit committee will be to liaise with the external auditors, much of their time could be **focused on** financial **risks.**

(c) A risk committee can take the lead in **driving changes in practice**, whereas an audit committee will have a largely monitoring role, checking that a satisfactory risk management policy exists.

Having a separate risk committee can aid the board in its responsibility for ensuring that adequate risk management systems are in place. The application of risk management policies will then be the responsibility of operational managers, and perhaps specialist risk management personnel.

3.2.1 Risk committees in the financial sector in UK

The UK Walker Report (published in 2009) recommended that FTSE100 bank or life insurance companies should establish a risk committee. Reasons for this recommendation included the need to avoid overburdening the audit committee, to draw a distinction between the largely backward- looking focus of the audit committee and the forward-looking focus of determining risk appetite; and from this, monitoring appropriate limits on exposures and concentrations. The committee should have a majority of non-executive directors.

Walker recommended that the committee should concentrate on the fundamental prudential risks for the institution: leverage, liquidity risk, interest rate and currency risk, credit/counterparty risks and other market risks. It should advise the board on current risk exposures and future risk strategy, and the establishment of a supportive risk culture.

The committee should regularly review and approve the measures and methodology used to assess risk. A variety of measures should be used. The risk committee should also advise the remuneration

committee on risk weightings to be applied to performance objectives incorporated within the incentive structure for executive directors.

3.3 Risk management personnel

3.3.1 Risk manager

The risk manager will need technical skills in **credit, market and operational risk**. Leadership and persuasive skills are likely to be necessary to overcome resistance from those who believe that risk management is an attempt to stifle initiative. The risk manager is typically responsible for:

Providing the overall leadership, vision and direction for enterprise risk management (ERM).

Establishing an integrated risk management framework for all aspects of risk across the organisation, integrating ERM with other business planning and management activities, and framing authority and accountability for ERM in business units.

Promoting an ERM competence throughout the entity, including facilitating the development of technical ERM expertise, helping managers align risk responses with the entity's risk tolerances and developing appropriate controls.

Developing risk management policies, including the quantification of management's risk appetite through specific risk limits, defining roles and responsibilities, ensuring compliance with codes, regulations and statutes, and participating in setting goals for implementation.

Establishing a common risk management language that includes common measures around likelihood and impact, and common risk categories. Developing the analytical systems and data management capabilities to support the risk management programme.

Implementing a set of risk indicators and reports including losses and incidents, key risk exposures and early warning indicators. Facilitating managers' development of reporting protocols, including quantitative and qualitative thresholds, and monitoring the reporting process.

Dealing with insurance companies: An important task because of increased premium costs, restrictions in the cover available (will the risks be excluded from cover?) and the need for negotiations with insurance companies if claims arise. If insurers require it, demonstrating that the organisation is taking steps to actively manage its risks. Arranging financing schemes such as self-insurance or captive insurance.

Allocating economic capital to business activities based on risk, and optimising the company's risk portfolio through business activities and risk transfer strategies.

Reporting to the chief executive on progress and recommending action as needed. Communicating the company's risk profile to key stakeholders such as the board of directors, regulators, stock analysts, rating agencies and business partners.

3.3.2 Risk management function

Larger companies may have a bigger risk management function whose responsibilities are wider than a single risk manager. The Institute of Risk Management's *Risk Management Standard* lists the main responsibilities of the risk management function:

- setting policy and strategy for risk management
- primary champion of risk management at a strategic and operational level
- building a risk-aware culture within the organisation, including appropriate education
- establishing internal risk policy and structures for business units
- designing and reviewing processes for risk management
- coordinating the various functional activities which advise on risk management issues within an organisation
- developing risk response processes, including contingency and business continuity programmes
- preparing reports on risks for the board and stakeholders

3.3.3 Assurance procedures

The assurance work carried out by internal audit will play a significant part in the organisation's risk management processes, internal audit being required to assess and advise on how risks are countered. Internal auditors will be concerned to see that managers have made adequate responses

to risks, have designed robust risk management processes and that these mitigate the risks. This approach can be refined to focus on particular areas, for example start-ups and other future- orientated activities, where core controls have not developed and which thus carry higher risks.

The starting point for a risk audit is to **identify business objectives** and the **risks** that may prevent the organisation from achieving those objectives. Internal audit's work will be influenced by the organisation's **appetite** for bearing risks. Internal audit will assess:

- the **adequacy of the risk management and response processes** for identifying, assessing, managing and reporting on risk
- the risk management and control **culture**
- the **appropriateness of internal controls** in operation to **limit risks**
- the **operation and effectiveness** of the **risk assessment and management processes**, including the internal controls, with a focus on processes aimed at risks that are classified as key risks
- the reliability of reporting on risks and controls

The areas that auditors will concentrate on will depend on the **scope** and **priority** of the assignment and the **risks identified**. Where the risk management framework is insufficient, auditors will have to rely on their own **risk assessment** and will focus on **recommending an appropriate framework**.

Where a framework for risk management and control is embedded in operations, auditors will aim to use **management's assessment of risks** and concentrate on **auditing the risk management processes**.

A key part of internal audit's role in control systems is to provide feedback that influences the **design and operation** of **internal control systems**. Internal audit recommendations need to be seen in the context of the organisation's **strategic objectives** and **risk appetite**.

3.4 Procedures for embedding risk awareness

Employees cannot be expected to avoid risks if they are not aware that they exist in the first place. Embedding a risk management frame of mind into an organisation's culture requires top-down communications on what the risk philosophy is and what is expected of the organisation's employees.

Context example: Internal communications programme

Here is an example of an internal communications programme slightly adapted from an example in the original (2004) COSO framework.

Internal communications programme

- Management discusses risks and associated risk responses in regular briefings with employees.
- Management regularly communicates entity-wide risks in employee communications such as newsletters, or via the intranet.
- ERM policies, standards and procedures are made readily available to employees, along with clear statements requiring compliance.
- Management requires employees to consult with others across the organisation as appropriate when new events are identified.
- Induction sessions for new employees include information and literature on the company's risk management philosophy and ERM programme.
- Existing employees are required to take workshops and/or refresher courses on the organisation's ERM initiatives.
- The risk management philosophy is reinforced in regular and ongoing internal communication programmes and through specific communication programmes to reinforce tenets of the company's culture.

3.4.1 Human resource procedures

There are also organisational measures which can be taken to spread ownership of risk management.

(a) Management need to make sure that staff receive clear and consistent messages that **managing risk is part of all employees' daily responsibilities**, and is very important to an organisation's success and survival.

(b) Personnel should understand the need to **resist pressure from superiors** to participate in improper activities, and channels outside normal reporting lines should be available to permit reporting such circumstances.

(c) Managers should **provide appropriate incentives**. This may entail setting performance targets and tying results to performance pay.

3.4.2 Training

Aside from practical matters like showing employees which buttons to press or how to find out the information they need, training should include **explanations** of why things should be done in the way that the trainer recommends. If employees are asked to carry out a new type of check but are not told why, there is every chance that they won't bother to do it, because they don't understand its relevance. Instead, it will just seem to mean more work for them and to slow up the process for everyone.

3.4.3 Risk policy statement

Organisations ought to have a statement of risk policy and strategy that is distributed to all managers and staff.

3.5 Control systems

The 2014 FRC guidance on risk management emphasises the importance of control systems in effectively managing risks. Internal control consists of the policies, processes, tasks, behaviours and other aspects of a company that when taken together:

(a) **Facilitate its effective and efficient operation** by enabling it to respond appropriately to significant business, operational, financial, compliance and other risks to achieving the company's objectives. This includes the **safeguarding of assets** from inappropriate use or from loss and fraud and ensuring that **liabilities are identified and managed**.

(b) **Help ensure the quality of internal and external reporting**. This requires the maintenance of proper records and processes that generate a flow of timely, relevant and reliable information from within and outside the organisation.

(c) **Help ensure compliance with applicable laws and regulations**, and also with internal policies with respect to the conduct of business.

Internal control systems should:

- be embedded in the operations of the company and form part of its culture
- be capable of responding quickly to evolving risks within the business
- include procedures for reporting immediately to management, significant control failings and weaknesses, together with control action being taken

The system should include control activities, information and communication processes and methods for monitoring the continued effectiveness of the system of internal control. A sound system of internal control reduces, but does not eliminate, the possibilities of losses arising from poorly judged decisions, human error, deliberate circumvention of controls, management override of controls and unforeseeable circumstances.

Context example: Three lines of defence model

The three lines of defence model is one approach to safeguarding the internal control framework.

First line of defence

This describes the **controls** an organisation has in place to deal with its day to day business. Controls are designed into systems and processes and compliance with process should ensure an adequate control environment.

Second line of defence

This describes the **committees and functions** that are in place to provide an oversight of the effective operation of the internal control framework. The effectiveness of the second line is determined by the oversight committee structure, their terms of reference, the competence of the members and the

quality of the management information and reports that are considered by these oversight committees.

This second line is reinforced by the advisory and monitoring functions of risk management and compliance. Risk management defines the financial and operational risk assessment processes for the business; maintains the risk registers; and undertakes regular reviews of these risks. Compliance advises on all areas of regulatory principles, rules and guidance.

These functions report on their work undertaken and significant findings to the appropriate executive risk oversight committees in the second line.

Third line of defence

This describes the **independent assurance** provided by the **board audit committee**, a committee of non-executive directors chaired by the senior independent director, and the **internal audit function** that reports to that committee.

Internal audit undertakes a programme of risk-based audits covering all aspects of both the first and second lines of defence. Internal audit may well take some assurance from the work of the second line functions and reduce or tailor its checking of the first line.

4 Stakeholders and risk

Section overview

Organisations' attitudes to risks will be influenced by the priorities of their stakeholders and how much influence stakeholders have. Stakeholders that have significant influence may try to prevent an organisation bearing certain risks.

We discussed generally in Strategic analysis how stakeholders can influence objectives and strategies. This section focuses on the impacts that stakeholders can have on the strategies that businesses develop for managing their risks.

Businesses have to be aware of stakeholder responses to risk. They may take actions, or events could occur, that may generate a response from stakeholders. This response could have an adverse effect on the business.

To assess the importance of stakeholder responses to risk, the organisation needs to determine how much leverage its stakeholders have over it.

4.1 Shareholders

Shareholders can affect the market price of shares by selling them. They also have the power to remove management. It would appear that the key issue for management to determine is whether shareholders:

- **Prefer a steady income from dividends**, in which case they will be alert to threats to the profits that generate the dividend income, such as investment in projects that are unlikely to yield profits in the short term.
- **Are more concerned with long-term capital gains**, in which case they may be less concerned about a short period of poor performance, and more worried about threats to long-term survival that could diminish or wipe out their investment.

However, the position is complicated by the different risk tolerances of shareholders themselves. Some shareholders will, for the chances of a higher level of income, be prepared to bear greater risks that their investments will not achieve that level of income. Therefore, some argue that because the shares of listed companies can be freely bought and sold on stock exchanges, if a company's risk profile changes, its existing shareholders will sell their shares, but the shares will be bought by new investors who prefer the company's new risk profile. The theory runs that it should not matter to the company who its investors are.

However, this makes the assumption that the investments of all shareholders are actively managed and that shareholders seek to reduce their own risks by diversification. These are not necessarily true in practice. It is also unlikely that the directors will be indifferent to who the company's shareholders are.

Shareholders' risk tolerance may depend on their views of the organisation's risk management systems, how effective they are and how effective they should be. Shareholder sensitivity to this will increase the pressures on management to ensure that a risk culture is **embedded** within the organisation.

4.2 Debt providers and creditors

Debt providers are most concerned about threats to the amount the organisation owes. They can take various actions, with potentially serious consequences such as denial of credit, higher interest charges and, ultimately, putting the company into liquidation.

When an organisation is seeking credit or loan finance, it will obviously consider what action creditors will take if it does default. However, it also needs to consider the ways in which debt finance providers can limit the risks of default by, for example, requiring companies to meet certain financial criteria, provide security in the form of assets that can't be sold without the creditors' agreement, or personal guarantees from directors.

These mechanisms may have a significant impact on the development of an organisation's risk strategy. There may be a conflict between strategies that are suitable from the viewpoint of the business's long-term strategic objectives, but are unacceptable to existing providers of finance because of threats to cash flows, or are not feasible because finance suppliers will not make finance available for them, or will do so only on terms that are unduly restrictive.

4.3 Employees

Employees will be concerned about threats to their job prospects (money, promotion, benefits and satisfaction) and, ultimately, threats to the jobs themselves. If the business fails, the impact on employees will be great. However, if the business performs poorly, the impact on employees may not be so great if their jobs are not threatened. Employees will also be concerned about threats to their personal wellbeing, particularly health and safety issues.

The variety of actions employees can take include pursuit of their own goals rather than shareholder interests, industrial action, refusal to relocate or resignation.

Risks of adverse reactions from employees will have to be managed in a variety of ways:

(a) Legislation requires that some risks, principally threats to the person, should be avoided.

(b) Businesses can limit employee discontent by good pay, conditions etc.

(c) Businesses can take out insurance against key employees leaving. However, they may decide to accept that some employees will be unhappy but believe the company will not suffer a significant loss if they leave.

4.4 Customers and suppliers

Suppliers can provide (possibly unwillingly) short-term finance. As well as being concerned with the possibility of not being paid, suppliers will be concerned about the **risk of making unprofitable sales**. Customers will be concerned with **threats to their getting the goods or services** that they have been promised, or not getting the value from the goods or services that they expect.

Suppliers can respond to risk of non-payment by refusing credit. Customers can shop elsewhere. The impact of customer-supplier attitudes will also depend on how much the organisation wants to **build long-term relationships with them**. A desire to build relationships implies involvement of the staff that are responsible for building those relationships in the risk management process. It may also imply a greater degree of disclosure about risks that may arise to these long-term partners in order to maintain the relationship of trust.

4.5 The wider community

Governments, regulatory and other bodies will be particularly concerned with risks where the organisation does not act as a **good corporate citizen**, implementing, for example, poor employment or environmental policies. A number of the resulting actions that might be taken could have serious consequences. Government can impose tax increases or regulation or take legal action. Pressure group tactics can include publicity, direct action, political sabotage or campaigning.

Although the consequences can be serious, the risks that the wider community are concerned about are rather less easy to predict than for other stakeholders, being governed by varying political pressures. This emphasises the need for careful monitoring of changing attitudes and likely external responses to the organisation's actions as part of the risk management process.

Professional skills focus: Concluding, recommending and communicating

When formulating recommendations to deal with risk it is important to consider the reaction of different stakeholder groups. Organisations do not operate in isolation so your recommendations should be pragmatic taking into account the influence of powerful stakeholder groups on any strategies that an organisation implements.

5 Risk assessment

Section overview

- This section covers a commonly used framework for assessing and managing risk.
- The initial stage will include establishing both the internal and external contexts, the risk criteria and the structure for risk analysis.
- Identifying the risks that the organisation faces should be a continuous process. As the business environment changes, so do the risks faced by organisations operating in that environment.
- The fundamental difficulty in assessing risk is determining how often this particular risk may occur. Information may not be available on all past events.
- The other main element of risk assessment is assessing the impact on the organisation if a risk materialises.
- For physical assets, quantification is often fairly straightforward. However, exposure of financial and intangible assets is more difficult to put a monetary figure on.
- Grouping of risks according to their likelihood and potential impact supports the establishment of priorities for risk mitigation.

- The individual risks that have been identified in different parts of the business must be consolidated (ie, aggregated) to establish the risk at the corporate level.

5.1 The risk management process

A commonly used framework for assessing and managing risk involves the following processes.

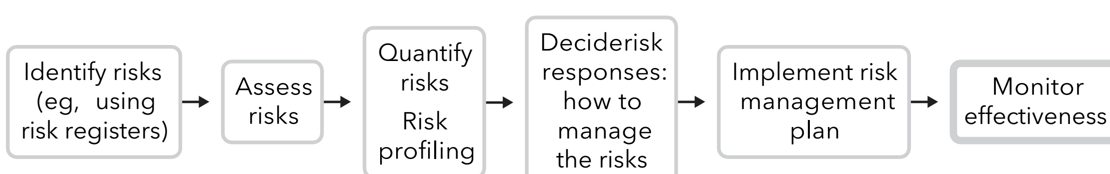
- establishing the context
- risk identification
- risk assessment
- risk quantification
- risk profiling
- risk consolidation
- risk responses

In real life, none of these processes are easy – what is considered to be a risk by some might not be seen as such by others, which can lead to disputes over which risks should be given priority.

Quantification of an item that is essentially subjective is never going to be straightforward – in itself, putting a value on different risks is a subjective process.

Having devised responses to risk (making decisions about how risks should be managed), the risk management plan should be implemented. Once implemented, there should be regular monitoring of the risk management system to check that it is working effectively, as planned.

Figure 7.2: The risk management process



5.2 Risk register

Organisations should have formal methods of collecting information on risk and response. A risk register **lists and prioritises the main risks** an organisation faces, and is used as the basis for decision-making on how to deal with risks. It acts as a basic component of the risk and control assessment process in order to record identified risks. The existence of a risk register illustrates that risks have been identified and to what activities they relate.

The risk register will typically include the following:

- description of the risk
- when the risk might occur
- the impact, assuming that the risk does occur
- an assessment of the risk's likelihood or probability of occurrence
- a priority rating or score, obtained from the impact and probability assessment

- the management's strategy as to how the risk will be addressed
- the containment strategy, defining what exactly will happen if the risk occurs

In compiling the risk register, the firm must describe the risk in a clear manner so that everyone in the firm who needs to be aware of the risk understands it, not just the person who is most directly involved in its management.

A risk register would take an individual event and state what the **loss of value** might be, should the risk occur, and then will apply an impact assessment to it.

Context example: Risk register

Consider, for example, a case of potential fraud where the risk impact might be assessed at say,

£5 million with a 15% chance of its occurrence in any one year. Multiplying these together (£5m × 15%) would give a severity of £0.75 million in any one year. Of course, this would not mean that the company would expect a loss of £5 million or even £0.75 million. The actual cost would be based on the distribution of losses. So the loss could be at least £0.25 million with a 75% likelihood, or up to

£2 million with a 25% likelihood.

Any assessments are based on actual knowledge from real loss events that have occurred, together with additional assessment made by management and risk specialists regarding the quality of the control environment, along with control and risk self-assessment key performance indicators.

The severity could be calculated by assessors who might be asked to choose from a number in the range of 1 to 10 for each of the risk issues that they are addressing. These expectation (or likelihood) levels would then be multiplied to come up with a severity rating. Hence, **expectation** multiplied by **impact** would deliver the severity figure.

The risk manager, or the person administering the risk register and the assessment, would be the person who would then take the different expectations and convert them into something more meaningful in terms of real values, rather than levels of severity. An expectation of 6 could equate to, say, 30% and an impact of 5 could equate to £10 million. This, then, would give the severity of £3 million ie, 30% of £10 million.

5.3 Establishing the context

Before any risk can actually be identified, the context within which that risk will be assessed must be established. For example, management may only be interested in identifying financial risks, which means that those responsible for gathering information will concentrate on that area of risk only.

5.3.1 Establishing the internal context

Risk is essentially the chance that an event will occur which will prevent the company from meeting its objectives. Therefore, in order to understand the risks, you must first identify the objectives. By doing so you will ensure that decisions taken to reduce risk still support the overall goals of the organisation, thus encouraging long-term and strategic thinking.

Context example: Owner-managed restaurant

A small restaurant employs a full-time chef, an apprentice chef and two waiters. Business is slow and cash flow is becoming a problem, so the owner decides that he will therefore have to let the apprentice chef and one of the waiters go.

Four months later, the restaurant wins a five-year contract to supply lunches to a local firm and business in general picks up, with the opening of a new office block in close proximity to the restaurant's premises. The restaurant owner was in the process of preparing for the new contract, having tendered for it several months before paying off the apprentice chef and the waiter, and was also aware of the imminent opening of the office block.

The owner then had problems of a different kind. The chef could not cope with both the contracted lunches and the general improvement in business, nor could the remaining waiter deal with a full restaurant on his own. The apprentice chef had already found alternative employment, as had the previous waiter. The owner was forced to take on a less experienced apprentice, who then had to be trained by the already overworked chef and another waiter, who was unfamiliar with the general operations of the restaurant.

In this context, the restaurant owner would have been better off trying to find an alternative means of dealing with what he must have known to be a temporary cash flow problem, rather than getting rid of staff in whose training time and money had already been invested.

When trying to establish the internal context, business owners should also consider such issues as:

- internal culture: are staff likely to be resistant to change?
- existing business capabilities, such as people, equipment and processes

5.3.2 Establishing the external context

The external context is the overall environment in which the business operates, including an understanding of the perceptions that clients or customers have of the business. This could take the form of a SWOT analysis. It should also cover such issues as external regulations that the business must comply with.

5.3.3 Establishing the risk management context

In order to correctly identify risks associated with a project, you must first define the project's limits, objectives and scope.

Context example: Accountancy body

Due to expansion of staff and necessary documentation, the student support and education departments of a professional accountancy body are moving into larger office premises. Before the move takes place, the head of administration, who is taking charge of the move, undertakes a risk assessment of the relocation.

The risk management context includes:

- the main objective: to move staff, furniture, equipment and documentation to the new premises with minimum disruption to student services and production of examination papers
- ensure the security and confidentiality of the examination papers held at the current premises which will be transferred in locked safes to the new location
- an overall timeframe (including planning and liaison with telephone companies) of three months
- a budget of £25,000 for the use of external relocation support

This risk management context provides sufficient information with which the head of administration can assess the risks associated with the relocation, particularly those that impact on the primary objective of minimising disruption to student services and the production of examination papers.

5.3.4 Developing risk criteria

This step allows the business to identify unacceptable levels of risk or, looking at it another way, to define acceptable levels of risk for a specific project. These risk levels can be more closely defined as the process progresses.

In the case study above, for example, it would be completely unacceptable for the confidentiality and security of the examination papers to be compromised, so this documentation must therefore be kept in locked safes and transported using professional safe movers.

5.3.5 Defining the structure for risk analysis

The final stage in the establishment of context is to define the structure for risk analysis. This involves isolating the risk categories that need to be managed, which can then be assessed individually. This will allow for greater depth and accuracy when identifying important risks.

5.4 Risk identification

No one can manage a risk without first being aware that it exists. Some knowledge of perils, what items they can affect and how, is helpful to improve awareness of whether **familiar risks** (potential sources and causes of loss) are present, and the extent to which they could harm a particular person or organisation. The risk manager should also keep an eye open for **unfamiliar risks** which may be present.

Actively identifying the risks before they crystallise makes it easier to think of methods that can be used to manage them.

Risk identification is a **continuous process**, so that new risks and changes affecting existing risks may be identified quickly and dealt with appropriately, before they can cause unacceptable losses.

5.4.1 Risk conditions

Means of identifying conditions leading to risks (potential sources of loss) include:

(a) **Physical inspection**, which will show up risks such as poor housekeeping (for example, rubbish left on floors, for people to slip on and to sustain fires)

(b) **Enquiries**, from which the frequency and extent of product quality controls and checks on new employees' references, for example, can be ascertained

(c) **Checking** a copy of every letter and memo issued in the organisation for early indications of major changes and new projects

(d) **Brainstorming** with representatives of different departments

(e) **Checklists** ensuring risk areas are not missed

(f) **Benchmarking** against other sections within the organisation or external experiences

5.4.2 Event identification

A key aspect of risk identification is identifying events that could affect the implementation of strategy or achievement of objectives.

Events analysis includes identification of:

(a) **External events** such as economic changes, political developments or technological advances

(b) **Internal events** such as equipment problems, human error or difficulties with products

(c) **Leading event indicators**. By monitoring data correlated to events, organisations identify the existence of conditions that could give rise to an event; for example, customers who have balances outstanding beyond a certain length of time being very likely to default on those balances.

(d) **Trends and root causes**. Once these have been identified, management may find that assessment and treatment of causes is a more effective solution than acting on individual events once they occur.

(e) **Escalation triggers**, certain events happening or levels being reached that require immediate action

(f) **Event interdependencies**, identifying how one event can trigger another and how events can occur concurrently. For example, a decision to defer investment in an improved distribution system might mean that downtime increases, and operating costs go up.

Once events have been identified, they can be classified horizontally across the whole organisation and vertically within operating units. By doing this, management can gain a better understanding of the interrelationships between events, gaining enhanced information as a basis for risk assessment.

5.4.3 Key risk indicators

COSO provides guidance on key risk indicators (KRIs), metrics that some organisations use to provide an early signal of increasing risk exposure. At their simplest, they can be **key ratios** that management uses as indications of evolving problems requiring actions. Sometimes they may be more elaborate, involving the aggregation of several risk indicators.

KRIs are derived from specific events or root causes that can prevent performance goals from being achieved. Examples include the introduction of a new product by a competitor, a strike at a supplier's plant, proposed changes in the regulatory environment and input-price changes. Importantly though, KRIs are measures designed to **identify changes to existing risks**. Therefore it is important to distinguish risk indicators from performance measures, which are typically retrospective in nature.

Context example: Key risk indicator

A government agency wants to retain competent staff. To support this aim, it has a target to maintain staff turnover rates at less than 5% per year.

A key risk indicator for the agency would be a percentage of staff eligible to retire within five years. Anything higher than 5% indicates a risk to the target.

A key performance indicator is the actual turnover, because this is based on historical performance, rather than providing an early signal of potential future risks.

The guidance points out that effective KRIs should be developed by risk managers and business unit managers working together. They should be developed in concert with strategic plans. Determining the frequency of reporting of KRIs will be important – operational management may need to see them in real time; senior management on a less frequent, aggregated basis.

The guidance highlights the following elements of well-designed KRIs:

- based on established practices or benchmarks
- developed consistently across the organisation
- provide an unambiguous and intuitive view of the highlighted risk
- allow for measurable comparisons across time and business units
- provide opportunities to assess the performance of risk owners on a timely basis
- consume resources effectively

5.5 Risk assessment

It is not always simple to forecast the financial effect of a possible disaster, as it is not until **after** a loss that extra expenses, inconveniences and loss of time can be recognised. Even then, it can be difficult to identify all of them.

Organisations will probably keep more detailed records of their activities and the unit costs involved, but it is unlikely that any organisation can predict the full cost of every loss that might befall it with certainty.

5.6 Risk quantification

Risks that require more analysis can be quantified, where possible results or losses and probabilities are calculated and distributions or confidence limits added on. From this exercise is derived the following key data to which the organisation could be exposed by a particular risk:

- average or expected result or loss
- frequency of losses
- chances of losses
- largest predictable loss

The risk manager must also be able to estimate the effects of each possible cause of loss, as some of the effects that they need to consider may not be insured against.

The likely frequency of losses from any particular cause can be predicted with some degree of confidence, from studying available records. This confidence margin can be improved by including the likely effects of changed circumstances in the calculation, once they are identified and quantified. Risk managers must therefore be aware of the possibility of the increase of an existing risk, or the introduction of a new risk, affecting the probability and/or possible frequency of losses from another cause.

Often, quantification of losses will not involve statistical techniques, but a simple single estimate of what would be lost if adverse events or circumstances occur. For example, if an accountancy firm had a client that generated a fixed fee each year, the loss would be their contribution (fees lost less labour and other variable costs saved).

Ultimately, the risk manager will need to know the frequency and magnitude of losses that could place the organisation in serious difficulty.

Professional skills focus: Structuring problems and solutions

Businesses are exposed to a wide range of risks and constantly have to make decisions about which risks to prioritise. In the exam you may be tested on your ability to identify risks within a scenario and to prioritise key issues in order to make the best use of an organisation's resources.

5.6.1 Exposure of physical assets

Exposures with physical assets may include:

- **total value of the assets**, for example, the value of items stolen from a safe
- **costs of repair** if, for example, an accident occurs
- **change of value of an asset**, for example, property depreciating in value because of a new airport development nearby
- **decrease in revenues**, for example, loss of rent through a rental property being unlettable for a period
- **costs of unused capacity**, costs incurred by spare capacity that is taken as a precaution but does not end up being used

5.6.2 Exposure of financial assets

While the risk of trading shares and most forms of debt might be that their values fall to zero, this is not necessarily true of futures (where losses could be unlimited) and options (whose losses are limited to the option premium). In addition, anyone who is exposed to loss as a **result of price rises** is, in theory, exposed to the risk of **infinite loss**, since prices could rise indefinitely.

5.6.3 Exposure of human assets

The most severe risk to employees is the risk of death or serious injury. The loss to the employee's family, for which the organisation may be liable, could be the **future value** of their **expected income stream**, mitigated by any benefits available but enhanced by other losses that arise as a result of death; for example, loss of any available tax allowance. Alternatively, it could be measured by the expenditure required to fulfil the **needs** of the deceased's dependent family. For less serious injuries, the costs of medical care may be the relevant figure.

Certain individuals may make a significant contribution to the office because of their knowledge, skills or business contacts. One measure of this loss will be the present value of the individual's contribution (attributable earnings less remuneration). Indirect costs may include the effect on other staff of the loss of the key person (decreased productivity or indeed the costs of their own departure).

If a director, partner or senior employee dies or departs, there may be costs of having to cope with the disruption, perhaps even including the costs of dissolution, if local law requires termination of a partnership on the departure of a single partner.

5.7 Risk profiling

This stage involves using the results of a risk assessment to group risks into risk families. One way of doing this is a likelihood/consequences matrix.

Note: The detailed entries in the matrix are illustrative only.

Figure 7.3: Likelihood/consequences matrix

Likelihood \ Consequences	Low	High
Low	Loss of suppliers	Loss of senior or specialist staff Loss of sales to competitor Loss of sales due to macroe conomic factors
High	Loss of lower level staff	Loss of key customers Failure of computer systems

This profile can then be used to set priorities for risk mitigation.

5.8 Risk consolidation

Risk that has been analysed or quantified at the division or subsidiary level needs to be aggregated at the corporate level and grouped into categories. This aggregation will be required as part of the overall review of risk that the board needs to undertake. The process of risk categorisation also enables the risks categorised together to be managed by the use of common control systems.

5.9 Probability

Probability is a measure of **likelihood** and can be stated as a percentage, a ratio, or more usually as a number from 0 to 1. It is a measure of the likelihood of an event happening in the long run, or over a large number of times.

$$\text{Probability of achieving the desired results} = \frac{\text{Number of ways of achieving desired result}}{\text{Total number of possible outcomes}}$$

5.9.1 Independent mutually exclusive events

Definitions

Mutually exclusive: Outcomes where the occurrence of one of the outcomes excludes the possibility of another (eg if a score of six is achieved when a dice is rolled once, it is not possible to score a four (or any other value) from the same roll.

Independent events: Two events are independent if the probability of one event occurring is not affected by the second event occurring (eg if a dice is rolled twice, the probability of scoring a six the second time is independent of the number scored on the first roll)

The probability of either one or another mutually exclusive events occurring can be calculated as the sum of the probabilities of the two events. For example, the probability of rolling a dice once and scoring either a five or a six can be determined by adding together the probability of rolling five and the probability of rolling six:

1/6 + 1/6 = 2/6

5.9.2 Independent not mutually exclusive events

The **general rule of addition** for two events, A and B, which are not mutually exclusive, is as follows: Probability of (A or B) = P (AUB) = P(A) + P(B) – P(A and B)

For example, in a standard pack of 52 playing cards, what's the probability of getting an ace or spade?

Ace = 4/52 Spade = 13/52

Ace of spades = 1/52

Therefore, the probability of selecting an ace or a spade is:

4/52 + 13/52 – 1/52 = 16/52 = 4/13

5.9.3 Dependent events

Dependent events are where the probability of one event is affected by the other, for example, the probability that sales exceed budget on a particular day may depend on the weather. Conditional probabilities are calculated as follows, where A and B are two dependent events:

$$P\text{ (A and B)} = P(A) \times P(B|A)$$

Where P(B|A) means the probability of B occurring given that A has occurred.

Worked example: Independent non mutually exclusive events

P(A) = the probability that it is sunny on any particular day = 0.6 P(B) = the probability that daily sales of ice creams exceed £500

P(B|A)= the probability that sales of ice creams exceed £500 given that it is sunny = 0.8

Requirement

What is the probability that is it both sunny and sales of ice creams exceed £500?

Solution

The probability that it is both sunny and sales exceed £500 is calculated as: P (A and B) = P(A) x P(B|A)

= 0.6 x 0.8 = 0.48

The formula above can be reorganised as follows:

$$P(B|A) = \frac{P\text{ (A and B)}}{P\text{ (A)}}$$

Worked example: Dependent events

During the last 100 days, it is not sunny on 40 days. Sales of ice cream exceeded £500 on 55 days. 50 of these were sunny days and 5 were not sunny.

Requirement

What is the probability that sales exceed £500 when it was not sunny?

Solution

The probability that sales exceeded 500 when it was not sunny can be calculated as follows:
P(A) = the probability that it is not sunny = 0.4

P(B) = the probability that sales of ice cream exceed £500

P(B|A) = the probability that sales of ice cream exceed £500 given that it is not sunny

P(A and B) = the probability that it was not sunny and sales of ice cream exceeded £500 = 0.05 (five days out of 100)

$$P(B|A) = \frac{P\,(A \text{ and } B)}{P\,(A)} = \frac{0.05}{0.4} = 0.125$$

Interactive question 2: Dependent events

The internal auditors of Hacket Ltd reviewed the quality of production output for the month of November 20X1. They found a number of faults in products and particularly in the output produced by one machine operator, Alan.

The internal auditor discovered that overall there were faults in 3% of all products made by Hacket in November 20X1. However, of the faults discovered, 12% were due to Alan's mistakes. Alan had processed 4% of all products in November 2021.

Requirement

Management wants to consider disciplining Alan, but it first wishes to know what percentage of the items produced by Alan contained faults

See **Answer** at the end of this chapter.

5.9.4 Expected values

An expected value is a weighted average value that you might expect to get if you take some action where the possible outcomes are variable, but you can estimate the probability of each outcome occurring. Imagine if you are planning to sell an item on eBay. You are told that there is a 20% chance that you will not sell the item, a 30% chance that you will achieve a price of £30 and a 50% chance that you will sell the item for £50. Your expected selling price is £34, being (20% × 0) + (30% × 30) + (50% × 50).

Although the outcome of a decision may not be certain, there is some likelihood that probabilities could be assigned to the various possible outcomes from an analysis of previous experience. You may also be given a probability distribution

Definition

Probability distribution: A probability distribution is a statistical function that describes the possible values and associated probabilities that a variable may take.

Worked example: Expected value

Ziggy Ltd is about to launch a new confectionery product, Stardust. Market research has indicated that annual demand for Stardust is uncertain. The following spreadsheet, showing the probability distribution, has been provided by the market research team. This shows five possible levels of contribution from selling Stardust, along with their probabilities:

	A	B	C
1	Outcome	Probability	Contribution £
2	Very bad	0.1	(1,000)
3	Bad	0.2	1,000
4	Neutral	0.4	5,000
5	Good	0.25	12,000
6	Very good	0.05	15,000
7			
8			

Requirement

Calculate the expected value of contribution

Solution

D7 =SUM(D2:D6)

	A	B	C	D
1	**Outcome**	**Probability**	**Contribution £**	**Contribution × Probability**
2	**Very bad**	0.1	(1,000)	(100) [1]
3	**Bad**	0.2	1,000	200
4	**Neutral**	0.4	5,000	2,000
5	**Good**	0.25	12,000	3,000
6	**Very good**	0.05	15,000	750
7	**Expected value**			**5,850**

[1] =B2*C2

The concepts of probability and expected value are vital in **business decision-making**. The expected values for single events can offer a helpful guide for management decisions.

- A project with a positive EV should be accepted.
- A project with a negative EV should be rejected.
- When choosing between options the alternative which has the **highest EV of profit** (or the **lowest EV of cost**) should be selected.

Where probabilities are assigned to different outcomes we can evaluate the worth of a decision as the **expected value**, or weighted average, of these outcomes. The principle is that when there are a number of alternative decisions, each with a range of possible outcomes, the optimum decision will be the one which gives the highest expected value.

Expected values can be built into decision trees to aid decision making. The amount of expected profit is likely to be conditional on the result of various decisions. We will look at this in more detail below. First, let us briefly consider some limitations of using expected values as a basis for decisions.

Limitations of expected values

Evaluating decisions by using expected values has a number of limitations.

(a) The **probabilities** used when calculating expected values are likely to be estimates. They may therefore be **unreliable** or **inaccurate**.

(b) Expected values are **long-term averages** and may not be suitable for use in situations involving one-off decisions. They may therefore be useful as a **guide** to decision making.

(c) Expected values do not consider the **attitudes to risk** of the people involved in the decision- making process. They do not, therefore, take into account all of the factors involved in the decision.

(d) The **time value of money may not be taken into account**: £100 now is worth more than £100 in 10 years' time.

Probabilities and expected values can be represented diagrammatically using **decision trees** to aid decision making.

5.9.5 Decision trees

Decision trees are diagrams which illustrate the choices and possible outcomes of a decision.

Decision trees can incorporate both the probabilities and values of expected outcomes. It is important to note that **in the SBM&L exam you will** *not* **be required to draw a decision tree**.

Decision trees provide a clear and logical approach to problem solving by:

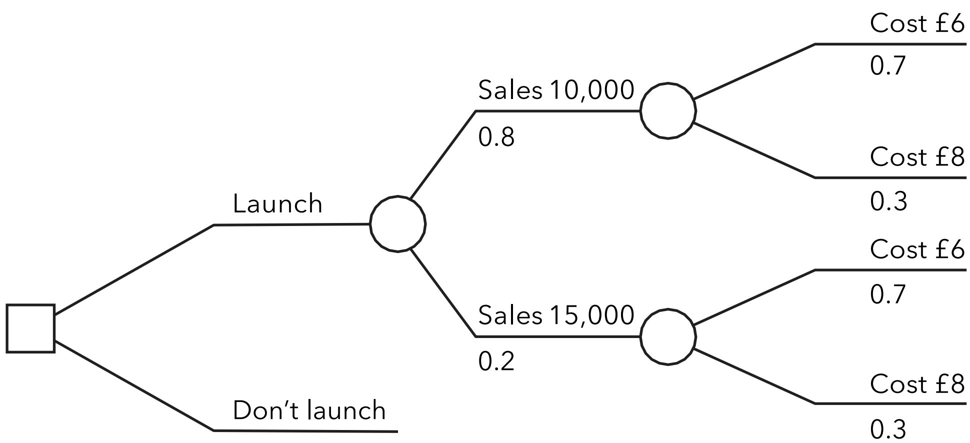
- showing all possible **choices** as **branches** on the tree (squares)
- showing all possible **outcomes** as **subsidiary branches** on the tree (circles)

Decision trees begin with a decision point, usually represented by a **square**, and the various choices branch off from this, flowing from left to right.

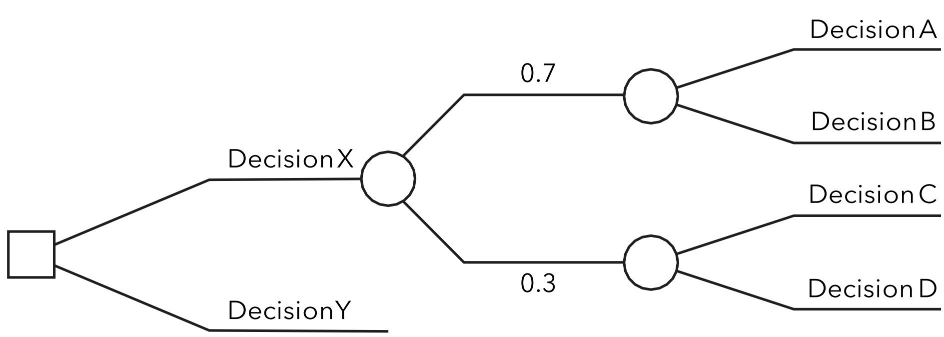
If the outcome for any of those choices is certain, then the branch of the decision tree for that alternative is complete.

If the outcome of a particular choice is uncertain, then the various possible outcomes must be shown. This is done by inserting an **outcome point** on the branch. This is symbolised by a **circle**. Each possible outcome will then branch out from that outcome point. These are known as **subsidiary branches**.

The **probability** of each outcome occurring should be written on the branch of the tree that represents that outcome.



Sometimes a **decision taken now** will lead to **other decisions** being taken in the future. When this situation arises, the decision tree can be drawn as a **two-stage tree**, as shown below.



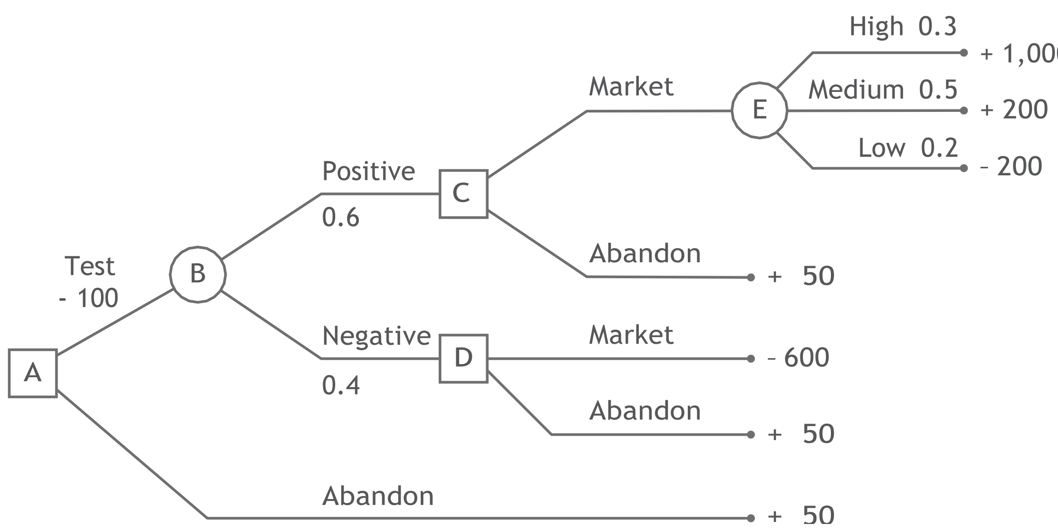
Evaluating decisions with a decision tree

The EV of each decision option can be evaluated, using the decision tree to help with keeping the logic properly organised. Once the basic decision tree (ie, choices, outcomes and probabilities) has been drawn from left to right chronologically, the basic rules for attaching values to the decision process are as follows.

(a) We start on the right-hand side of the tree and work back towards the left hand side and the current decision under consideration. This is sometimes known as the 'rollback' technique or 'rollback analysis'.

(b) Working from right to left, we calculate the EV of revenue, cost, contribution or profit at each outcome point on the tree.

Consider the decision tree below which has been prepared for a new product that has been developed. The decision is whether the new product should be test marketed or abandoned. The outcomes are high, medium or low demand and are dependent on whether the result of the test marketing is positive or negative.



The right-hand-most outcome point is point E, and the EV is as follows.

D5 =SUM(D2:D4)

	A	B	C	D
1	**Outcome**	**Profit** £'000	**Probability**	**Profit × Probability** £'000
2	**High**	1,000	0.3	300 [1]
3	**Medium**	200	0.5	100
4	**Low**	(200)	0.2	(40)
5	**Expected value**			360

[1] =B2*C2

This is the EV of the decision to market the product if the test shows a positive response. It may help you to note the EV on the decision tree itself, at the appropriate outcome point (point E).

(a) At decision point C, the choice is as follows.

(1) Market, EV = +360 (the EV at point E)

(2) Abandon, value = +50

The choice would be to market the product, and so the EV at decision point C is +360.

(b) At decision point D, the choice is as follows.

(1) Market, value = – 600

(2) Abandon, value = +50

The choice would be to abandon, and so the EV at decision point D is +50.

The second stage decisions have therefore been made. If the original decision is to test market, the company will market the product if the test shows a positive customer response, and will abandon the product if the test results are negative.

The evaluation of the decision tree is completed as follows.

(c) Calculate the EV at outcome point B.

0.6 × 360 (EV at C)

+ 0.4 × 50 (EV at D)

= 216 +20 = 236

(d) Compare the options at point A, which are as follows.

(1) Test: EV - EV at B minus test marketing cost = 236 – 100 – 136

(2) Abandon: Value = 50

The choice would be to test market the product, because it has a higher EV of profit. Evaluating decisions by using a decision tree has a number of limitations:

- The time value of money may not be taken into account.
- Decision trees are not suitable for use in complex situations (eg, probabilities could be continuous in the form of a normal distribution, rather than only two possible outcomes).
- The outcome with the highest EV may have the greatest risks attached to it. Managers may be reluctant to take risks which may lead to losses.
- The probabilities associated with different branches of the tree are likely to be estimates, and possibly unreliable or inaccurate.

Professional skills focus: Applying judgement

It is important to remember that calculations, such as probabilities and expected values, have limitations so can only guide management decisions rather than providing a definitive solution.Apply your judgement to calculations when making recommendations.

5.10 Statistics

Definition

Descriptive statistics: Descriptive statistics describes the properties of sample and population data

Definition

Inferential statistics: Inferential statistics uses properties from descriptive statistics to test hypotheses and draw conclusions

Where outcomes associated with a risk can be predicted reliably, and the probabilities of those outcomes can be estimated, statistical techniques can be used to analyse the risks. The statistical methods covered here are:

- mean (or expected value)
- standard deviation
- co-efficient of variation

While the material covered here is provided in the context of measurement of risks, it should be noted that the knowledge of statistics is relevant throughout this exam, for example it could be used in questions involving analysis of the performance of a business.

5.10.1 Mean

The mean (or average) of a set of data is calculated by taking the sum of all the values and dividing by the number of values in the distribution.

Context example: Mean

The daily takings of a shop last week were:

	A	B
1		Takings (£)
2	Monday	5,000
3	Tuesday	5,500
4	Wednesday	7,250
5	Thursday	9,300
6	Friday	12,000
7	Saturday	15,325
8	Sunday	12,700
9	Total weekly sales	**67,075** [1]
10	Average (mean) daily sales	**9,582** [2]

[1] =SUM(B1:B8)

[2] =AVERAGE(B1:B8)

5.10.2 Expected values

Expected values was covered above. It should be noted that the expected value is a type of mean, as it represents the mean outcome that is expected if a decision is repeated many times.

5.10.3

The mean or expected value does not indicate the level of risk associated with an event. There could be two risks that both have the same mean or expected value, but very different risk profiles.

Risk means the variability of outcomes. If the potential outcomes of an event are all close to the expected value, there is less risk than if the potential outcomes are very different. Consider two potential investments, both with the same expected value:

	A	B	C	D
1	**State of market**	**Probability**	**Project 1**	**Project 2**
2	**Poor**	0.3	(20,000)	10,000
3	**Medium**	0.5	40,000	29,000
4	**High**	0.2	55,000	37,500
5	**Expected value**		25,000 [1]	25,000

[1] =(C2*B2)+(C3*B2)+(C4*B4). This can then be copied into cell D5.

Although both projects have the same expected cash flows of £25,000, Project 1 is more risky, as there is a wider variability of potential returns than for Project 2. The potential outcomes are more widely dispersed.

One method commonly used to measure dispersion is the standard deviation.

Definition

Standard deviation: A measure of the amount of variation or dispersion in a data set

Context example: Standard deviation

The shop takings for last week have been recorded in the spreadsheet below.

The mean and standard deviation of takings has been calculated using the formula in the spreadsheet:

	A	B
1		Takings (£)
2	Monday	5,000
3	Tuesday	5,500
4	Wednesday	7,250
5	Thursday	9,300
6	Friday	12,000
7	Saturday	15,325
8	Sunday	12,700
9	Mean	9,582 [1]
10	Standard deviation	3,910 [2]

[1] =AVERAGE(B2:B8)
[2] =STDEV(B2:B8)

5.10.4 Standard deviation in probability distributions

The formula for the standard deviations of a probability distribution is:

Standard deviation = $\sqrt{\sum(X - \bar{X})^2 \times \Pr(X)}$

Where: X is the expected value and Pr(X) is the probability of the distibution taking th e value X

Context example: Example standard deviation of probability distribution

Ziggy Ltd is about to launch a new confectionery product, Stardust. Market research has indicated that annual demand for Stardust is uncertain. The following probability distribution has been provided by the market research team, showing five possible levels of contribution from selling stardust, along with their probabilities:

	A	B	C
1	Outcome	Probability	Contribution £
2	Very bad	0.1	(1,000)
3	Bad	0.2	1,000
4	Neutral	0.4	5,000
5	Good	0.25	12,000
6	Very good	0.05	15,000
7	Expected value		5,850 [1]

[1] =(C2*B2)+(C3*B3)+(C4*B4)+(C5*B5)+(C6*B6)

The calculation of the variance and standard deviation is as follows:

	A	B	C	D	E	F
1	Outcome	Probability	Contribution	$(x-x)$	$(x-x)^2$	$(x-x)^2Pr(x)$
2	Very bad	0.1	(1,000)	(6,850) [1]	46,922,500 [2]	4,692,250 [3]
3	Bad	0.2	1,000	(4,850)	23,522,500	4,704,500
4	Neutral	0.4	5,000	(850)	722,500	289,000
5	Good	0.25	12,000	6,510	37,822,500	9,455,625
6	Very good	0.05	15,000	9,150	83,722,500	4,186,126
7		Expected value	5,850		Variance	23,327,500 [4]
8					Standard deviation	4,830 [5]

[1] =C2-C$7

[2] =D2^2

[3] =E2*B2

[4] =SUM(F2:F6)

[5] =F7^0.5

The standard deviation is therefore $\sqrt{23,327,500}$ = £4,830

5.10.5 Interpreting the standard deviation

The bigger the standard deviation, the more widely dispersed the possible outcomes of an event are. A bigger standard deviation means a higher risk.

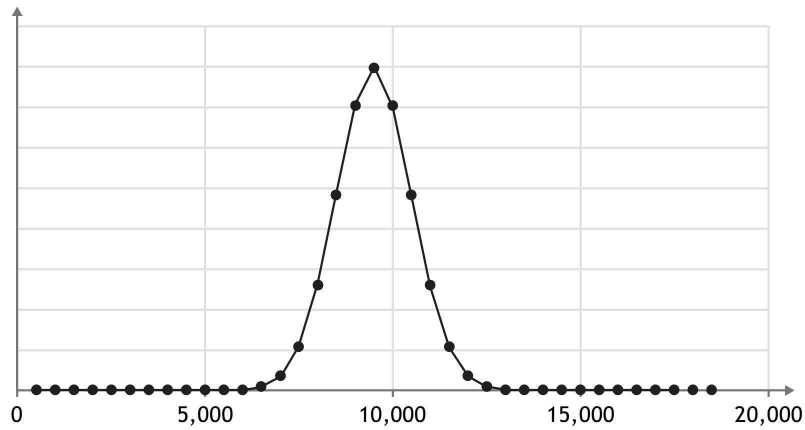
In the example (standard deviation) above, the standard deviation of shop takings was £3,620. This recognises that although the expected takings from the shop are £9,582 per day, the actual takings each day will differ from this. Sometimes they will be more than the expected value, sometimes less. On average, the difference between the actual daily takings and the expected value will be £3,620.

If distributions have a smaller standard deviation, it means that the actual outcomes will generally be closer to the expected outcome, while a larger standard deviation means the outcomes will be further away from the expected value.

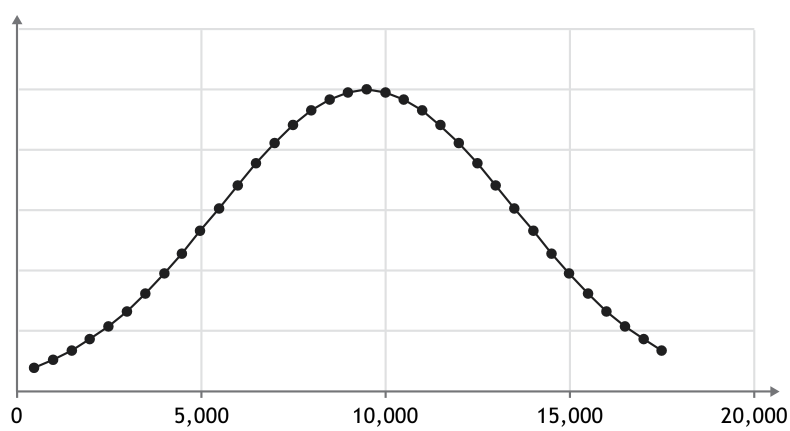
The meaning of standard deviation can be illustrated using the following diagrams. The diagrams are based on the example of the daily sales for the shop above. The charts show the probability distribution of daily sales, where the mean is £9,500 per day.

In the first chart, the standard deviation is a relatively low £1,000. On most days, sales are pretty close to the mean of £9,500 and are not widely dispersed.

Daily sales – small standard deviation



The second chart shows that when the standard deviation is larger, daily sales are much more widely dispersed, in other words they vary more widely from day to day.



Daily sales – large standard deviation

The relevance of standard deviation to risk is that a higher standard deviation means a greater level of risk.

5.10.6 Use of standard deviation in risk management

Standard deviations can be used when evaluating the risks associated with particular strategies or decisions if the information is available. Strategies may be rejected if the standard deviation is considered too high, given the risk appetite of the organisation.

In the investment industry, standard deviations are calculated for investments, for example as a measure of the volatility of share prices on the stock markets. Investment decisions are taken based on the expected return and standard deviation of the investment returns. If the standard deviation is high, a higher expected return will be required by investors.

In the exam, you would not be required to calculate the standard deviation. However, you may be given a standard deviation and asked to interpret it.

5.10.7 Co-efficient of variation

It is difficult to interpret the standard deviation without considering the size relative to the size of the data. The standard deviation may be larger, simply because the values of the data in a distribution

are higher. A more meaningful measure is the coefficient of variation, which relates the standard deviation to the expected value of a distribution.

Definition

Co-efficient of variation: The standard deviation of a distribution divided by the mean or expected value.

Context example: Co-efficient of variation

A company is considering launching either one or both of two potential products. The following probability distribution has been provided by the market research team, showing five possible levels of contribution from selling each product, along with their probabilities:

	A	B	C	D
1	**Outcome**	**Probability**	**Product 1 – contribution**	**Product 2 – contribution**
2	**Very bad**	0.1	(1,000)	16,000
3	**Bad**	0.2	1,000	18,000
4	**Neutral**	0.4	5,000	22,000
5	**Good**	0.25	12,000	29,000
6	**Very good**	0.05	15,000	32,000
7	**Expected contribution**		5,850 [1]	22,850 [2]
8	**Standard deviation**		4,830	4,830
9	**Co-efficient of variation**		82.6% [3]	21.1% [4]

[1] =(B2*C2)+(B3*C3)+(B4*C4)+(B5*C5)+(B6*C6)

[2] =(B2*D2)+(B3*D3)+(B4*D4)+(B5*D5)+(B6*D6)

[3] =C8/C7

[4] =D8/D7

Note: The calculation of the standard deviation has not been shown here.

Both products have the same standard deviation, which may suggest that they bear the same level of risk. However, the differences in contribution for product 1 are relatively much larger. Contribution at 'very good' is 3 times larger than contribution at 'neutral' for product 1, while for product 2, it is only 45% greater.

The co-efficient of variation of product 2 is much lower than product 1. Although the standard deviations of the two products are equal, the level of contribution of product 2 is much higher than that of product 1. The variations as a percentage of the level of contributions (represented by the expected value) are much lower for product 2 than product 1. This explains the coefficient of variation.

For the co-efficient of variation (CoV) it is worth noting that CoV cannot be used where the data can be negative (eg not for NPV but it is valid for PV of inflows). It also cannot be used for interval scale (eg, questionnaire scores). Also zero must be meaningful (so a Fahrenheit scale is inappropriate).

5.11 Probability distributions

Probability distributions were defined above as a statistical function that describes the possible values and associated probabilities that a variable may take. There are two forms of probability distribution:

- Discrete distributions, where the possible values that a variable can take are discrete (ie specific, exact values) and the probability of each value occurring can be stated.
- Continuous distributions, where the set of outcomes are values within a continuous range (eg, the age of a population would be defined by different bands, such as 20-30 years, 30-40 years etc).

The discussion of probabilities in sub sections 1 and 2 above related to discrete probabilities. This section focusses on a continuous probability distribution, the normal distribution.

5.11.1 Normal distribution

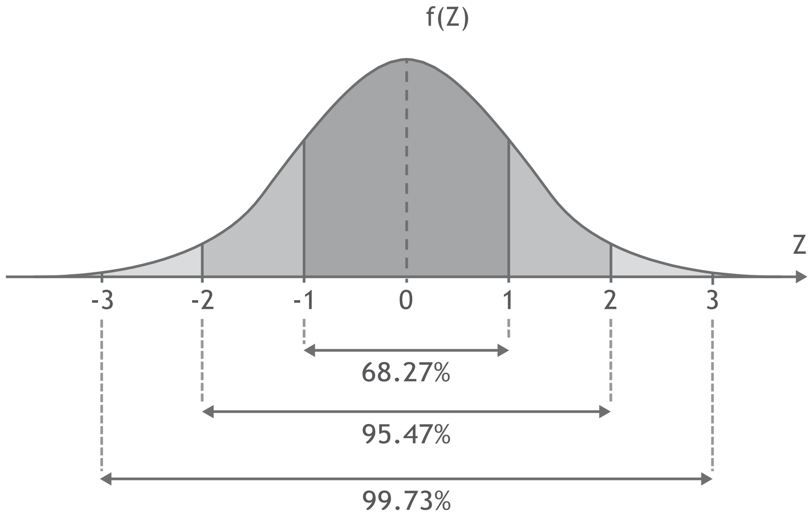
Many large probability distributions in the real world approximate the normal distribution. The normal distribution is a bell-shaped curve, and the probabilities of variables taking particular values is represented as the area under the curve between the two values.

The diagram below shows the normal distribution:

Ч is the mean of the distribution

б represents a standard deviation

The area under the curve shows the probabilities of being within certain ranges of the mean, where distance from the mean is measured in standard deviations.



Properties of the normal distribution:

The normal distribution has the following consistent properties:

- The mean of the distribution = the median = the mode
- The distribution is symmetrical – the probability of identifying a value as equal to or below the mean is 50% and the probability of it being equal to or above the mean is also 50%.
- The probability of being within particular ranges of the mean depends on the standard deviation:

(1) The probability of a value being between the mean, and one standard deviation above the mean is 34.1%

(2) 68.2% of values lie between one standard deviation below and one standard deviation above the mean

(3) 95.4 % of values lie between two standard deviations below and two standard deviations above the mean

(4) 99.7% of values lie between three standard deviations below and three standard deviations above the mean.

Some other useful values are:

- 90% of values lie within 1.645 standard deviations above and 1.645 standard deviations below the mean.
- 95% of values lie with 1.96 standard deviations above and 1.96 standard deviations below the mean.
- 99% of values lie within 2.58 standard deviations above and 2.58 standard deviations below the mean.

5.11.2 Z-score

A Z-score shows how many standard deviations above the mean a particular point is. This is useful when performing calculations with the normal distribution. Having calculated a Z-score for a particular point, it is possible to look up the value in normal distribution tables to ascertain the probability of a variable taking a value between the mean and that point.

The Z score for a particular value, X is calculated as:

Where μ is the mean of the distribution and σ is the standard deviation.

Worked example: Z-score

The average number of units produced during a particular day is normally distributed, with a mean of 1,000 and a standard deviation of 50 units.

Requirement

The production manager wants to know the probability that output will exceed 1,100 units.

Solution

The Z-score is calculated as (1,100 – 1,000)/50 = 2.

This means that 1,100 units is 2 standard deviations above the mean.

From the normal distribution tables above, the probability of taking a value higher than 2 standard deviations above the mean is 2.26%. Therefore, the probability that output will exceed 1,100 units is 2.2%. Note: This can be seen from the diagram above as follows: 50% of values lie below the mean. 95.47% of values lie within 2 standard deviations of the mean, therefore 47.74% (95.47%) lie in the range between the mean and 2 standard deviations above the mean. In total therefore 97.74% of values lie in the range between 0 and 2 standard deviations above the mean. The probability of being above 2 standard deviations above the mean is therefore 1 – 97.74% = 2.26%

Interactive question 3: Z scores 1

The mean number of units produced by a machine is 1,000 per day, with a standard deviation of 25 units.

Requirement

The production manager wishes to know what is the probability of producing between 950 and 1,000 units per day.

See **Answer** at the end of this chapter.

Interactive question 4: Z scores 2

The number of units produced by a machine is 1,000 per day, with a standard deviation of 25 units.

Requirement

The production manager wishes to know what is the probability of producing between 975 and 1,025 units per day.

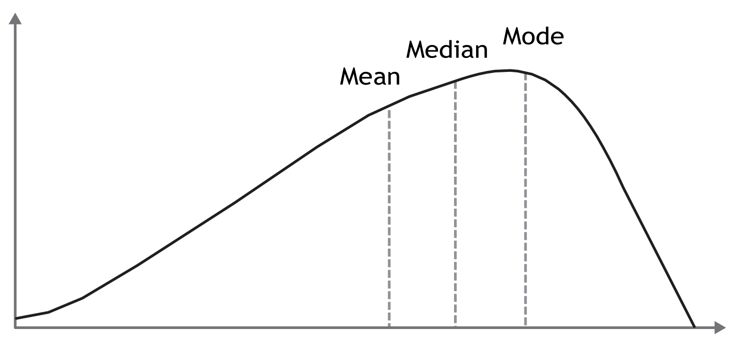
See **Answer** at the end of this chapter.

5.11.3 Skewness

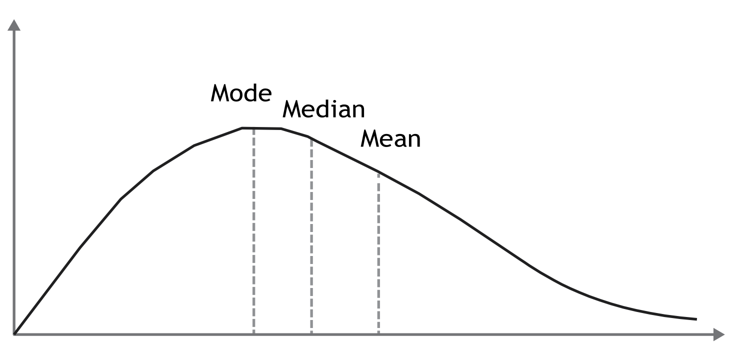
- A left-skewed (negatively skewed) distribution has the majority of values concentrated on the right-hand side of the distribution. There are fewer values on the left-hand side of the distribution but these are more spread out, so the curve has a long left-hand tail but appears to lean slightly to the right. The mode typically occurs at the highest point in the distribution, and typically the median is to the left of the mode (so it has a lower value than the mode) and the mean is to the left of the median (so it has a lower value than both the mode and the median).

- A right-skewed (positively skewed) distribution has the majority of values concentrated on the left- hand side of the distribution. There are fewer values on the right-hand side of the distribution but these are more spread out, so the curve has a long right-hand tail but appears to lean slightly to the left. Again the mode typically occurs at the highest point in the distribution, and typically the median is to the right of the mode (so it has a higher value than the mode) and the mean is to the right of the median (so it has a higher value than both the mode and the median).
- The normal distribution is not skewed, and the mean = the median = the mode at the highest point of the distribution.

Skewness can be illustrated by the following diagrams:



Left skewed



Right skewed

5.11.4 Sampling and confidence intervals

Definition

Population: the entire set of data from which a sample is selected for analysis (eg sales to all customers in the last year.

Definition

Sampling: analysing a sample of data from a population, and based on this, making inferences about the population.

Developments in information technology and the growth of big data over the past 20 years have made it more feasible to analyse whole populations of data.

It is often unfeasible or even impossible to find out information about every item in a population. In order to perform statistical analysis therefore, **samples** are taken and **inferences** are made about the population based on analysis of the sample. (Eg in order to find out the mean salary of ICAB members, a sample of ICAB members could be taken. The mean salary of the members of the sample would be used as an estimate for the mean salary of all ICAB members.)

When making inferences, it is probable that the **statistics obtained from the sample will not be exactly the same as the population**, so it has to be recognised that **they are an estimate**. In order to make estimates more reliable:

- the sample should be selected randomly, to avoid introducing bias (see Chapter Data analysis)
- larger samples are likely to be more representative of the population than small samples.

5.11.5 Sampling distributions

One sample of ICAB members is likely to have a different average salary to another sample. If a third sample was taken, this might have a third average salary, and so on. The means of the samples follow a probability distribution, known ats a sampling distribution.

Definition

Sampling distribution : A sampling distribution is a probability distribution of a statistic taken from all possible samples of a given size from a population (eg the sampling distribution of the mean is a probability distribution that shows the distribution of sample means of a given size).

The central limit theorem states that if all samples of a given size, n, are taken from a population, as n gets larger, the sampling distribution of the sample means approaches a normal distribution, with the mean of the distribution being equal to the population mean, and a standard deviation (referred to as a standard error) equal to the population standard deviation divided by the square root of the sample size.

Worked example: Sampling distribution

In Beeland, the mean height of males is 180 cm with a standard deviation of 15 cm.

Requirement

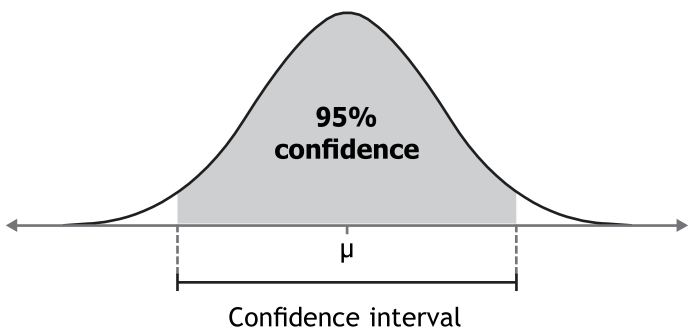
If all possible samples of men, with a sample size of 40 were taken, what would be the mean and standard error of the sampling distribution of the sample mean?

Solution

The sample means would be normally distributed, with a mean of 180cm (population mean) and a standard error of 15/(√40) = 2.37.

5.11.6 Confidence intervals

When we use a sample to estimate the population mean, it is not likely that our sample mean will be exactly the same as the population mean. If we know the population mean and standard error of sample means, we can define a range within which a certain proportion of sample means would lie. This is a confidence interval. When we define a confidence interval, we define the probability – eg, a 95% confidence interval would contain 95% of sample means.



Distribution of sample means (X)

around population means (μ)

Confidence interval

Confidence intervals can be calculated by using the properties of the normal distribution. If we know the population mean, and standard error of the sampling distribution of the mean, then we can calculate a range of values within which a certain portion of sample mean lies. In the normal distribution, 95% of values lie within 1.96 standard deviations of the mean. Therefore our confidence interval at 95% is:

Population mean plus or minus 1.96 standard errors

For a 90% confidence interval, the interval is population mean plus or minus 1.645 standard errors

Worked example: Confidence intervals

In Beeland, the mean height of males is 180 cm with a standard deviation of 15 cm. If all possible samples of men, with a sample size of 40 were taken, the sample means would be normally distributed, with a mean of 180cm (population mean) and a standard error of 15/(√40) = 2.37.

Requirement

What would the confidence interval of sample means be at 95%?

Solution

A 95% confidence interval for sample means of size 40 is: 180 ± 1.96 × 2.37 = 180 ±4.65 = 175.35 to 184.65 cm

This means that 95% of samples of size 40, taken from the male population of Beeland would have a mean between 175.35 and 184.65 cm.

The same value can be achieved using the spreadsheet function CONFIDENCE

B5 =CONFIDENCE(B1,B2,B3)

	A	B
1	Alpha (100% -95%)	0.05
2	Standard deviation	15
3	Sample size	40
4	Mean	180
5	Confidence value	**4.65**

The confidence interval is therefore 180 + 4.65 = 175.35 to 184.65

In practice, when we take a sample from a population, we can use this to estimate the population mean and the population standard deviation. We can also define confidence intervals within which the true population mean lies.

Estimate of population mean = sample mean

Estimate of population standard deviation = standard deviation of sample

Estimate of standard error of the sampling distribution =

$$\frac{\text{sample standard deviation}}{\sqrt{n}}$$

where n is the sample size.

Interactive question 5: Sampling and confidence intervals

A statistician is trying to estimate the mean height of males in Beeland. He has taken a sample of size 40, and calculated a mean of 178 cm for this sample with a standard deviation of 28.46. He has estimated the standard error of the sampling distribution of sample means to be 4.5 cm (28.46/(√40)).

Requirement

What is the 95% confidence interval for the population mean? Explain the meaning of it. See **Answer** at the end of this chapter.

5.12 Hypothesis testing

Hypothesis testing means using statistics to see if a predetermined idea (hypothesis) is correct.

A common type of hypothesis test relates to the mean of a population, where the analyst has a pre- determined idea (a hypothesis) about the value of a mean, and wants to test whether the hypothesis is correct. The following steps are taken:

(a) The hypothesis is formulated (eg the population mean is X). An alternative hypothesis is also formulated, being the conclusion that will be reached if the hypothesis is disproved (the mean is not X).

(b) The level of significance is chosen. This relates to the probability that will be accepted that the null hypothesis is rejected when it is correct. For a 5% significance level for example, there is a 5% chance that the hypothesis will be rejected when it is correct.

(c) A confidence interval is calculated for the population mean, based on the hypothesis mean, standard error and the significance level. If the significance level is 5% for example, 95% confidence intervals are used.

(d) If the value of the sample mean lies within the confidence intervals, then the null hypothesis is accepted. If the value lies outside the confidence interval, then the null hypothesis is rejected and the alternative hypothesis accepted.

Interactive question 6: Hypothesis testing

Alpha produces steel ball bearings of various sizes. One of the company's products is a ball bearing with a diameter of 5cm. Due to variations in operating conditions, the diameter of the bearings changes slightly from batch to batch, but customers will tolerate a small variation in size.

The production director has tested a sample of 40 batches to see if the average size really is 5cm. He has defined the null and alternative hypotheses for the test:

- null hypothesis: the average size of the ball bearings is 5cm
- alternative hypothesis: the average size of ball bearings is not 5cm.
- level of significance chosen: 90%

The sample gave a mean of 5.2cm. Based on the sample, the production director has estimated that the standard deviation of sample means is normally distributed with a standard error of 0.1cm. Normal distribution tables show that 90% of values within a normal distribution lie within 1.65 standard deviations of the mean.

Requirements

6.1 Calculate the confidence intervals for the production director's test at the 90% confidence level.

6.2 State whether the null hypothesis would be accepted or rejected at the 90% level given the sample mean achieved.

6.3 What is the conclusion of the production director's test? See

Answer at the end of this chapter.

5.13 Regression and correlation

Exploratory data analysis aims to identify relationships between items in the data. The basic techniques for exploratory data analysis are regression analysis and correlation.

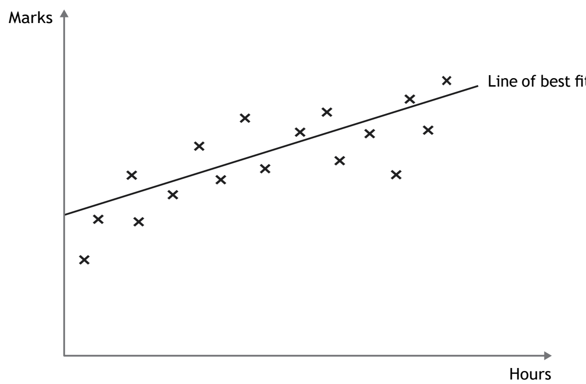
Definitions

Regression analysis: Regression analysis aims to specify the relationship between two or more variables. One of these variables is the dependent variable, whose value depends on the independent variable(s).

Correlation: Correlation is a measure of the extent to which changes in the dependent variable are explained by changes in the independent variable.

5.13.1 Regression and correlation

An accountancy training company believes that there is a relationship between the number of hours of studying, and the marks that students achieve in their exam. It has asked a sample of students to record the number of hours that they spend studying for their exam, and has then plotted these against the marks that they achieve in the exam on a simple graph or line chart:



Based on the analysis, a "line of best fit" has been drawn in by eye on the chart to show the trend in how the variables relate to each other. The line of best fit can be converted into a mathematical equation to show the relationship between the dependent variable (marks in exams) and the independent variable (hours of studying).

The line of best fit has an equation of the form y = ax + b, where:

- y is the predicted value of the dependent variable, given the value of the independent variable, x;
- a shows how much the dependent variable changes for a unit change in the independent variable (how may additional marks would a student obtain for one extra hours studying);
- b shows what the value would be if the value of the independent variable is zero (how many marks would a student who has done zero hours of studying achieve in the exam).

Tutorial Note
You would not be expected to perform regression analysis in the SBM exam, but you need to be aware of what regression means and how it is used.

Interactive question 7: Greendot

Greendot is considering acquiring one of two companies, Lila and Plume. Both companies have two divisions, each selling similar products in different markets. Greendot is looking to invest in a growth company with steady cashflows. You have been provided with monthly revenue data for each company in a pre-populated spreadsheet.

CHAPTER 7

	A	B	C	D	E	F	G
1		**Lila Revenues** £'000			**Plume Revenues** £'000		
2	Month	Division A	Division B	**Total**	Division A	Division B	**Total**
3	1	10	40	**50**	10	40	**50**
4	2	12	45	**57**	12	45	**57**
5	3	14	50	**64**	14	50	**64**
6	4	16	55	**71**	16	55	**71**
7	5	18	60	**78**	18	60	**78**
8	6	20	65	**85**	20	65	**85**
9	7	22	70	**92**	22	70	**92**
10	8	24	75	**99**	24	75	**99**
11	9	26	80	**106**	26	80	**106**
12	10	28	85	**113**	28	85	**113**
13	11	30	90	**120**	30	90	**120**
14	12	32	95	**127**	32	86	**118**
15	13	34	100	**134**	34	82	**116**
16	14	36	105	**141**	37	78	**115**
17	15	38	110	**148**	40	74	**114**
18	16	40	115	**155**	43	70	**113**
19	17	42	120	**162**	46	66	**112**
20	18	44	125	**169**	49	62	**111**
21	19	46	130	**176**	52	58	**110**
22	20	48	135	**183**	55	54	**109**
23	21	50	140	**190**	58	50	**108**

Requirement

Using spreadsheet functionality calculate the correlation and standard deviation for the data provided in the pre-populated spreadsheet. Comment on which company best fits with Greendot'sacquisition goals.

See **Answer** at the end of this chapter.

5.13.2 Correlation coefficient

The correlation co-efficient is a statistical measure which indicates how well regression analysis explains the data. It answers the question: what portion of the change in the dependent variable can be explained by changes in the independent variable? If all the points in the data lie exactly on the line of best fit, this indicates that 100% of the change in the dependent variable are due to changes in the independent variable.

The correlation coefficient can take a value between -1 and +1. If the value is minus, the dependent variable and independent variable are inversely related, which means that an increase in the dependent variable leads to a decrease in the independent variable. At a value of -1 or +1, all changes in the dependent variable are explained by the independent variable. As the value moves toward zero, the relationship becomes weaker, with the changes in the dependent variable explaining a lower portion of the changes in the independent variable.

Interactive question 8: Regression and correlation

7.1 A shop owner has analysed the relationship between daily sales of soft drinks and the outside temperature. They have calculated that daily sales have the following equation:

Y = 500 + 10 X, where Y is daily sales from drinks in £, and X is the temperature in degrees Celsius at midday. The correlation coefficient is 0.7.

Requirements

What is the dependent variable, and what is the independent variable in the analysis?

7.2 If the temperature at midday is 20 degrees Celsius, what is the predicted sales of drinks for that day?

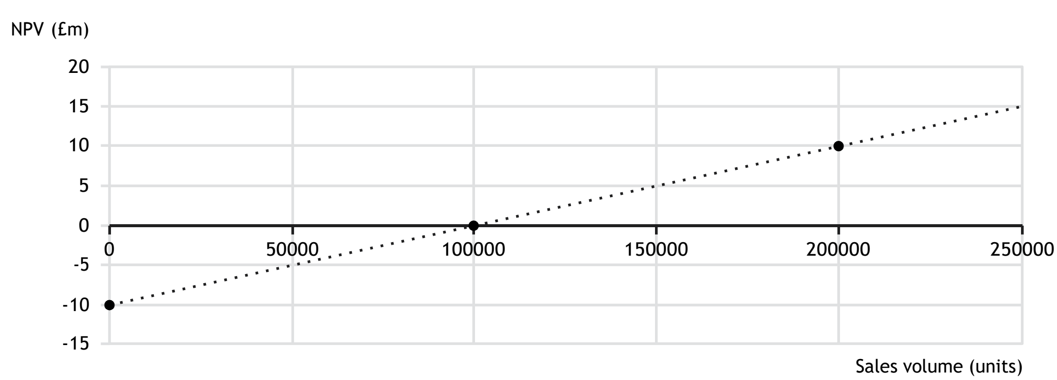
7.3 What does a correlation coefficient of 0.7 mean? See Answer at the end of this chapter.

5.13.3 Investment appraisal and regression analysis

Regression analysis can be useful in investment appraisal to identify a set of factors that have a strong link to the returns from a project.

The regression equation helps to build an understanding of the sensitivity of a project's NPV to changes in these factors.

For example, the impact of sales volume on NPV could be modelled.



Here this equation is approximately y = –10 + 0.0001x which means that starting from –10 (£m), NPV increases by approximately 0.0001 (£m) for each forecast unit of sales. This could also be used, as part of sensitivity analysis, to compare the impact of changes in one variable (such as the sales volume) to the predicted NPV of a project.

A regression equation is unlikely to fully explain the relationship between y and x. The failure

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of the regression equation to fully explain the relationship between the dependent (y) and independent (x)

variable results in an error variable, so the regression equation becomes y = a + bx + error. The larger the error term is, the less certain is the regression line.

5.13.4 Multiple regression analysis

Multiple regression analysis involves exploring whether identifying more than one independent variable reduces the error term and identifies the most important independent variables that reduce the error term as low as possible. This aims to provide a stronger regression line that quantifies the key independent variables that are associated with changes in the value of the dependent variable.

Multiple regression analysis will result in a more complex formula. For example, if two key independent variables (x1 and x2) had been identified then the formula would be y = a + bx1 + cx2+ error.

From the previous example, if the two independent variables affecting sales had been identified as time (X1) and economic growth (X2) then the regression equation could be y = 10 + 0.9X1 + 0.05X2.

The increasing availability of Big Data also makes it possible to identify the relationship between non-financial factors (eg, rainfall, social media followers, website hits) and the revenue from a project or even the overall NPV.

Multiple regression analysis can also be used to help make predictions of the value of a company which can be useful in evaluating a takeover. For example, some of the variables that could affect share prices include company profits, forecast revenue growth, the gearing ratio, and the number of competitors in the industry.

Advantages of linear regression

- Linear regression models are simple to use and easy to explain to non-financial managers.
- Linear models can be used to predict the impact of expanding variables beyond current estimates (such as identifying the impact of sales volumes or material costs being higher than predicted).

Limitations of linear regression

- There will not always be a linear relationship between variables and outcomes.
- Basic linear regression models can only consider the impact of one variable at a time. More complex multi-linear models are required to consider additional variables at the same time.
- Linear models may identify spurious relationships between variables and outcomes as they do not consider the difference between correlation and causation.
- Results will be less meaningful if the data collected is inaccurate or if the error term is large.

5.13.5 Correlation vs causation

A cause and effect relationship (also known as a causal relationship) exists between two variables when a change in one **causes** the change in the other.

For example, if staff are paid hourly, then as hours worked increase, wage costs will increase. The increase in hours worked has **caused** the increase in wage costs. There is a positive correlation between the number of hours worked and wage costs that, in this case, can be described as a cause- and-effect relationship.

However, **correlation does not necessarily mean that a cause-and-effect relationship exists**. There may be a reason for the correlation that is not **causal**.

For example, when the sales of sun cream increase, the sales of ice cream also increase. The increase in sun cream sales is not causing the increase in ice cream sales. There is a third variable, namely the weather, influencing both types of sales. This variable is known as a confounding variable.

Also, correlation may occur by pure chance; this is more likely to happen with a small set of data.

This highlights the need to exercise professional scepticism when analysing data and drawing conclusions.

Questions to consider might include:

- Does the relationship seem plausible?
- Could the relationship be because of chance or could a third variable be involved?

5.14 Diversification

Risks can be reduced by diversification, which involves taking on additional risks, where the outcomes respond in a different way to external factors. During the lockdown resulting from the coronavirus pandemic, companies that provided home delivery of foods saw a large increase in demand, while companies with activities related to hospitality saw a huge decrease in their income, so the impact of the virus on these two businesses was opposite.

The sum of two distributions may have a lower standard deviation than the standard deviations of the individual distributions if they react differently to external factors.

Context example: Real life example

An investment company is considering investing in two new businesses, a luxury hotel and a discount food retailer. The annual cash flows of the businesses depend on the state of the economy, which can be poor (with a probability of 25%), good (with a probability of 50%) or very good (with a probability of 25%). The cash flows of the two businesses, and the total cash flows of the two businesses are forecast to be as follows, along with calculations of the expected cash flows and standard deviations:

State of economy	Prob	Annual cash flows - hotel £	Annual cash flows - food retailer £	Annual cash flows - combined
Poor	0.25	400,000	1,300,000	1,700,000
Good	0.50	1,000,000	1,000,000	2,000,000
Very Good	0.25	1,300,000	800,000	2,100,000
Expected value		925,000	1,025,000	1,950,000
Standard deviation		375,000	205,649	170,783

Commentary

The table above demonstrates the following important points about combining two distributions:

(a) The expected value of the combined distribution is the sum of the expected values of the two individual distributions.

(b) The standard deviation of the combined distribution is less than the standard deviations of both the individual distributions.

While the first point will always be the case, it is not always the case that combining two distributions will lead to a lower standard deviation than each of the individual distributions. The reason it has occurred here is that the two distributions are **negatively correlated**: as the economy improves, people have more money to spend on luxury hotels, so the cash flows of the hotels increases, but demand for discount food retailers falls as people can afford to shop at more luxurious supermarkets.

Diversification works by taking on a combination of risks which are negatively correlated.

5.14.1 Covariance and correlation

The correlation co-efficient shows how strong the relationship is between two variables. The co- efficient can take any value between 1 and −1. A value of one means perfect correlation, ie all the changes in one variable are explained by changes in the other variable. A value of −1 also means perfect correlation, except that as one variable increases, the other variable falls. As the coefficient moves towards zero, the relationship between the two variables is weaker, and a co-efficient of zero suggests that changes in one variable have no impact on the other variable.

The covariance is a measure of how two distributions vary with each other. Where the covariance is positive, the two distributions vary positively (ie, as the value of one distribution increases, the value of the other increases). Where the covariance is negative, the opposite is the case. The covariance is determined by the correlation between the two distributions.

In the diversification example above, the covariance of the cash flows from the two businesses would be negative, because as cash flows earned by the luxury hotel rise, cash flows earned by the discount retailer fall. Where the covariance is negative, the standard deviation of the combined distributions is lower than the standard deviations of the two individual distributions. Diversification is most effective at reducing risk where the covariances between the risks is negative.

You would not be required to calculate the covariance or the correlation coefficient in an exam, but need to be aware of their meaning, and how they impact on diversification.

6 Risk response

Section overview

- Although organisations operating in the same industry may face similar risks, the ways in which they respond to these risks can differ significantly.
- Risk responses depend on such factors as the potential impact of the risk on the organisation and management's attitude towards risk.
- The four main responses to risk are: transfer, avoid, reduce and accept.
- Implementation of the risk management process should be treated as a separate project with clear objectives and success criteria.
- Just because risk management procedures are in place does not mean that companies are immune from the effects of risk. Such procedures may reduce the impacts of risk but will not eliminate them completely.
- Risks must be continually monitored to determine any change in profile that may lead to

procedures that control those risks being changed. This stage is effectively an audit of the overall risk management process, where expected and actual results are compared; and recommendations made for remedial actions.

Once risks have been identified, assessed and quantified, decisions must be taken as to how to respond to these risks. Methods of dealing with risk include avoidance, reduction, acceptance (retention) and transfer.

Risk response can be linked into the likelihood/consequences matrix and also the organisation's appetite for risk taking. This is known as the TARA framework: **T**ransfer, **A**void, **R**educe, **A**ccept.

Risk responses

		Consequences	
		Low	**High**
Likelihood	**Low**	**Accept or absorb** Risks are not significant. Keep under review, but costs of dealing with risks unlikely to be worth the benefits.	**Transfer** Insure risk or implement contingency plans. Reduction of severity of risk will minimise insurance premiums.
	High	**Reduce or manage** Take some action, eg, self-insurance to deal with frequency of losses.	**Avoid or control** Take immediate action to reduce severity and frequency of losses, eg, insurance, charging higher prices to customers or ultimately abandoning activities.

6.1 Transfer of risk

Risks can be transferred – to other internal departments or externally to suppliers, customers or insurers. Risk transfer can even be to the state.

Decisions to transfer risk should not be made without careful checking to ensure that as many influencing factors as possible have been included in the assessment. A decision not to rectify the design of a product, because rectification could be as expensive as paying any claims from disgruntled customers, is, in fact, a decision to transfer the risk to the customers without their knowledge: it may not take into account the possibility of courts awarding exemplary damages to someone injured by the product, to discourage people from taking similar decisions in the future.

Internal risk transfer can also cause problems if it is away from departments with more 'clout' (for example, sales) and towards departments, such as finance, that may be presumed to downplay risks excessively.

6.1.1 Legal and other restrictions on transferring risks

The first restriction is that a supplier or customer may **refuse** to enter a contract unless the organisation agrees to take a particular risk. This depends on the trading relationship between the firms concerned, and not a little on economics: how many suppliers could supply the item or service in question, for example, and how great is the need for the item?

6.1.2 Risk sharing

It is rare to be able to transfer all the risk to a third party, and in many cases risks can be partly held and partly transferred to someone else. An example is an insurance policy, where the insurer pays any losses incurred by the policy holder above a certain amount.

Risk sharing arrangements can be very significant in business strategy. For example, a **joint venture**

arrangement allows the venture partners to share the risk associated with the venture.

6.2 Avoidance of risk

Organisations will often consider whether risk can be avoided and, if so, whether avoidance is desirable – that is, will the possible savings from losses avoided be greater than the advantages that can be gained by not taking any measures and running the risk?

An extreme form of avoiding business risk is terminating operations altogether – for example, operations in politically volatile countries where the risks of loss (including loss of life) are considered to be too great; or the costs of security, too high.

Context example: Toyota

We mentioned in Strategic marketing and brand management the problems Toyota has faced in recent years regarding concerns about the safety of its cars. Toyota responded to these concerns by employing a risk avoidance strategy. Sales of a number of models were suspended in the US. Although Toyota's actions aimed to resolve the risks to health and safety, it may have been less effective in mitigating the risks to its reputation. Commentators highlighted an initial reluctance to admit the problem, along with poor communication of what it intended to do to regain control of the situation. The impact threatened car sales and share price, with investors reluctant to hold Toyota shares because of the level of uncertainties involved.

6.3 Reduction of risk

Often, risks can be avoided in part, or reduced, but not avoided altogether. This is true of many business risks, where the risks of launching a new product can be reduced by market research, advertising and so on.

Other risk reduction measures include contingency planning, loss control, internal control and, in the case of some financial risks, hedging. Financial risk management is covered in Financial risk management.

6.3.1 Contingency planning

Contingency planning involves identifying the **post-loss needs** of the business, **drawing up plans** in advance and **reviewing them regularly** to take account of changes in the business. The process has three basic constituents.

Information	How, for example, are the sprinklers turned off once the fire is extinguished? All the information that will need to be available during and after the event should be gathered in advance.
Responsibilities	The plan should lay down what is to be done by whom.
Practice	Unless the plan has been tested, there is no guarantee that it will work. A full- scale test may not always be possible; simulations, however, should be as realistic as possible and should be taken seriously by all involved.

6.3.2 Loss control

Control of losses also requires careful advance planning. There are two main aspects to good loss control: the physical and the psychological.

(a) There are many physical devices that can be installed to minimise losses when harmful events actually occur. Sprinklers, fire extinguishers, escape stairways, burglar alarms and machine guards are obvious examples. It is not enough, however, to install such devices. They will need to be inspected and maintained regularly.

(b) The key psychological factors are awareness and commitment. Every person in the business should be made aware that losses are possible and that they can be controlled.

6.3.3 Internal controls

Operational risks, financial reporting risks and compliance risks are reduced through internal control systems and internal controls. The purpose of controls is to:

- reduce the risks of failure to achieve organisational goals or targets (preventive controls)
- identify variations between actual performance and target (detective controls)
- take corrective action when actual performance varies adversely from target (corrective controls)

The work of internal auditors, and the review of internal control as part of an external audit, are examples of assurance procedures relating to risk and risk management.

6.3.4 Assurance procedures

A firm of accountants may be engaged to give advice on the adequacy of controls within a business plan, or to carry out a review of the adequacy and effectiveness of existing controls.

An assurance engagement to assess the effectiveness of controls or a control system involves:

- establishing the purpose and nature of the control system and of the controls within the system
- assessing the effectiveness of the design of the controls, and whether the controls as designed are sufficient for achieving the stated objectives of the control system
- assessing whether the controls, if suitably designed, are implemented effectively, or whether there appear to be failures in the operation of the controls

By assessing the effectiveness of the design and application of controls, assurance engagements should help to manage risks by reducing the likelihood or the impact of adverse risk events.

6.4 Accepting risks

Risk acceptance or retention is where the organisation bears the risk itself and, if an unfavourable outcome occurs, it will suffer the full loss. Risk retention is inevitable to some extent. However good the organisation's risk identification and assessment processes are, there will always be some unexpected risk. Other reasons for risk retention are that the risk is considered to be insignificant, or the cost of avoiding the risk is considered to be too great compared with the potential loss that could be incurred.

The decision of whether to retain or transfer risks depends firstly on whether there is anyone to transfer a risk to. The answer is more likely to be 'no' for an individual than for an organisation, because:

- individuals have more small risks than do organisations, and the administrative costs of transferring and carrying them can make the exercise impractical for the insurer
- the individual has smaller resources to find a carrier

In the last resort, organisations usually have customers to pass their risks or losses onto, up to a point, while individuals do not.

Professional skills focus: Applying judgement

One of the skills tested in the ACA exams is your ability to apply judgement and to assess the interaction of information from different sources. An organisations' response to risk depends upon the effect of the risk on the business as well as management's attitude towards risk so read the scenario carefully to determine the most appropriate strategy in the specific circumstances.

Interactive question 9: VSYS

VSYS Inc manufactures a range of computer products from its single factory located in a medium- sized town in central US. About 20% of the working population are employed at VSYS, and the company has a reputation for being a good employer with specific focus on maintaining and enhancing benefits for its employees.

Although the company is profitable, the recent management accounts show falling margins with the possibility of a loss being made next year – the first in the 25-year history of the company. The main reasons for the falling profits have been identified as increasing competition from manufacturers in the Far East, and ongoing quality control issues with several key manufacturers. A recent feasibility study shows that moving production to a Far Eastern country would enable VSYS to take advantage of lower labour costs and proximity to suppliers of high-quality components. The administration and marketing functions would remain at their current location.

Movement of production systems to the Far East is seen as a particular problem for VSYS. Specific areas of concern include:

- obtaining and maintaining supplies from new suppliers
- setting up production lines with new workforce and new machinery
- maintaining sufficient inventory of materials to meet demand when the delivery times are uncertain
- implementing any necessary revisions to the management accounting systems

However, the board is confident that the move will be successful and looks forward to a positive response from workers and shareholders.

Requirement

Assess the risks associated with the decision to outsource to the Far East, briefly recommend ways in which these risks can be controlled and briefly describe the assurance work that VSYS should carry out on potential suppliers.

See **Answer** at the end of this chapter.

6.5 Risk pooling and diversification

Risk pooling and diversification involves using portfolio theory to manage risks. You may remember that portfolio theory is an important part of an organisation's financial strategy, but its principles can be applied to non-financial risks as well.

Risk pooling or diversification involves creating a portfolio of different risks based on a number of events, some of which may turn out well while others will turn out badly, the average outcome of which will be neutral. What an organisation has to do is to avoid having all its risks positively correlated, meaning that everything will either turn out extremely well or extremely badly.

One means of diversification may be geographical – spreading risk across countries at different stages of the trade cycle.

In addition, although diversification may sound good in theory, the company may have insufficient expertise in the product or geographical markets into which it diversifies, leaving it vulnerable to competition from other companies that focus on a specific market or product type.

Interactive question 10: Budget airline

A budget airline that offers low-cost short-haul flights is considering the provision of flights to a country with a volatile political environment, where public spending on such facilities as airports is often withdrawn without warning. There is also a history of foreign planes being grounded for no apparent reason and being forbidden to leave the country for several days. Market research has shown that despite these problems, there is considerable demand for low-cost flights to this country.

Requirement

Identify any potential risk strategies that could be adopted by the airline's management. See **Answer** at the end of this chapter.

6.6 Implementation of risk management plans

Implementation of the risk management process helps to clarify what ongoing actions should be taken beyond the planning stage to ensure that the system is implemented in a manner that is beneficial to the management team. The implementation process helps to ensure that you get the best risk protection for the amount invested in the risk and other management processes.

The implementation process focuses on the process itself rather than on the risks of a particular project. This step should be ongoing, focusing on the performance of the risk management process and the way in which it is integrated with other processes relevant to the project in question.

Organisations need to treat the implementation stage as a separate project with clear objectives and success criteria, clear planning, proper resourcing and effective monitoring and control.

6.7 Monitoring of risk management plans

All risk management plans must be monitored to ensure that they are achieving the desired results and that changes to the project's risk profile are reflected.

To assess the effectiveness of risk management plans, standards and benchmarks must be established against which results should be measured. Standards can come from such sources as industry regulations or the industry leader.

Once the standards and benchmarks have been established, the risk management plan can be measured continually against them over time to allow actual performance to be compared with expected performance, which in turn can be used to adjust below-standard results.

In order to determine when adjustments to performance should take place, a business needs to establish a threshold (or 'trigger point') which represents a sufficient change in risk exposure to warrant another risk analysis being carried out. Risk management is a continuous process and those responsible for handling risk should be prepared to treat it as such.

As with any process, evaluation of risk management plans is essential to ensure they are performing to expectations. Managers and stakeholders in the risk management process should consider such areas as:

- How successful was the plan and were the benefits and costs at the predicted level?
- In the light of the above, are any changes needed to improve the plan?
- Would the plan have benefited from the availability of additional information?

Risk monitoring is similar to an audit of the risk management process. Various tests will be carried out to determine whether individual controls are working properly and recommendations made in the light of results. However, unlike auditing, risk management monitoring does not take place only on an annual basis. Risk monitoring is a continuous process.

Context example: Infosys – risk management

We have already discussed the key risks faced by Infosys according to its 2016–17 annual report. The report went into detail about its risk management activities.

During the year, risk management practices were primarily focused on the effectiveness of strategic programs in improving competitive position, new initiatives, preparedness to address incidents that could cause disruption to physical and technological infrastructure, strengthening internal controls to detect fraudulent activity, leadership development, leadership succession planning, and monitoring the impact of changes in the regulatory environment.

The company carried out the following risk management activities:

- Regularly assessed progress on the execution of strategic programs, specifically progress on the growth of new software enabled services, impact of automation, performance of subsidiary businesses, leadership succession planning and operating cost optimisation.
- Regularly assessed the business environment including client concentration, client technology spend, growth of top clients and revenue bookings from large outsourcing engagements.
- Reviewed key operational risks and actions based on the internal risk register, external assessments, internal audit findings and incidents. Reviewed operational risk areas including client service delivery, information security (cyber-attacks and threat intelligence), women's safety, physical security, succession planning, capital expenditure on infrastructure and business continuity management.
- Monitored key developments in the regulatory environment, especially of the UK and USA, relating to immigration laws, minimum wages and impact to businesses of our clients.
- Monitored the availability of natural resources, such as water and power, and its impact on operations.

Source: https://www.infosys.com/investors/reports-filings/annual-report/annual/Documents/AR- 2017/financials/pdf/Infosys_AR17_Risk_Management_Report.pdf

6.8 Board monitoring of control systems

As well as monitoring specific plans, the board needs to review the effectiveness of systems taken as a whole. Boards should regularly receive and review reports and information on internal control, concentrating on:

- what the risks are and strategies for identifying, evaluating and managing them
- the effectiveness of the management and internal control systems in the management of risk, in particular how risks are monitored and how any weaknesses have been dealt with
- whether actions are being taken to reduce the risks found
- whether the results indicate that internal control should be monitored more extensively

In addition, when directors are considering annually the disclosures they are required to make about internal controls they should conduct an annual review of internal control. This should be wider ranging than the regular review; in particular it should cover:

- the changes since the last assessment in risks faced, and the company's ability to respond to changes in its business environment
- the scope and quality of management's monitoring of risk and internal control, and of the work of internal audit, or consideration of the need for an internal audit function if the company does not have one
- the extent and frequency of reports to the board
- significant controls, failings and weaknesses which have, or might have, material impacts on the accounts
- the effectiveness of the public reporting processes

6.9 Reporting on risk management

There are minimum expected guidelines for disclosure on risk management and corporate governance. Publicly traded companies should report on the risks they face, and outline these risks in more detail.

- The governing body of the company (generally the board of directors) should acknowledge responsibility for internal control systems.
- An ongoing system should be in place for identifying, evaluating and managing significant risks.
- An annual process should be in place for reviewing the effectiveness of the internal control systems.
- There should be a process to deal with the internal control aspects of any significant problems disclosed in the annual report and accounts.

6.10 Limitations of risk management plans

As with all business processes, regardless of their quality, risk management plans have their limitations. They are only as good as the information that is used to construct them. If risks are not assessed properly, then a great deal of time and resources could be wasted in dealing with the risk of losses that, in fact, are highly unlikely to occur – time and resources that could have been more gainfully employed elsewhere. Some organisations overestimate what risk management processes should be able to achieve, to the extent that work is suspended until the risk management process is considered to be complete.

At the other extreme, there are organisations who believe themselves to be immune from losses resulting from business risk, simply because they have risk management processes in place.

Complacency is one of the worst enemies of successful businesses. As mentioned above, risk management processes must be continually monitored for any weaknesses – just like the business environment itself, they are not static instruments.

Such is the focus on risk and its consequences in today's business that there is a danger of management spending so long thinking about the negative aspects of projects that they forget about the positive aspects.

Interactive question 11: LP

LP manufactures and supplies a wide range of different clothing to retail customers from 150 stores located in three different countries in the Eurozone.

In order to increase sales, a new internet site is being developed which will sell LP's entire range of clothes using 3D revolving dummies to display the clothes on screen. The site will use some new compression software to download the large media files to purchasers' PCs so that the clothes can be viewed. This move is partly in response to environmental scanning which indicated that a new competitor, PVO, will be opening an unknown number of stores in the next six months.

As a cost-cutting move, the directors are considering delaying LP's new range of clothes by one year. Sales are currently in excess of expectations and the directors are unwilling to move away from potentially profitable lines.

A retail customer of LP's has recently brought legal proceedings against LP for loss of business through one of the chemicals used to waterproof some garments releasing toxic fumes after prolonged exposure to sunlight. The case is due to come to court in two weeks' time but LP's lawyers think that it could be a very lengthy case and believe that LP will eventually lose it. LP's board has made a number of estimates. The directors believe that the best outcome for LP will be damages of

£300,000 payable in one year's time. The worst possible outcome would be for the case to continue for 3 years, in which case the estimate of damages and costs is £2,500,000, payable in 3 years' time. A further estimate, between these two extremes, is that damages of £900,000 will be payable in 2 years' time. Management's estimates of probabilities are best outcome 30%, worst case outcome 10% and middle ground outcome 60%. No provision or any disclosure has been made for this court case in the draft financial statements that are due to be finalised over the next few weeks. Prior to the legal claim being made, LP had already stopped using the chemical in its manufacturing process.

Requirements

10.1 Explain the business risks facing LP and briefly describe how these risks can be managed.

10.2 Explain how the possible losses arising from the legal claim should be dealt with in LP's financial statements.

See **Answer** at the end of this chapter.

7 ESG and climate risk management

Section overview

Over the past two decades, risks associated with ESG issues and climate change have become much more significant, both in terms of their likelihood and in terms of their impact.

There is no universally accepted definition of what is meant by ESG risks – narrow definitions may focus on the environment or social issues, while broader definitions focus on a range of issues.

Guidance has been provided to apply the COSO enterprise risk management model to ESG risks.

Climate change has brought additional risks to organisations, both at a strategic level and at an operational level.

7.1 Nature of ESG risks

Since 2006, the World Economic Forum has carried out its annual Global Risks Perception survey, in which it asks leaders what they perceived as being the most significant risks over the next ten years. The following quotation from the 2021 report shows how significant risks related to the environment and climate change are.

"Among the highest likelihood risks of the next ten years are extreme weather, climate action failure and human-led environmental damage… Among the highest impact risks of the next decade, infectious diseases are in the top spot, followed by climate action failure and other environmental risks;"

(World Economic Forum, *The Global Risks Report 2021 16th edition*. Available from: https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf (Accessed 14 July 2022)

There is no universally accepted definition of ESG risks but, broadly speaking, risks relating to environment, poor social responsibility and poor governance can be categorised as ESG risks.

Recent high profile ESG events include the following:

- **Environmental**: Events caused by climate change such as extreme weather causing disruption to supply chains.
- **Social**: Reputational harm caused by events, such as OXFAM's alleged cover up of sexual harassment by employees in Haiti in 2018.
- **Governance**: Corporate failures resulting from fraud or false accounting at the highest level, such as the failure of Carillion which was due to poor management in taking on loss making contracts and failing to perform adequate risk assessments.

A much broader approach to defining ESG related risks was developed by MCSI (*quoted in COSO, WBCSD Enterprise Risk Management, Applying enterprise risk management to environmental, social and governance-related risks):*

Pillars	Themes	ESG Key issues
Environment	Climate change	Carbon emissions
		Product carbon footprint Financing environmental impact
		Climate change vulnerability
	Natural resources	Water stress
		Biodiversity and land use
		Raw material sourcing
	Pollution and waste	Toxic emissions and waste
		Packaging materiality and waste
		Electronic waste
	Environmental opportunities	Opportunities in clean tech
		Opportunities in clean building
		Opportunities in renewable energy
Social	Human capital	Labour management
		Health and safety
		Human capital development
		Supply chain labour standards
	Product liability	Product safety and quality
		Chemical safety
		Financial product safety
		Privacy and data security
		Responsible investment
		Health and demographic risk
	Shareholder opposition	Controversial sourcing

Pillars	Themes	ESG Key issues
	Social opportunities	Access to communications
		Access to finance
		Access to health care
		Opportunities in nutrition and health
Governance	Corporate governance	Board
		Pay
		Ownership
		Accounting
	Corporate behaviour	Business ethics
		Anti-competitive practices
		Tax transparency
		Corruption and instability
		Financial system instability

7.2 Enterprise Risk Management for ESG risks

COSO and the World Business Council for Sustainable development (WBCSD) have provided guidance on how to apply the COSO enterprise risk management model (see Section 2 above) to ESG risks. The guidance is based around the five components of the COSO Framework:

1. **Governance and culture for ESG related risks:** The governance of an organisation will determine how ESG risks are managed. The board and executive management should be aware of ESG related risks and should foster a culture of collaboration between those responsible for risk management and those responsible for ESG issues.
2. **Strategy and objective setting for ESG related risks:** There must be a strong understanding of the impacts the organisation has on nature and society, as well as the dependencies the business has on nature and society. Organisations should examine the value creation process to understand these dependencies in the short-, medium- and long-term, and consider them when setting strategic objectives.
3. **Performance for ESG-related risks: This involves three steps:**
   - **Identifying risks** – various tools can be used to identify ESG related risks, and there is an emphasis on collaboration between the risk managers and sustainability practitioners, to ensure that ESG related risks are taken into account during the risk management process.
   - **Assessing and prioritising risks** – the severity of risks must be assessed in a manner that managers understand. It is important that emerging or longer-term risks are not ignored.
   - **Implementing risk responses** – this will determine in the longer term how effectively the organisation can preserve or create value over the longer term.
4. **Review and revision for ESG-related risks**: A process must be in place for monitoring the effectiveness of the ERM activities, and if necessary, taking action to modify them. Metrics must be used to alert management of the need for changes in the identification,

assessment and responses to risks.

5. **Information, communication and reporting:** Reporting both internally and externally to support risk-informed decision making.

7.3 Risks related to climate change

According to the United Nations, "Climate change is the defining issue of our time and we are at a defining moment".

Climate change refers to long-term shifts in temperatures and weather patterns. Some of these shifts occur naturally, such as due to variations in the solar cycle but, since the 1800s, human activities have been the main driver of climate change.

Human activities contribute to climate change through the creation of greenhouse gases, principally carbon dioxide, methane, nitrous oxide and ozone. These are produced by activities such as the burning of fossil fuels (eg, oil and coal), deforestation and the use of landfill sites for waste disposal. Greenhouse gasses accumulate in the earth's atmosphere and trap the heat from the sun. Climate change has many adverse effects, including severe weather conditions and melting polar ice caps leading to rising sea levels.

The Paris Agreement of 2015 is a legally binding treaty in which 193 parties (192 countries plus the EU) have committed to reduce their carbon emissions. The aim of the agreement is to limit increases in global temperatures by the end of this century to 2.0 degrees Celsius above pre-industrial levels. Scientists believe that this can be achieved but will require a huge reduction in carbon emissions and the use of technology to remove carbon from the atmosphere.

In the UK, the government has committed to a legally binding target of net zero emissions by 2050. Climate change can potentially bring many risks to organisations.

The Task Force on Climate-related Financial Disclosures (TCFD) identifies **several classes of risks and opportunities** relating to climate change:

Risks	Opportunities
Acute: extreme weather events **Chronic**: changing weather patterns and rising mean temperature and sea levels	
Policy and legal: these relate to changes in regulations and exposure to litigation	**Resource efficiency**: cost savings due to more efficient use of resources and recycling
Technology: relates to risk of existing products and services being replaced with lower emissions options, and unsuccessful investment in new technologies	**Energy sources**: use of new sources of energy and use of government incentives
Market: changing costs of raw materials and changing customer behaviour	**Products and services**: development of new, low emission goods and services
Reputation: risk of loss of reputation among customers and other stakeholders (eg, investors)	**Markets**: access to new markets

7.3.1 Strategic and operational risks related to climate change

Strategic risks are risks that will impact an organisation over the longer term. In terms of climate change, these risks identified by the TCFD are strategic in nature. Examples of strategic risks related to climate change are:

- Being required to withdraw goods and services that contribute to greenhouse gasses from the market – for example, car manufacturers are moving into the production of electric cars and will stop producing diesel- and petrol-powered cars in the next two decades.
- Changing laws relating to greenhouse gas emissions – such as requirements to reduce carbon emissions. These may bring additional compliance costs.
- Reputational risk for organisations that are deemed to cause excessive amounts of greenhouse gasses
- Changing weather patterns may make it unfeasible to continue production, particularly in agriculture, if there is an increase in droughts or floods.

Operational risks are those risks that impact operations. Examples of operational risks related to climate change are:

- Disruption to operations caused by extreme weather conditions such as floods, droughts or wildfires. These disruptions may affect the organisation directly or may impact on parties further up the value chain – for example, if a supplier of a vital component has to close down for a period due to an extreme weather.
- Shortage of water. Water is used in many industries and water shortages may lead to the rationing or lack of availability of water.
- Fines and penalties for failure of systems that monitor an organisation's greenhouse gasses, leading to exceeding legal limits.

Summary

Tick off

Risk management tools and plans have become increasingly important over the last few years. More and more organisations are recognising the benefits of having formal plans for dealing with the risk. ☐

As with all business processes, risk management plans require detailed groundwork to ensure they fulfil the objectives. A commonly used framework is: ☐

↓

Establishing the context

↓

Risk identification

↓

Risk assessment

↓

Risk profiling

↓

Risk quantification

↓

Risk responses

↓

Implementation of plans

Each part of the framework must be dealt in with detail to allow management to fully understand what they want the risk management plan to do. ☐

Management should also be aware of the limitations of risk management, including guarding against complacency at the one extreme and trying to build a perfect system at the other. ☐

Consider the risks relating to climate change and ESG factors and ensure that these are considered in the risk management process. ☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the main sources of risk and uncertainty for businesses? (Topic 1)
2.	What principles does the COSO ERM framework set out? (Topic 2)
3.	What are the responsibilities of the Board with regard to risk management? (Topic 3)
4.	What are the main concerns of stakeholder groups regarding risk and uncertainty? (Topic 4)
5	What do the standard deviation and coefficient of variation tell us about a particular probability distribution? (Topic 5)
6.	How can risks be prioritised and managed? (Topic 6)
7.	What are the main types of ESG risk? (Topic 7)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are helpful to further topic understanding and guide skills application before you proceed.

Question	Learning benefit from attempting this question
2 HOOD	This question is a good example of the need to apply your knowledge to a scenario. It is a full risk question examining HOOD's risks, the effect of those risks on the organisation and the mitigation strategies that the company could employ to minimise the risk. Use your technical knowledge and commercial awareness to provide a practical response.
4 Bush Council	Risk management is also important in the not-for-profit sector which is covered in this question. Be sure to understand risk management in profit seeking and not-for-profit entities for the SBM&L exam. Here you are asked to examine the opinions and risk attitudes of two board members. You are also required to recommend suitable assurance procedures for internal audit. Remember that assurance represents 10% of the syllabus and can be the source of some straightforward marks in the exam.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Technical reference

1 **IAS 10,** *Events After the Reporting Period*

- Outlines the requirements as to when events after the end of the reporting period should be adjusted in the financial statements for that period. Adjusting events are those which provide evidence of conditions existing at the end of the reporting period, whereas non-adjusting events are those which indicate conditions arising after the reporting period.

2 **IAS 36,** *Impairment of Assets*

- Seeks to ensure that an entity's assets are not carried at more than their recoverable amount (being the higher of fair value less costs of disposal, and value in use). An annual impairment test is required for goodwill and certain intangible assets, but for the majority of assets an impairment test is only required where there is an indication of impairment of an asset.

3 **IAS 37,** *Provisions, Contingent Liabilities and Contingent Assets*

- Outlines the accounting for provisions (liabilities of uncertain timing or amount), as well as contingent assets (possible assets) and contingent liabilities (possible obligations and present obligations which are not probable or are not reliably measurable). Provisions are measured at the best estimate of the expenditure required to settle the present obligation, and reflect the present value of expenditures required to settle the obligation where the time value of money is material.

Self-test questions

Answer the following questions.

1 ANG

ANG is a road haulage contractor. The company specialises in collection and delivery of large or heavy items, such as railway locomotives and sections of bridges, from the manufacturer to the customer. The company owns 49 road vehicles of different sizes to enable transportation of the different goods.

ANG's risk management policy is based on taking out insurance. As well as the standard employer and third-party liability classes of insurance, ANG insures against damage to road infrastructure such as bridges and tunnels from its own vehicles, or as a result of goods being carried becoming unstable and falling off ANG's lorries.

ANG's terms and conditions of carriage note that radioactive goods will not be transported under any circumstances. Explosives are carried, but only where the owner accepts liability on their own insurance.

Contingency planning is limited; the board of ANG believes that if any risks do occur, then ANG has sufficient vehicles to continue operations.

The board of ANG is also considering a new venture for the same-day delivery of goods where the distance to travel is more than its existing fleet of road vehicles could travel in one day. This venture involves the purchase of surplus Hercules transport planes from the army. The board has recently decided to make the purchase of the planes because they are being offered at a substantial discount. Marketing activities will commence next month.

Requirements

1.1 Explain the elements of a risk management framework in an organisation.

1.2 Explain the risk management strategies available to an organisation.

1.3 Evaluate the risk management strategy of ANG, explaining any amendments that you think are necessary.

2 HOOD

HOOD sells a wide range of coats, anoraks, waterproof trousers and similar outdoor clothing from its 56 stores located in one country. The company is profitable, although the gross profit in some stores has declined recently for no apparent reason.

Each store uses EPOS to maintain control of inventory and provides the facility to use EFTPOS for payments. However, about 55% of all transactions are still made in cash. Details of sales made and inventories below reorder levels are transferred to head office on a daily basis where management reports are also prepared.

Inventory is ordered centrally from head office, details of requirements being obtained from the daily management information provided by each store. Orders are sent to suppliers in the post, with stock arriving at each store approximately 10 days after the reorder level is reached.

Requirements

2.1 Identify the different risks facing HOOD, placing the risks into suitable categories.

2.2 Discuss the potential effect of each risk on the organisation, describing how the impact of that risk may be minimised.

3 The LinesRUs Company

The LinesRUs Company is responsible for maintaining the railway infrastructure for the rail network in a large European country. Main areas of responsibility for the company include:

- ensuring that the railway tracks are safe
- ensuring its signalling equipment is installed correctly and works properly
- maintenance of overhead power lines for electric trains

Income is fixed each year dependent on the number of train services being operated and is paid via a central rail authority. The company is granted a sole franchise each year to provide services on the rail network.

Work is scheduled in accordance with the amount of income, and to provide LinesRUs with an acceptable operating profit. Any additional work, over and above standard maintenance (eg, due to foreseen factors such as bridges being damaged by road vehicles and unforeseen factors such as car drivers falling asleep and driving their cars onto railway tracks), is negotiated separately and additional income obtained to repair the infrastructure in these situations.

A lot of maintenance work is relatively simple (eg, tightening nuts and bolts holding railway tracks together) but is extremely important, as an error may result in a train leaving the rails and crashing. The board of LinesRUs is aware of many of these risks and attempts to include them in a risk management policy.

However, recently a train was derailed, causing the death of 27 passengers. Initial investigations show that faulty maintenance was the cause of the derailment. One of the unforeseen consequences of the crash has been a fall in the numbers of people using trains, with a subsequent fall in income for train operators. LinesRUs are being sued by the train operators for loss of income, and the national press is suggesting LinesRUs must be incompetent and are calling for a re-evaluation of the method of providing maintenance on the rail network.

One of the risks that LinesRUs faces is the risk of injuries to staff during working hours. Currently the average number of injuries experienced per year is 300. An injury is only recorded if a member of staff requires medical treatment. The average cost of an injury in terms of lost days and compensation to the injured workers is £25,000. The company is considering investing in one of two safety programmes that would reduce the expected number of expected injuries. Statistics compiled by rail maintenance companies in other countries show the number of expected injuries as a result of implementing the programmes are as follows:

	Programme 1	Programme 2
Expected injuries	250	225
Standard deviation	30	80
Additional costs	£1 million	£1.5 million

Requirements

3.1 Advise the directors of LinesRUs of the main stages of a structured risk analysis approach that will be appropriate to the company's needs.

3.2 Using the 'Transfer-Avoid–Reduce-Accept' framework, construct four possible strategies for managing the risk that rail crashes could occur. Your answer should describe each strategy and explain how each might be applied to this case.

3.3 Discuss the relative advantages of the two safety programmes for staff.

4 Bush Council

Bush Council is the local government authority responsible for the running of public services in a district of approximately 300 square miles and with a population of over 400,000. The Bush district comprises a mixture of towns, villages and rural areas.

The council employs approximately 16,000 staff in a wide variety of occupations. The council is responsible for the maintenance of the entire public infrastructure in its area of responsibility, including the roads and sewerage systems. The council also manages education and care for vulnerable residents. The council has a divisional structure, with each division taking responsibility for specific matters such as education and roads throughout the Bush district.

Injury statistics

Employment law requires that every employer, including Bush Council, must maintain a register of all workplace injuries sustained by employees. There is no precise definition of a reportable injury, but council guidelines indicate that anything that requires a dressing, such as a bandage or sticking plaster, must be reported as minor injuries. Injuries are classified as 'serious' if they require the victim to be absent from work for more than three days and 'severe' if they require admission to hospital or involve a fatality.

The latest injury statistics show that there were 175 injuries during the year ended 31 December 20X0, of which 25 were serious injuries and 3 were severe. The council's director of operations is satisfied with these figures because the number of injuries is no worse than in previous years. He holds the view that such figures are to be expected, given the diverse range of jobs, many of which are risky, throughout the council. The chief executive of the council does not share these views: he thinks that the council should try to prevent all injuries by eliminating accidents in the workplace. The chief executive is also concerned about the accuracy of the injury statistics and wants the council's internal audit department to ascertain whether the figures are reliable.

Requirements

4.1 Discuss the director of operations' view that it is impossible to prevent all workplace injuries and discuss the chief executive's view that it is unacceptable for Bush Council to tolerate any injuries.

4.2 Recommend assurance procedures that internal audit could use to verify the figures for the number of injuries in Bush Council's workplaces.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Note: This is not an exhaustive list – you may have thought of different examples that are equally relevant.

Six risks:

- **Seasonality of business** – Most purchases are likely to be associated with seasons. Easter and Christmas are major seasons for the confectionery business, but there may be dips at other times of the year.
- **Impulse buying** – A large proportion of confectionery purchases are made on impulse. If economic changes reduced the amount of impulse buying – due to consumers having less money to spend – this could have a major effect on profits.
- **Supply of raw materials** – Sugar is a major raw material used in the manufacture of confectionery and non-alcoholic beverages. There may be a risk of relying too heavily on one major source of supply of sugar and other raw materials necessary for the continued production of products.
- **Competition** – The confectionery and non-alcoholic beverages markets are highly competitive. If there is a particular product that contributes a large proportion of sales revenue, there is a considerable risk that a rival company will bring out a similar product and take some of the market share. The extent of this risk will depend very much on the power of the brand.
- **Role of food in public health** – With lots of publicity about levels of obesity, children's eating habits, heart disease and diabetes, there is a significant threat to the confectionery and fizzy drinks markets. There is potential for governments to restrict advertising of certain products and to impose additional taxes on confectionery and fizzy drinks, which could make marketing more difficult. This could have a significant downward effect on sales and profits. Consumer tastes may change for health-related reasons. If the company is unable to respond, this will also result in declining sales or margins.
- **Product recalls and incorrect labelling of merchandise –** The confectionery industry is particularly susceptible to the risk of product recalls and incorrect labelling. The necessary publicity given to the potential consequences of nut allergies, for example, has led to much stricter regulation of labelling information. There have been instances of products being recalled due to failure to include warnings of nut content on labels. It is not just the product recall itself that is expensive – the potentially damaging effect on the company's reputation could have an even greater impact. Although product recalls are infrequent, their considerable impact is such that very tight internal controls are necessary to prevent their occurrence.

Answer to Interactive question 2

Probability that product is faulty, given that it was produced by Alan Let P(A) = probability that product was faulty

Let P(B) = probability that product was processed by Alan P(A and B) = 3% x 12% = 0.36%

Probability that product is faulty, given that it was produced by Alan

$$= P(A|B) = \frac{P(A \text{ and } B)}{P(A)} = \frac{0.36\%}{4\%} = 9\%$$

Therefore 9% of the products produced by Alan are faulty.

Answer to Interactive question 3

Z score is (950 – 1,000)/25 = –2.

950 units is therefore 2 standard deviations below the mean of 1,000 units. We are therefore looking at the probability of being in the range between the mean and 2 standard deviations below the mean.

Using the diagram above, we can see that there is a 95.47% chance of a value occurring between 2 standard deviations above and 2 standard deviations below the mean. There is therefore a 47.7% probability of being between the mean and 2 standard deviations below it (95.47% ÷ 2).

There is therefore a 47.7% chance that the machine will produce between 950 and 1,000 units per day.

Answer to Interactive question 4

In this case, the mean is in the middle of the range and we are looking for the probability of being between 1 standard deviation below and 1 standard deviation above the mean. Referring to the normal distribution diagram above, we can see that the probability of being in the range from 1 standard deviation below to 1 standard deviation above the mean is 68.2%.

Note: This has a much higher probability than being between the mean and two standard deviations from the mean.

There is therefore a 68.2% chance that production will be between 975 and 1025 units per day.

Answer to Interactive question 5

The 95% confidence intervals for the for the population mean are:

Confidence intervals = sample mean ± 1.96 × standard error

= 178 ± 1.96 × 4.5 = 169.2 cm to 186.8 cm

The meaning is that there is a 95% chance that the actual population mean lies within the interval 169.2 to 186.8.

Note - when using excel for this type of problem, enter the standard deviation of the sample, not the standard error of the distribution:

B5 =CONFIDENCE(B1,B2,B3)

	A	B
1	Alpha (100% -95%)	0.05
2	Standard deviation	28.46
3	Sample size	40
4	Mean	178
5	Confidence value	**8.82**

The confidence interval is therefore 178± 8.82 = 169.18 to 186.82

Answer to Interactive question 6

6.1 The 90% confidence interval is the expected mean ± 1.65 standard deviations = 5 ±(1.65×0.1) = 4.835 to 5.165

6.2 The sample mean is 5.2cm, which lies outside the confidence interval. The null hypothesis is therefore rejected at the 90% level.

6.3 The conclusion is that the mean of the ball bearings is not 5cm. The sample had a mean of 5.2cm which is outside of the confidence interval. It is very unlikely that a sample would have a mean of 5.2cm if it came from a population with a mean of 5.0cm.

Answer to Interactive question 7

Analysis of the pre-populated spreadsheet shows that for Lila company, both division's monthly revenues increase in parallel. There is therefore near perfect correlation shown by the correlation of 1(Cell B25) between the revenues of the two divisions. Lila fulfils Greendot's acquisition criteria in that both divisions are showing growth. Although the standard deviation of 43.43 shows variability in monthly revenues, it is due to growth and is therefore a largely predictable variability.

Plume company shows increasing revenue for Division A across the 21 months of data provided. Division B increases to month 13 and then falls to month 21. The result is therefore a low correlation of 0.12 (Cell F25) between divisional monthly revenues. The total revenue of the company has a much lower SD (Cell G24, SD = 21.76) than the sum of the SDs of the two divisions (Division A SD = 14.71, Division B SD = 14.35) because risk is offset between the two divisions in months 12 to 21 where revenues move in opposite directions. Despite lower variability in cashflows, as shown by the lower standard deviation for Plume (21.76 compared to 43.43 for Lila), revenues are falling in Division B so Plume does not fulfil Greendot's acquisition criteria.

	A	B	C	D	E	F	G
1		**Lila Revenues** £'000			**Plume Revenues** £'000		
2	Month	Division A	Division B	**Total**	Division A	Division B	**Total**
3	1	10	40	**50**	10	40	**50**
4	2	12	45	**57**	12	45	**57**
5	3	14	50	**64**	14	50	**64**
6	4	16	55	**71**	16	55	**71**
7	5	18	60	**78**	18	60	**78**
8	6	20	65	**85**	20	65	**85**
9	7	22	70	**92**	22	70	**92**
10	8	24	75	**99**	24	75	**99**
11	9	26	80	**106**	26	80	**106**
12	10	28	85	**113**	28	85	**113**

	A	B	C	D	E	F	G
13	11	30	90	**120**	30	90	**120**
14	12	32	95	**127**	32	86	**118**
15	13	34	100	**134**	34	82	**116**
16	14	36	105	**141**	37	78	**115**
17	15	38	110	**148**	40	74	**114**
18	16	40	115	**155**	43	70	**113**
19	17	42	120	**162**	46	66	**112**
20	18	44	125	**169**	49	62	**111**
21	19	46	130	**176**	52	58	**110**
22	20	48	135	**183**	55	54	**109**
23	21	50	140	**190**	58	50	**108**
24	Standard deviation	12.41 **1**	31.02	43.43	14.71	14.35	21.76
25	Correlation Lila	1 **2**			Correlation Plume	0.12 **3**	

Answer to Interactive question 8

8.1 The dependent variable is daily sales of drinks. The independent variable is the temperature at midday. (Hint: sales depend on the temperature.)

8.2 If the temperature at midday is 20 degrees Celsius, then predicted sales of drinks are 500 + (10 × 20) = £700.

8.3 A correlation coefficient of 0.7 shows that:

The value is positive, so the relationship between the dependent and independent variable is also positive (sales of drinks go up when the temperature goes up).

The coefficient is closer to 1 than 0, so quite a high portion of daily changes in sales of drinks is due to changes in the external temperature. The regression analysis explains the data comparatively well.

Answer to Interactive question 9

Risks

Possible non-compliance with laws – US

The possible reduction in the workforce in the US will mean that many employees will be entitled to some redundancy pay. There is the possibility of breach of employment law in the processing and payment of final salaries. Internal audit will need to review any redundancy calculations on a test basis to ensure that employment law has been complied with.

Possible non-compliance with laws – Far East

Establishing a factory in the Far East will mean that VSYS will have to comply with the laws and regulations of a foreign country. The directors must ensure that the law in the country is understood, possibly by hiring local solicitors.

Overall risks from new systems

Setting up a new factory in the Far East will also mean establishing new management and financial accounting systems in that country. Risks inherent in establishing those systems may be minimised by exporting the systems currently being used in the US. However, it is unlikely that no modifications will be necessary, as new systems will be necessary to meet the specific situation in the new location.

New systems always provide a risk of failure or incorrect reporting, due to lack of adequate testing or implementation problems. Internal audit will need to review the systems in detail to try to minimise the errors that occur.

Communication risks – Far East to US

Establishing a new production location will mean that regular management and other reports will be sent between two geographically diverse locations. This new communication system will run risks such as communications being lost or intercepted en route. The board will need to ensure that appropriate encryption systems are introduced across the communication system to minimise these risks.

Board control

Geographical distance from the US to the Far East may limit the board's ability to maintain appropriate control of the new production location. The risk is that the new factory may manufacture the computer components correctly, but fail to meet its own constraints regarding mix of components produced or timescales for production. To maintain adequate control, a director may have to be appointed to be in residence at the new factory to ensure both locations are attempting to meet the objectives of VSYS.

Assurance work

- Review financial statements of supplier for evidence of financial health.
- Discuss with supplier's directors their future plans and forecasts, to see if there is a possibility of future financial problems or whether the supplier is at risk of overtrading.
- Review ethical code, if supplier has one, and ascertain how the supplier ensures adherence to this code.
- Review evidence of supplier's employment terms and, if feasible, inspect suppliers' factories for evidence of working conditions.
- Search for evidence in media or on the internet of whether the supplier has been accused of poor employment practices or unethical behaviour.
- Review terms of contract and assess strength of guarantees and effectiveness of remedies if supplier fails to perform in accordance with contract.
- Ensure that contract includes sufficient protection for VSYS's intellectual property.
- Obtain evidence of supplier's capacity and assess whether supplier may have trouble meeting orders, particularly during periods of peak demand.
- Examine samples of production to see if supplier reaches required quality standards.

Answer to Interactive question 10

Risks:

- Risk **avoidance**
  - The airline could abandon plans to offer services to this country.
- Risk **reduction**
  - Invite the host government to be a partner in the venture.
  - Seek written assurances from the host government that the airport to be used will be fully maintained to international safety standards and that planes will not be prevented from taking off without good – and communicated – reasons.
  - Have contingency plans in place to adequately deal with any operational problems while in the country – for example, establish contacts with a local coach company to ensure transport to hotels if passengers have to spend another night in the country before the plane can take off; negotiate deals with local hotels to provide any necessary accommodation.
  - If the new service is likely to boost the country's economy due to, for example, an increase in visitors, it may be worth trying to lobby the country's Government for a change in policy.
- Risk **transfer**
  - Have adequate insurance in place to cover the cost of any planes being grounded.
  - Consider setting up an alliance with an airline located in the country in question, with the service being offered in that airline's name but with a codeshare arrangement.
- Risk **retention**
  - Accept the possibility that airports may not be properly maintained or planes may be grounded, and any accompanying costs.

Answer to Interactive question 11

11.1 Business risks

These are risks that LP's performance could be better or worse than expected.

The new business venture to sell clothes on the internet using 3D models to display the clothes.

There is the risk that demand will be far short of that anticipated or that costs of developing the internet site will significantly exceed budget.

LP should have assessed the 3D project for feasibility. Budgets should have been established and actual expenditure regularly compared with budgets. If actual expenditure is unavoidably and significantly in excess of budget, the board should consider whether the project should continue. Thorough testing procedures should have been built into the plan, and these should ensure that the website is capable of coping with anticipated demand. Once the website is

operational, LP should monitor the level of sales generated by obtaining customer feedback through the site, and comparing sales generated with the costs of keeping the website updated.

Product obsolescence

The decision to lengthen the time of sale for each product may appear to decrease development costs. However, the board of LP must also take into account demand for the goods. The fashion industry tends to issue new clothes and designs every few months and, certainly in temperate climates, fashions will change according to the season. There is a risk that not amending the style of products sold will reduce sales far in excess of the reduction in expenditure. The overall going concern of the company may also be adversely affected if customers perceive the clothes to be 'out of date' and change to other suppliers.

LP should monitor the performance of products in detail, and look for evidence of falling sales and other signs that its products are viewed as old-fashioned, for example adverse customer or press comment. The board should also consider whether work on developing new products should continue to some extent, so that new lines can be launched quickly if demand falls.

New competition

The new company PVO appears to be aggressively attacking LP's marketplace position. While the overall effect of the new competitor is difficult to determine, having a new range of clothes available is likely to attract customers with little, if any, brand loyalty to LP.

LP should make sure that competitor activity is carefully monitored and responses are made to known or predicted competitor activity, for example, an advertising campaign to counter new products being launched by the competitor. LP's board should also review very regularly the performance of products which are most vulnerable to competitor activity and decide whether to invest more in these or concentrate on other, less vulnerable products.

11.2 Part (b)

Provision

According to IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, a provision shall be recognised when:

- An entity has a present obligation as a result of a past event.
- It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation.
- A reliable estimate can be made of the amount of the obligation.

If these conditions are met, then a provision must be recognised.

The assessment of a provision for a legal claim is always a difficult area as it will be based on the evidence available but it could also be argued that any provision or disclosure could be prejudicial to the court case itself.

In this case, it would appear that the lawyers and management are fairly certain that damages and costs will be payable. The problem is the amount of any provision to be made. As there is a timescale involved here, the first stage will be to calculate the present value of each of the outcomes. Management have also assigned probabilities to each of the three possible outcomes, so a further decision must be made as to whether to calculate an expected value or take the value of the most likely outcome. IAS 37 states that where a single obligation is being measured, the individual most likely outcome may be the best estimate of the liability, although in some circumstances, the range of outcomes may mean that a higher figure is required.

Outcome	£'000	Discount factor @ 10%	Present value £'000	Probability	Expected value £'000
Best	300	1/1.10	273	30%	82
Most likely	900	$1/1.10^2$	744	60%	446
Worst	2,500	$1/1.10^3$	1,878	10%	188
					716

IAS 37 requires the estimated value of the provision to be the amount that the entity would rationally pay to settle the obligation. Arguably, in this case that could either be £744,000 as the most likely outcome or £716,000 as the expected value. As the directors are likely to want as low a provision as possible, they are likely to choose the expected value.

1 ANG

1.1 Risk management structure

The organisation needs a structure **to facilitate and communicate information about risks**. A system such as an intranet or groupware product would be suitable, as it connects all the individuals in an organisation, allowing access to shared databases where information about risks can be stored.

Resources

Sufficient resources are required to support **effective risk management**. This means that the board of an organisation must allocate **an appropriate budget for risk management**, and then the budget should be spent on appropriate areas. The appointment of a risk management officer will help to ensure that budgeted amounts are spent appropriately.

Risk culture

The **culture** of the organisation should be developed as far as possible to ensure employees are **aware of risk and to act to avoid risks where possible**. Having a risk avoidance culture will help to ensure that management decisions taken focus on, and avoid, important risks.

Tools and techniques

Appropriate tools and techniques should be available in the organisation to enable **the efficient and consistent management of risks across an organisation**. Tools and techniques available may include obtaining **appropriate insurance** against risks and having **a clear risk management policy in place**.

1.2 Avoidance

In this situation, the organisation attempts to determine whether the possible **losses avoided from not undertaking a risky activity are greater than the advantages that can be gained from carrying out the activity**. If the losses avoided appear to outweigh the benefits of carrying out the activity, then the activity may not take place. In an extreme situation, entire sections of the business may be closed down if the risk or loss is considered to be too great.

Reduction

Risks are avoided in part but not reduced to zero. For example, the risk of launching a new product can be reduced by obtaining market research on possible demand for the product prior to manufacture and launch.

Risk reduction will also involve **contingency planning** to ensure that **if a risk does crystallise, the damage from that risk is minimised**. For example, most companies will have a contingency plan against their computer systems failing. Files will be backed up regularly, and alternative processing locations will be available if one centre becomes unavailable, eg, due to fire or flood.

Acceptance

Risk retention is where the **organisation bears the risk itself**. This means that if the unfavourable outcome occurs, then the organisation will suffer the full loss of that event.

Risk retention normally occurs in two situations. First, where some **risk occurs** which the organisation's **risk management policy did not detect**. Second, where risk was **classified as insignificant** or **the cost of eliminating the risk** was deemed to be **too great compared to the likelihood of that risk occurring**.

Risk retention may also involve **self-insurance**. This means that funds are placed into some fund against risks actually occurring.

Transfer

The last risk management strategy is to **transfer the risk to a third party**. The most commonly used risk transfer policy is to take out **insurance** against a risk occurring. However, **risks may also be transferred to other third parties, often without the knowledge of that party**. For

example, there may be a minimal risk of errors occurring in some software. The cost of carrying out additional testing may be more than any compensation that may be payable if the error occurs and the customer makes a successful complaint. In this situation, risk has been transferred to the customer without the customer's knowledge.

1.3 Transfer

The **overall risk management strategy** of ANG appears to be one of **risk transfer**. This is the policy adopted by most businesses and is wholly **appropriate**, given that the **likelihood of many risks occurring is low; but if they do occur, then significant expenditure would be involved**. For example, if a load did fall off one of ANG's lorries, then the damage caused could be considerable, not only to the load itself, but also to other vehicles, people and even the roads being used. **ANG would not be able to operate legally without this insurance**, and so it is essential to obtain it.

Insurance

Whether ANG needs to insure against **damage to roads, bridges** and so on is unclear. The Government of the country is normally responsible for maintaining the transport infrastructure. ANG could probably withdraw this insurance and effectively **transfer the risk to the Government**. Some cost savings would accrue from this move.

Self-insurance

It appears that ANG effectively **self-insures against loss of vehicles** in respect of being able to provide a replacement vehicle at short notice. This may be acceptable in the case of individual losses. However, it may be **inappropriate** in situations where, for example, **a significant number of ANG's vehicles are destroyed** in a fire or flood. Where haulage contracts are signed for time-critical delivery of goods, then some **reciprocal agreement with another haulage company may be appropriate**.

Avoidance

The decision by ANG to **avoid risk** completely in **the transfer of hazardous materials** seems sensible. There has been some bad publicity about the transfer of radioactive goods by road, and the potential for claims, particularly if an accident occurred in an area of high population density, could be excessive and the damage to ANG's reputation would be considerable. In the case of explosives, ANG would need to **ensure** that the contract for carriage clearly stated that the **owner of the goods was responsible for insurance**. ANG may also want to obtain a copy of the insurance contract to confirm this.

Risk acceptance

There appears to **be some risk in purchasing the transport planes** prior to any market appraisal of the new venture. Normally the **risk** of a new venture would be **reduced by carrying out market research prior to significant expenditure being incurred**. The board would usually be advised to check whether there was a demand for this service prior to expenditure being committed.

Published accounts, internal accounts and budgets are a useful source of information. The more carefully costs are allocated to each department, the easier it should be to calculate additional costs that would be incurred in a given emergency, which budgets will be affected and how quickly necessary funds can be made available.

Detailed plans of site and buildings will show potential bottlenecks in fire escape routes, obstructions which might create difficulties for fire engines; and problems of access, which could occur for both the site and its neighbours from fire, explosion or escaping gas.

Physical inspection of buildings and machines (and perhaps of personnel, in the medical sense, and of their working practices) should take place on a regular basis.

2 HOOD

2.1 Risk can be defined as the possibility that events or results will turn out differently from what is expected.

The risks facing the HOOD Company are outlined below.

Operational risks

These are risks relating to the business's day to day operations.

Accounting irregularities

The unexplained fall in gross profit in some stores may be indicative of **fraud** or **other accounting irregularities.** Low gross profit in itself may be caused by **incorrect inventory values** or loss of **sale income**. Incorrect stock levels, in turn, can be caused by **incorrect inventory counting** or **theft of inventory** by employees. Similarly, loss of sales income could result from **accounting errors** or employees **fraudulently removing cash** from the business rather than recording it as a sale.

Systems

Technical risks relate to the **technology** being **used by the company** to run its business.

Backup

Transferring data to head office at the end of each day will be inadequate for backup purposes. Failure of computer systems during the day will still result in loss of that day's transaction data.

Delays in inventory ordering

Although stock information is collected using the EPOS system, reordering of inventory takes a significant amount of time. Transferring data to head office for central purchasing may result in some discounts on purchase. However, the average 10 days before inventory is received at the store could result in the company running out of inventory.

Non-business risks

These are risks that arise for reasons beyond the normal operations of the company or the business environment within which it operates.

Event

HOOD may be vulnerable to losses in a warehouse fire.

Business Risks

External risks relate to the business; they are essentially uncontrollable by the company.

Macroeconomic risk

The company is dependent on one market sector and vulnerable to competition in that sector.

Product demand

The most important social change is probably a change in fashion. HOOD has not changed its product designs for four years, indicating some lack of investment in this area. Given that fashions tend to change more frequently than every four years, HOOD may experience falling sales as customers seek new designs for their outdoor clothing. HOOD may also be vulnerable to seasonal variations in demand.

Corporate reputation

Risks in this category relate to the overall perception of HOOD in the marketplace as a supplier of (hopefully) good-quality clothing. However, this reputation could be damaged by problems with the manufacturing process and a consequent high level of returns.

Profiling

By identifying and profiling the effects of the risks, HOOD can assess what the consequences might be, and hence what steps (if any) are desirable to mitigate or avoid the consequences.

2.2 The potential effects of the risks on HOOD and methods of overcoming those risks are explained below.

Operational risks

Accounting irregularities

The potential effect on HOOD is **loss of income**, either from inventory not being available for sale or cash not being recorded. The overall amount is unlikely to be significant, as employees would be concerned about being caught stealing.

The risk can be minimised by introducing additional controls, including the necessity of producing a **receipt for each sale** and the **agreement of cash received** to the **till roll** by the shop manager. Loss of inventory may be identified by more frequent inventory checks in the stores or closed-circuit television.

Systems Backup

The potential effect on HOOD is relatively minor; **details of one shop's sales** could be lost for part of one day. However, the cash from sales would still be available, limiting the actual loss.

Additional procedures could be implemented to **back up transactions** as **they occur**, using online links to head office. The **relative cost of providing these links**, compared to the likelihood of error occurring, will help HOOD decide whether to implement this solution.

Delays in inventory ordering

The potential effect on HOOD is **immediate loss of sales**, as customers cannot purchase the garments that they require. In the longer term, if stock-outs become more frequent, customers may not visit the store because they believe goods will not be available.

The risk can be minimised by letting the stores order goods directly from the manufacturer, using an extension of the EPOS system. Costs incurred relate to the provision of internet access for the shops and a possible increase in cost of goods supplied. However, this may be acceptable compared to overall loss of reputation.

Non-business risks Event

The main effects of a warehouse fire will be a **loss of inventory** and the incurring of costs to replace it. There will also be a **loss of sales** as the inventory is not there to fulfil customer demand, and perhaps also a loss of subsequent sales as customers continue to shop elsewhere.

Potential losses of sales could be avoided by holding contingency inventory elsewhere, and losses from the fire could be reduced by **insurance**.

External risks Macroeconomic risk

The potential effect on HOOD largely depends on HOOD's **ability to provide an appropriate selection of clothes**. It is unlikely that demand for coats etc will fall to zero, so some sales will be expected. However, an increase in competition may result in **falling sales** and, without some diversification, this will automatically affect the overall sales of HOOD.

HOOD can minimise the risk by **diversifying into other areas**. Given that the company sells outdoor clothes, commencing sales of other outdoor goods, such as camping equipment, may be one way of diversifying risk. It can also look to reduce **operational gearing**, fixed cost as a proportion of turnover.

Product demand

Again, the **risk of loss of demand and business to competitors** may undermine HOOD's ability to continue in business.

This risk can be minimised by having a **broad strategy** to **maintain** and **develop** the **brand** of HOOD. Not updating the product range would appear to be a mistake, as the brand may be devalued if products do not satisfy the changing tastes of customers.

The board must therefore allocate appropriate investment funds to updating the products and introduce new products to maintain the company's image.

Corporate reputation

As well as **immediate losses of contribution from products** that have been returned, HOOD faces the consequence of loss of future sales from customers who believe its products no longer offer quality. Other clothing retailers have found this to be very serious; a **reputation for quality**, once lost, undoubtedly **cannot easily be regained**.

The potential effect of a drop in overall corporate reputation will be falling sales for HOOD, resulting eventually in a **going concern problem**.

HOOD can guard against this loss of reputation by **enhanced quality control procedures**, and introducing processes such as **total quality management**.

3 The LinesRUs Company

3.1 Risk identification

Risks cannot be managed without first realising that they exist. Managers need to maintain a **list of known or familiar risks** and the extent to which they can harm the organisation or people within it. Managers also need to be aware that unfamiliar risks may exist and maintain vigilance in case these risks occur. **Risk identification** is an **ongoing process** so that new risks and changes affecting existing risks may be identified quickly and dealt with appropriately, before they result in unacceptable losses.

LinesRUs appears to have **identified some risks** in its risk management policy. However, other risks do occur and managers within LinesRUs must be able to identify and respond to those risks quickly.

Risk assessment

It may be difficult to forecast the financial effects of a risk until after a disaster has occurred. Areas such as **extra expenses, inconvenience and loss of time** can then be recognised, even if they were not thought of in initial risk analysis. In a severe situation, damage to the company's reputation could result in LinesRUs becoming bankrupt.

In this situation, there has been a loss of confidence in the company, the extent of which may not have been foreseen. This has resulted in **additional expense in terms of lost passengers** – legal advice will be needed to determine whether LinesRUs is liable and whether the company's insurance meets this liability. It is also uncertain what the **additional time and cost of repairing the track** will be and whether LinesRUs can claim additional income for this work.

Sources of information to ensure that the risk can be minimised may include obtaining regular reports from train operators on the state of the rail infrastructure, and **monitoring news feeds** such as Reuters for early indication of potential disasters. LinesRUs should file appropriate **reports** of physical inspection of track as evidence of maintenance work carried out.

Risk profiling

This stage involves using the results of risk assessment in order to group risks into families. A consequence matrix is one method of doing this.

		Consequences	
		Low	**High**
Likelihood	**Low**	Loss of lower-level staff	Loss of senior staff
	High	Loss of suppliers	Major rail disaster affecting reputation of company Loss of computer data on maintenance work Loss of franchise

The analysis will be incomplete for LinesRUs because not all risks can be identified.

Risk quantification

Risks that require more detailed analysis can be quantified and, where possible, results and probabilities calculated. The result of calculations will show average or expected result or loss, frequency of losses, chances of losses and largest predictable loss to which LinesRUs could be exposed by a particular risk.

Unfortunately, **many of the risks facing LinesRUs** are **significant**. So while quantification can be enhanced by past events such as drivers falling asleep, they appear to be one-off situations, meaning that the actual event may not occur again. However, the adverse effects of the risk in terms of costs necessary to repair the rail infrastructure will be helpful, enabling LinesRUs to ensure that appropriate insurance is available – effectively guarding against loss by transferring the risk.

Risk consolidation

Risks analysed at the divisional or subsidiary level need to be **aggregated at the corporate level**. This aggregation will be required as part of the overall review of risk that the board needs to undertake. **Systems** should **identify changes in risks as soon as they occur**, enabling management to monitor risks regularly and undertake annual reviews of the way that organisation deals with risk.

There is no information on the **organisational structure** of LinesRUs. Given the risky nature of the company's business, LinesRUs is likely to be an independent legal entity to ensure that no other companies are adversely affected should LinesRUs go out of business.

3.2 Risk responses

Transfer

The risk is transferred to a third party. As noted above, this may not be possible if insurers are **not willing to accept the risk**. Alternative methods of risk transfer may have to be considered, including asking the State for some form of insurance.

Avoidance

LinesRUs may consider whether the risk can be **avoided**. However, given that maintenance work must continue and that errors are always possible, then the risk may **crystallise**.

Avoidance is not possible.

The only method of avoidance would appear to be **termination of operations**. This again may not be appropriate, given that this would close LinesRUs's business.

Reduction

The risk can be **reduced by taking appropriate measures**. In the case of LinesRUs, these will include **regular training** for maintenance staff. Management should use other methods such as newsletters to **raise awareness** of the importance of work being carried out and the potential consequences of error. There should be **maintenance and enforcement of appropriate disciplinary procedures** where breaches of work practices have been identified.

LinesRUs may also consider loss control options. These may include hiring of lawyers to defend LinesRUs and release of publicity material on the work of LinesRUs, showing the extent of maintenance work normally carried out. LinesRUs may also consider loss control options.

These may include hiring of lawyers to defend LinesRUs and release of publicity material on the work of LinesRUs, showing the extent of maintenance work normally carried out.

Acceptance

This is where the organisation retains the risk and, if an unfavourable outcome occurs, it will suffer the full loss. In the case of the rail crash, LinesRUs may have to **retain the risk** if **suitable insurance cannot be found**. Given the uncertainties regarding the costs resulting from the unfavourable outcome, insurers may be unwilling to insure for this type of event.

3.3 Both programmes would reduce the expected number of injuries.

From a financial perspective the expected savings would be as follows:

	Programme 1	Programme 2
Expected reduction in injuries	50	75
Cost per injury	25,000	25,000
Expected injury costs saved	1,250,000	1,875,000
Cost of programme	£1 million	£1.5 million
Financial benefits of programme	250,000	375,000

Both programmes are worth investing in from a financial perspective, as the expected cost savings from the lower number of injuries is more than the cost of the programme. In terms of which programme is better, the financial benefits of programme 2 are higher than programme 1, so at first sight, it seems that programme 2 would be the better of the two. It should be

noted that programme 2 is more risky than programme 1 however, as shown by the standard deviation, which is 80 for programme 2, compared to only 30 for programme 1. This means that under programme 2, the actual number of injuries in a particular year will vary from the expected number to a much greater extent than they would for programme 1.
The management will therefore need to decide if they wish to accept this higher volatility in exchange for enjoying a lower expected number of accidents.

4 Bush Council

4.1 Points in favour of Director of Operations' view Human error

Even if Bush has strong risk management systems in place, they may still be undermined by human error. An isolated lapse in concentration could result in an accident.

Credible policies

In order to minimise or eliminate risks, more onerous health and safety procedures may be introduced, including investigation of the factors that have led to injuries. However, staff **may not take these procedures seriously** if they feel they are impractical. Staff failing to operate onerous procedures properly may result in greater risk than staff operating less strict procedures effectively.

Points against Director of Operations' view

Complacency

The director's view appears to be **complacent**. The current injury statistics seem to be high. There is scope for reducing injuries towards zero, even if Bush can never prevent all injuries.

Reduction measures

Practical measures can be taken to reduce injuries. **Health and safety training** can be improved. Bush can introduce **requirements for staff** performing certain tasks, for example lifting heavy objects.

Negligence claims

The director's toleration of an 'acceptable' level of injuries may leave the council **vulnerable to legal claims**. Staff who have been injured could use the director's statements as evidence of a negligent attitude by senior management towards employee safety.

Points in favour of zero tolerance

Consequences of breaches

A strong argument in favour of zero tolerance is the **consequences of accidents**, possibly serious injury or death. Although a lapse may only have resulted in a minor injury on one occasion, the same lapse another time could have much more severe consequences.

Duty of council

However health and safety law is drafted, the council has a **clear moral duty** to ensure its employees' safety.

Safety culture

Aiming towards eliminating injuries can **help promote a strong culture of safety**. If staff understand that there is no such thing as an acceptable level of injuries, they are unlikely to become complacent and will take steps to reduce the level of accidents further.

Points against zero tolerance

Employee involvement in hazardous activities

The extent of the council's responsibilities makes it inevitable that some staff will become **involved in hazardous activities**. This will mean that there will always be a risk of injuries occurring, even if it can be reduced to very small levels.

Costs

Some risk prevention procedures, for example, requiring staff to wear cumber some clothing, may be **impractical**. The costs and time taken to investigate minor problems may be excessive.

4.2 Assurance work

- Review HR records of the number and type of accidents and injuries in the workplace.
- Review accident and injury records from a sample of locations and establish whether the categorisation of reportable and serious injuries is being applied correctly.
- Enquire whether the council has received any health and safety visits. Review documentation from any of these for evidence of serious accidents and injuries.
- Talk to employees to identify any accidents not recorded in accident book.

Chapter 8
Data analysis

Introduction

Learning outcomes

Examination context and syllabus links

Chapter study guidance

Learning topics

1 Data and analysis

2 Strategic, financial and operational data

3 Strategic data analysis

4 Financial data analysis

5 Operational data analysis

6 Sustainability reports

7 Big data and data analytics

8 Obtaining more information

9 Data analysis in the Strategic Business Management exam

Summary

Further question practice Self-test questions

Answers to Interactive questions

Answers to Self-test questions

Introduction

Learning outcomes

- Explain, demonstrate and evaluate how data from multiple sources can be selected, captured and analysed to provide management information, recognising the causes and effects of different types of data bias, data omissions, data limitations and data trends and applying an appropriate degree of professional scepticism
- Explain and analyse an organisation's current position and performance using both financial and non-financial data, presented in different formats, applying appropriate statistical and data analysis tools
- Explain and demonstrate how management information can be used to select from proposed strategies, taking account of limitations of data, including data bias
- Undertake appropriate quantitative and qualitative data analysis, statistical analysis, business analysis and financial statement analysis
- Assess and explain enterprise risk management, evaluating its framework and its benefits; and analyse, structure and assimilate data provided to evaluate business risks under a range of complex scenarios using appropriate statistical and data analysis tools, recognising various types of data bias in a variety of scenarios
- Explain financial and operational data and other management information, drawing inferences relating to its completeness, accuracy and credibility, as a basis for a meaningful analysis of the position, future prospects and risks for a business
- Demonstrate how suitable financial, strategic and operational analysis techniques can be used to analyse financial and operational data and to evaluate business position, prospects and risks, including the analysis and benefits of 'Big Data', artificial intelligence and machine learning
- Communicate an explanation (stating any reservations regarding transparency and objectivity of data and information) of the position, prospects and risks of a business, based on analysis of financial and operational data and information, including data analytics and assess the extent to which limited assurance and reasonable assurance engagements can identify and mitigate information risks in this context
- Apply professional scepticism to data sources and data capture in interpreting quantitative and qualitative information
- Analyse, structure and assimilate historic and forecast data provided to evaluate performance, position and risk using relevant statistical tools, data analysis and spreadsheets, recognising the sensitivity of forecasts to underlying assumptions and changes in estimates
- Assimilate, structure and analyse transactions and other granular data provided, using spreadsheets
- Evaluate the ethical implications of an organisation's selection, capture, analysis and use of data

Examination context and syllabus links

This chapter reviews data analysis skills that you have covered already in Business Strategy & Technology at Professional Level. Data analysis is even more important at the Advanced Level, because of the requirement to analyse more complex scenarios. In the exam, you may need to analyse financial and/or non-financial data, as well as financial statements.

It is important to note these different sources of data or financial information:

A company's financial **statements** are a vital source of information about the company's performance and so, in your exam, you should be prepared to analyse and interpret published financial statements. You should also be prepared to consider how well this information from a company's financial statements correlates with any other information you have been given about the company (including, possibly, management's own statements about the company in their 'Management Commentary' in an Annual Report). Equally, a company's integrated report could provide information

about its strategy and future prospects – but again it is important to consider how well this forward- looking information fits with the company's current position.

However, as well as interpreting published information about a business, you might also need to **analyse internal data** or **management information** in your exam. Remember, this data could be non- financial as well as financial. For example, if a company is using a balanced scorecard approach to performance measurement, it might be necessary to analyse its performance in relation to customer service, process efficiency, and learning and development, as well as its financial performance.

The reference to the balanced scorecard (which we discussed in more detail in Strategic performance management) highlights that you may need to undertake data analysis in the context of **performance measurement**. For example, you might need to analyse performance information in order to assess how well an entity is performing, for example, against its objectives, or against its key performance indicators (KPIs). In turn, performance measurement might involve **benchmarking performance** between different divisions or different companies, or it might involve analysing whether managers have achieved their performance targets and therefore qualify for a bonus.

Alternatively, you may find a situation where the management of an entity think that the entity is performing well, but analysis of the management accounting information does not support this. For example, the KPIs which management are monitoring may not cover the entity's **key processes**, and performance in those areas may be poor (while performance in the areas actually being measured has remained quite good).

However, the scenarios where data analysis could take place will not be limited to performance measurement only, and you should be prepared to face a wide range of scenarios in your exam. For example, other possible scenarios might include:

(a) **Valuation of a business**, for example, either by a company considering acquiring the business, or by a group considering the disposal of one of its companies. We will look at valuation methods in detail in Business and securities valuation of this Workbook.

(b) **Evaluation of capital projects**, for example, using net present value (NPV) calculations

(c) **Evaluation of proposals** to outsource a business division or a process

(d) **Evaluating performance of divisions or strategic business units**, for example, using return on capital employed (ROCE) or economic value added techniques

(e) **Cost analysis**, for example, the mix between fixed and variable costs (operational gearing), or issues around overhead apportionment across different products, and the link between costs and prices. Alternatively, cost analysis could be used in relation to strategic choices. For example, if an organisation wants to pursue a cost leadership strategy, how well do its costs – in relation to competitors' costs – fit with that strategy?

Please note, however, that this is only a small selection of the possible types of scenario you **might** face in your exam. The types of scenario where data analysis could take place will not be limited to these, though. Remember that, in Strategic choice, we discussed how potential strategic choices should be evaluated in relation to the suitability, acceptability and feasibility for an organisation.

Financial analysis, and an evaluation of an organisation's financial resources and financial constraints, is likely to be a key part of evaluating the feasibility of a proposed strategy.

Also, note that data analysis could be required more generally in the context of strategic management accounting issues: for example, in order to identify an entity's market share, or to calculate the rate of market growth.

Feedback from past exams shows that the lack of meaningful analysis remains a common weakness in candidates' scripts at Advanced Level.

A key point to remember is that the data analysis you perform should be linked to the wider strategy, position or issue in the scenario. Numbers will form part of the analysis, but the numbers should act as a 'peg' on which to hang discussion. You must demonstrate an understanding of the story behind the numbers. Explanation and evaluation of any numerical analysis is therefore an important element of data analysis.

Note also that learning outcome 8(a) identifies that you may need to undertake qualitative analysis as well as quantitative analysis. Assessing qualitative factors may be crucial in understanding the numbers in a scenario. For example, an organisation's revenue may be falling due to declining customer satisfaction with its products. In this context, note again the potential significance of 'big data' (for example, customer opinions from social media) which could be an important source of qualitative data for an organisation.

In Strategic choice we have already discussed some of the ways the insights gained from big data and data analytics can be a source of competitive advantage for organisations: through customer insight, product innovation and operational improvements. We will look at the characteristics of big data in more detail in this chapter, as well as reiterating the importance of 'data led' decision-making for organisations, rather than having to make decisions based on intuition or 'gut feeling'.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Data and analysis** In any organisation, managers need information for control and decision-making purposes. However, in order to get that information, the underlying data must be analysed in order to identify key patterns and trends. Analysing data is therefore vital for understanding how well an entity is performing.	**Approach** This section starts by looking at the data analysis skills you could be expected to demonstrate in the exam. Note in particular the need to apply the skill of professional scepticism and question the quality and reliability of any data you are given. **Stop and think** What impact can data bias have on decision making?	In the examination, you could be asked to assimilate data from internal and external sources; consider the implications of the data; consider the reliability of data and potential for data bias; and recommend how additional data may be obtained to enhance your analysis.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Strategic, financial and operational data** Data or information in reports may be strategic, financial or operational in nature. An entity's financial statements offer a vital source of information about its performance. Internal information (such as management accounts) is equally important; particularly if it includes a balance of non-financial performance indicators as well as financial ones.	**Approach** This section highlights the different types of data and reports (strategic, financial and operational) you could be expected to analyse. Read through the approach to analysing data in reports to ensure that you consider all relevant issues in the exam. **Stop and think** What are the key differences between strategic and operational reports?	In the exam, you may be required to undertake appropriate quantitative and qualitative data analysis, business analysis and financial statement analysis. You could also be asked to analyse financial and operational data and other management information as a basis for evaluating a business's current position and future prospects	
3	**Strategic data analysis** Strategic decision making is concerned with the formulation and review of strategies for achieving the objectives of the organisation. Analysis of strategic reports allows for the identification of issues relating to environmental change, the state of the industry and the level of competitiveness.	**Approach** This section suggests an approach to analysing strategic data. The strategic models are revision from previous studies but are now being used as a framework to analyse strategic data. Allow yourself time to work through all the examples and Interactive questions. **Stop and think** Which model is most appropriate to assess the level of competition and profitability in an industry?	One of the challenges in the exam may be to identify the strategic, long-term implications of information in a report or statement. Strategic models are not awarded marks in isolation but could be used to help you structure your answer and to analyse data.	**IQ1: Treadway** Using the scenario, you are asked to identify the strategic implications of the information. Consider the long- term strategy and objectives of the company. You also need to use your judgement and professional scepticism to identify any information that would help to provide a fuller picture.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
4	**Financial data analysis** When assessing company performance, analysis of financial statements and other such financial data is always a good starting point. However, it is important to be aware of the limitations of financial analysis which needs to be balanced by non- financial analysis.	**Approach** Ensure you are happy with financial analysis and that you know how to perform relevant ratios and calculations. This may mean revisiting previous studies. It is also important to be able to critique the data and demonstrate your understanding of the limits of financial analysis. **Stop and think** Why is profit not always the best measure of business success?	Exam questions will test your ability to identify strategic issues highlighted by financial data. You will be required to conduct financial analysis and comment on the implications of your analysis for business decisions.	
5	**Operational data analysis** Operational data analysis involves reviewing internally produced reports,	**Approach** When reading this section, make sure you understand how to use operational data to	In the exam, operational data analysis can be used to highlight problems with the efficiency and	**IQ2: The Eatwell Restaurant** In this question you are required to compare performance with
	many of which are non-financial in nature.	focus on three key issues for an entity; efficiency, effec-tiveness and cost control. **Stop and think** What are the conflicts between being efficient and effective?	effectiveness of the business. In turn you can use this analysis to identify areas of potential strategy improvement.	other restaurants by conducting analysis on the financial and operational data provided. You are also asked to identify other information you would need to enhance your analysis.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
6	**Sustainability reports** Sustainability reports are now becoming increasingly common due to both mandatory reporting requirements and voluntary disclosures. You must be familiar with the types of metrics used in such reports and be able to analyse them.	**Approach** Read though the section and note the additional challenges of analysing information in sustainability reports.	Exam questions may include sustainability information or sustainability reports and ask you to interpret them or discuss the information provided.	**IQ3: BPC** In this question you are given a sustainability report prepared for a fictional pharmaceuticals company called BPC. You are asked to evaluate the performance of BPC and discuss the report, including identifying any additional information you would like.
7	**Big data and data analytics** The volume and detail of data available to organisations is increasing ever more rapidly, and the concept of 'big data' reflects this, in conjunction with AI and machine learning. The ability to analyse increasingly large data sets, and to uncover previously hidden trends could enable organisations to make decisions which are better informed, and could also be a source of competitive advantage (for example, through	**Approach** Understand the value and opportunities that Big Data can bring but make sure you also appreciate the challenges which it could present for organisations. **Stop and think** Why is it important to apply professional scepticism to data?	Big data and data analytics are becoming increasingly important for businesses which is likely to be reflected in your SBM&L exam. You could be asked to communicate an explanation of a business's current position and future prospects based on the analysis of financial and operational data and other information available, including 'big data', artificial intelligence and machine learning. You should also be able to question the reliability of data	
	having a superior understanding of customer needs andbehaviours).		analysis being aware of how wrongconclusions can be reached.	

CHAPTER 8

Topic	Practical significance	Study approach	Exam approach	Interactive questions
8	**Obtaining more information** Data analysis may be weakened as a result of incomplete or unreliable source information. The accountant should always consider whether the quality of information, and therefore analysis, can be improved.	The issues of additional information requirements and gaining assurance over information are addressed in this section. The syllabus specification grid suggests that assurance could beworth up to 10% themarks in the SBM&L exam. Although we cover assurance in other chapters in relation to specific issues, this chapter covers the core material about assurance engagements, so make sure you read this section carefully.	In the exam you may be required to assess the completeness, accuracy and credibility of the data and management information available. You mayalso be asked to communicate any reservations about the transparency and objectivity of data and information provided. Regarding assurance, it is certain to appear in at least one of the two exam scenarios. Whilst practising assurance style questions is essential, rememberthat SBM&L is an open-book exam sobe sure you have access to different assurance questionsin the exam to provide you with inspiration.	**IQ4: Company- wide cost control** This interactive question is good practice of assurance issues. It asks you to consider using either an assurance report giving a conclusion or an 'agreed uponprocedures' assignment.
9	**Data analysis in the Strategic Business Management exam** A lack of meaningfulanalysis is one of the most common weaknesses in candidates' answers. It is important to evaluate data in order to draw meaningful conclusions and recommendations that may assist in	**Approach** This is an important section, so work through it carefully. You should be familiar with the 'What – How – Why –When – So what' approach from your previous studies, but evidence from past exams suggests that students don't always apply the model effectively.	Read carefully through the key weaknesses in answers so you know what to avoid.To improve you answers, revisit the recommended approach in order to get a balance of numerical and descriptive analysis.	**IQ5: WG plc** The requirement simply asks to you analyse the main issues facing WG. This task involves analysis of strategicand operational information presented in the scenario, in order to reach meaningful conclusions about the key problems the company is facing.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
	strategy development. Datain exam exhibits may be presented in different formatsincluding spreadsheets, datatables, graphs and charts.	As a result, there is alack of meaningful analysis. Answering the Interactive questions and Self-test questions for this chapter is particularly important. **Stop and think** What is the best wayof presenting your numerical analysis?		

Once you have worked through this guidance you are ready to attempt the further question practiceincluded at the end of this chapter.

1 Data and analysis

Section overview

This section considers the problems with using information in reports or statements, because of the characteristics or quality of the data in them. Professional accountants have to use their common sense and judgement when they analyse data. They are often required to draw conclusions or make recommendations on the basis of information in business reports and financial statements. The analysis of such data is normally both quantitative and qualitative. It is important that accountants should be aware of the limitations of any data they are using when they make such conclusions or recommendations.

The word 'data' has several meanings. It is commonly associated with input to a computer, or 'raw data' which is processed to obtain meaningful information. For the purpose of this chapter, a useful definition of data is: "Facts from which other information may be inferred".

Professional accountants are often presented with reports and statements, from which they are expected to identify issues and draw conclusions. In other words, they have to analyse the data and consider its implications.

Reports and statements vary in nature. They may be **internally produced** business reports or financial reports, as well as published financial statements:

(a) Internally produced business reports may cover internal operational issues, such as:

- performance reports; or
- external issues relating to markets and competition, or the business environment generally.

Internal reports may be produced by any department section or unit of the business and may contain historical data or forward-looking forecasts and plans.

(b) Internally produced financial reports may be management accounting reports, particularly performance reports on costs and profitability. The nature of management accounting reports varies with the type of business and the type of cost and management accounting system in use.

Data may also be provided in **externally produced reports**, such as reports by consultancy firms, government departments and international bodies.

1.1 Requirements for data analysis

The Strategic Business Management & Leadership examination expects you to be able to do the following:

(a) Study data on any business-related or finance-related topic, from internal or external sources.
(b) Consider the implications of what the data appears to show, make inferences and draw tentative conclusions.
(c) Consider the reliability of the data, and therefore your confidence in the conclusions you have drawn.
(d) Where appropriate, recommend how additional data may be obtained to test the validity of your conclusions: where information may not be conclusive, the challenge is

to identify what more you need to know and how to set about finding it.

This chapter does not set out to provide more technical content and knowledge. Instead, it suggests methods of approaching data analysis and using the technical knowledge that you already have.

The skills required for data analysis may be summarised as follows:

(a) choosing analytical tools that are appropriate in the context of the question, eg, financial ratios, KPIs, breakeven calculations

(b) carrying out the relevant calculations

(c) interpreting the resulting information to demonstrate an understanding of the story behind the numbers and communicating that analysis succinctly

(d) analysing the wider consequences and implications of the numerical data; for example, a fall in production costs, perhaps harming product quality

exercising judgement to draw conclusions and/or produce sensible recommendations, taking potential data bias into consideration

looking beyond the information provided at what additional information may be useful to generate a better analysis/understanding and at any reservations regarding the data/techniques/assumptions applied

linking different pieces of data to explain trends or outcomes highlighting weaknesses or omissions in the data provided

discussing cause and effect relationships – eg, identifying underlying causes of changes in the data

Professional skills focus: Assimilating and using information

You need to be able to interpret information in various formats to draw conclusions and develop solutions. To demonstrate this skill effectively you need to have a good approach to data analysis, combining your technical knowledge with a review of the scenario, whilst managing the time constraints of the exam.

1.2 Characteristics of data

A useful starting point is an appreciation of the characteristics or qualities of data. Information should be reliable; but data often **lacks reliability**, for any of the following reasons.

(a) **Incomplete**. Data is often incomplete, in the sense that it does not tell the user everything that he or she needs to know. Incomplete information is a source of evidence, but not enough for the evidence to be conclusive. The user should want to learn more before reaching a conclusion.

Incompleteness of data can be a particular problem with external reports, whose purpose may be only indirectly related to the interests and concerns of the report user.

(b) **Lacks neutrality**. Information may lack neutrality. A report may contain opinions and recommendations that reflect the opinions and bias of the report writer. Professional scepticism may need to be applied in interpreting such data or placing reliance on it.

(c) **Inaccurate**. The data in a report or statement may be inaccurate, or the user of the report or statement may suspect that it is inaccurate. Alternatively, data may be insufficiently accurate for the requirements of the user. Without confidence in the accuracy of data, the user cannot make reliable conclusions.

(d) **Unclear**. Information may lack clarity, especially when it comes from an external source. Lack of clarity may be due to:

(1) **poor expression of ideas** in an external report by the report author, or lack of clarity about the assumptions on which information in the report is based

(2) **deliberate lack of transparency** by the information provider. An example of this might be press releases by a competitor organisation, whose statements about a particular item of news may be deliberately obscure without being untruthful

(e) **Historical**. Historical data may be used to make forecasts or conclusions about the future. However, any historical-based prediction is inevitably based on the assumption that what has happened in the past is a valid guide to what will happen in the future. This may not be the case.

(f) **Not up to date**. When events in the business environment are changing rapidly, information may get out of date very quickly. There is a risk that any data in a report or statement is no longer accurate because it is no longer up to date.

(g) **Not verifiable**. Some data or information may not be verifiable. Management may want corroboration of a fact or allegation, but there may not be an alternative source for checking its accuracy. This is often the case in employment disputes at work: two individuals may contest claims made by the other, and there may be no way of checking whose allegations are correct.

(h) **Source**. Information may come from a source that is not entirely reliable. This may be a particular problem with secondary data from external sources.

Accountants must use the data that is available to them, even though it is not 100% reliable. They may have to qualify their opinions or judgements according to their view about how much reliance they can place on it. A major problem is often incompleteness.

Data may lack relevance as well as reliability.

(a) There may be a risk of drawing unjustified conclusions from available data, and interpreting data in ways that the facts do not properly justify. The data user may imagine that there is evidence to justify a conclusion, when the evidence from the data is not at all conclusive.

(b) With financial data, there may be a risk of using financial statements prepared under the accruals concept to make conclusions when cash flows and incremental costs should be used.

An accountant may want to use data to make comparisons, such as comparing the performance of different companies or different segments of a business. Unfortunately, data may not be properly comparable. For example, comparing sets of data about the performance of two rival companies may not be entirely reliable because the available data for the two companies:

- has been collected in different ways;
- is based on different assumptions; or
- is presented differently, under different headings.

Note: These issues around the characteristics of data also highlight the importance of **professional scepticism** when analysing data. Professional scepticism is one of the professional skills you will be expected to demonstrate in your SBM&L exam, and some of the ways you could demonstrate it are: recognising bias, or varying quality in data and evidence; identifying gaps in evidence; or identifying inconsistences and contradictory information.

1.3 Making judgements about the quality of data

If the information is not entirely reliable, you may have to make a judgement on the degree to which it may be trusted. It is not sufficient to decide that information is either 'reliable' or 'unreliable': there are **degrees of reliability** between the two ends of the scale.

Having made a judgement about the reliability of data, the accountant must:

- reach a conclusion, but possibly with some reservations; or
- consider what additional information can be obtained before making a firm conclusion.

Professional skills focus: Applying judgement

One of the skills tested in the ACA exams is your ability to apply judgement by identifying omissions,

inconsistencies or bias in data. You should therefore apply professional scepticism to data sources and data capture when interpreting quantitative and qualitative information. When analysing data in the exam be prepared to make judgements about the quality or source of the data and factor this in to your conclusions.

Context example: Like for like retail sales

In its report *Audit Insights: Retail* (2013) the ICAEW Audit and Assurance Faculty notes that, although like for like sales figures are the most prominent KPI for the retail sector, they are not comparable on a consistent basis.

Instead, retailers use their judgement to calculate movements in like for like sales by identifying and removing any distorting elements from the calculation. There is no standard basis for calculating like for like sales, nor is there any standard agreement as to what factors should be classified as 'distortions' and therefore excluded from like for like sales.

Figures may not be calculated in the same way between different retailers. Perhaps even more importantly, the basis of the calculation may change from year to year within the same business.

As the report points out, "Without an understanding of the adjustments and judgements in each case, the public may place greater significance on comparisons between like for like sales than is warranted".

Factors that may lead to stores being excluded from like for like sales include:

- stores undergoing a refurbishment or a refit
- stores undergoing a resize (eg, where adjustment to floor space is greater than 5% of the original floor space)
- stores due to be closed in the near future
- stores opened during the period under review
- stores suffering from a major disruption to trading (eg, flood; fire; roadworks in the immediate vicinity leading to a significant decline in footfall; redevelopment; or opening of a direct competitor's store nearby)
- impact of one-off events (eg, impact of the Olympic Games on sales in London in 2012)

The judgement involved in determining which stores classify as 'like for like', and the lack of standardisation, means the performance measure is less valuable to the public than it might otherwise be.

The ICAEW report suggests that the fundamental judgements required to develop an approach to like for like sales in each period depend on a fully developed understanding of sale activity across the business. Unfortunately, however, one reason for the variations in like for like calculations may simply be the range of data available to different retailers.

Finally, the report suggests that the usefulness of like for like sales as a performance measure is further reduced because the core relationship between like for like sales and profitability has changed, due to increasingly widespread deep discounting. As a result, sales numbers can be pushed upwards at the expense of profitability. But retailers rarely link data on profitability (such as movements in profit margins) to like for like sales.

In summary, the report suggests that, 'Greater transparency around the method used to calculate like for like sales, for example disclosure of calculation methods alongside the results, would benefit retailers, investors and customers alike'. The key question, however, is whether retailers could collectively develop, and implement, an agreed calculation standard.

Implications for assurance

In the scenarios described by the ICAEW report, the like for like sales figures appear not to be an audited section of the retailers' annual reports. Nonetheless, trends in sales highlighted by the like for like figures could be useful for readers of the accounts in understanding the performance of the retailers.

In this respect, given that the like for like sales figures are a prominent KPI, it could be beneficial for them to be subject to an external assurance report which, for example, could evaluate the methodology used to calculate the figures, ensure that the figures have been presented in accordance with the methodology, and ensure that the methodology remains consistent from one period to the next within the same entity.

Note: These considerations for an assurance engagement are the same as the ones we highlighted in Strategic performance management in relation to assurance over KPIs.

This last point about consistent methodology is crucial for ensuring the comparability of the figures from one period to the next. If the basis for calculating the KPIs changes over time, then any apparent trends in the figures could be a reflection of the changes in the methodology, rather than trends in underlying performance.

1.4 Other aspects of data analysis

It has already been suggested that an important aspect of data analysis is an understanding of the limitations of the data or information available for analysis. Other issues may also be relevant for consideration.

(a) Materiality and priorities

When analysing data, it may be necessary to keep a sense of perspective. Some issues may be relatively insignificant and so immaterial for the purpose of analysis.

When a report or statement raises several different issues, you may need to identify which is the most important, and prioritise them.

(b) Uncertainty

When available data consists of numerical estimates, you should question the accuracy and reliability of the estimates. It may be possible to undertake some sensitivity analysis, such as considering a 'worst possible' scenario or a 'best possible' scenario, and commenting on these, as well as the 'most likely' scenario (based on the estimates provided).

1.5 Data and assurance

In section 1.3, we noted that accountants may need to make judgements about the quality or reliability of data. In essence, data only becomes valuable to an entity when it is converted into actionable information – which can be used to drive revenue goals, increase cost efficiencies, or inform business decisions more generally. However, before entities convert data into information they need to be confident in the data and the processes which produce it.

Assurance reporting can be used to help provide this confidence. An independent professional accountant, with relevance experience, applying the highest standards to examine data, processes or information, and expressing an assurance conclusion on them, can provide a strong signal of reliability.

We look at assurance in more detail in section 7of this chapter, but the following extract from the ICAEW *Assurance Sourcebook – A Guide to Assurance Services* provides a useful overview summary:

'Owners, management, investors, government, regulators and other stakeholders need to rely on the successful conduct of business activities, sound internal processes and the production of credible information. These operational and reporting processes enable users to make decisions and develop policies. Confidence diminishes when there are uncertainties around the integrity of information or of underlying operational processes.'

There could be a range of potential subject matters over which different stakeholders might require assurance, but they can be summarised into three broad categories:

- Data – extracted or calculated volumes, values or other items
- Processes and controls – a series of organised activities designed to meet defined objectives
- Reporting – all, or part, of a written report which may contain a combination of data, design of processes and narrative, including any assertions the reporting organisation has made

2 Strategic, financial and operational data

Section overview

Data or information in reports may be strategic, financial or operational in character. This section provides a brief overview of the types of report you may be expected to analyse or comment on.

You may be required to analyse information in a report or statement, and state opinions or reach judgements on the basis of what the report or statement contains. A suitable approach depends on the nature of the report or statement. These may conveniently be classified into three types:

(a) strategic level reports

(b) financial reports

(c)operational reports

These classifications are useful for considering an approach to analysis, but it is possible to have strategic level financial reports and financial reports on operational aspects of a business.

2.1 Strategic level reports

Strategic level reports contain information that is used to make strategic judgements or to guide strategic thinking by senior management. Some strategic reports are produced internally, but many are reports produced externally, which may have some relevance for an organisation's strategic thinking and choice of strategies.

Examples of strategic reports are:

(a) a report produced by an independent research organisation or consultancy firm on the state of a particular industry and the future challenges facing that industry

(b) a government report on the national economy and on monetary and fiscal policies for management of the economy

(c) a report from an international organisation such as the World Trade Organization on the current state of international trade

(d) a general report on the business and financial markets infrastructure in a particular country or region

(e) a market research report from an independent research agency into conditions in a particular product-market area

These are examples, but there are other types of report that may contain information of strategic relevance and interest. What they have in common is that the information within the report can be used to formulate strategic thinking within an organisation.

2.2 Financial reports

Financial reports can have either strategic or operational value.

(a) Published reports and accounts of rival quoted companies can provide useful insights into competitor organisations – their strategies, revenues, profitability. Comparisons of a business with a rival company may suggest areas of difference where one company or the other appears to have a competitive advantage or enjoys superior performance.

(b) A company should not have to rely on its own published financial statements for relevant information. More detailed financial reports should be produced internally for management. These may be strategic reports, linked to aspects of strategy but financial in nature. Most organisations have regular reports relating to annual budgets and monthly or quarterly budgetary control reports. Other financial reports may be operational in nature, such as reports on product costs and profitability, segmental profitability reports or customer profitability analysis.

2.3 Operational reports

Accountants may produce or be required to analyse a range of operational reports. Accountants may produce non-financial reports as well as financial reports, or reports that mix financial and non- financial data. In your examination, you may be required to analyse the information in an internally produced performance report, which may have implications for the efficiency or effectiveness of operations. Reports could include spreadsheet data, data tables, graphs and charts.

2.4 An approach to analysing data in reports

A basic approach to analysis should be the same for each type of report:

(a) assess the information in the report or statement

(b) identify the issues that it raises

(c) consider the implications

(d) consider the reliability of the data and whether it is sufficient to make conclusions with confidence

(e) consider the additional information that should be obtained before reaching a conclusion or making a recommendation

(f) when reaching conclusions or making recommendations, qualify your views by recognising the limitations of the data on which your views are based

The approach to analysing data should differ to some extent according to the nature of the report or statement: strategic, financial or operational. This is because the issues that it raises may be strategic, financial or operational in nature.

3 Strategic data analysis

Section overview

This section suggests an approach to analysing strategic data. The challenge in an exam scenario may be to identify the strategic implications of information in a report or statement, and this section highlights how you could use strategic models as a way of identifying key issues.

Strategic decision-making is concerned with the formulation and review of strategies for achieving the objectives of the organisation. In a rational approach to planning, strategies are developed after analysing the external business environment and the internal resources and competences of the organisation.

If you are required to analyse a strategic level report, you may be expected to identify any of the issues relating to environmental change, the state of the industry, competitiveness, resources and competences.

3.1 Changes in the business environment: PESTEL analysis

A report may contain strategic information about changes in the wider business environment. In such a context, PESTEL analysis can provide a useful framework when reading a report and considering its strategic implications. Changes in the environment may prompt a change in strategic thinking.

(a) **Political change**. Political change may have implications for business and business strategy:

(1) A change of government could have implications for the Government's fiscal policy and spending plans. This may be significant for companies that earn substantial revenues from government contracts. In the UK, government policy towards privatisation of public services has implications for private sector service providers.

(2) Political change in another country may affect strategic plans for investing in the country.

Liberalisation of politics may attract more foreign investment: greater autocracy in government or the threat of nationalisation of foreign businesses is likely to deter foreign investment.

(3) International political cooperation may have implications for business: examples may be changes in international attitudes to free trade and free trade agreements, and international efforts to restrict opportunities for tax avoidance by international companies.

(b) **Economic change**. Changes in economic conditions have obvious implications for business strategy. As one example, the slow economic recovery after the global financial crisis in 2008 may have persuaded some companies to defer new investment decisions, whereas others may have had difficulty in obtaining new finance to invest.

(c) **Social change**. Social change may have implications for business strategy. For example, as a result of an ageing population, companies may be affected by changes in demand for certain types of product such as healthcare, and there may be implications for retirement age in the working population. Very high and sustained levels of youth unemployment could have implications for social unrest and security.

(d) **Technological change**. Some technological changes, with associated social change, continue to have a major impact on businesses, especially those producing technology-related products such as smartphones, tablets, broadband services and software products. With some technological changes, an important strategic concern is the speed of adoption by consumers, and so the need of companies to respond very quickly to changes as they happen.

(e) **Environmental change**. Environmental change affects most companies in some ways and to some extent, and many large companies have environmental policies aimed at reducing levels of pollution and waste. Changes in government attitudes to environmental protection, such as changes in carbon pollution regulation, 'green' energy sources, the use of fracking to extract shale gas and the use of genetically modified food products, can have long-term strategic implications for many companies in many different industries.

(f) **Legal change**. Legal and regulatory change can also have important strategic implications. In the UK, for example, it seems probable that the insurance industry has been affected by the development of a 'compensation culture' and increased legal actions for compensation by consumers.

The examples given here are indicative of issues that may be raised in a strategic level report. When change is identified, organisations should consider the implications of the change for strategy. When the report relates to the wider business environment, PESTEL is a useful checklist of areas to consider. It is a framework for analysis, however, and does not provide automatic answers.

Worked example: Energy costs

An accountant working for a leading German car manufacturer has read a report from a consultancy group about the future of energy and energy sources. The report includes analysis of two developments:

- Reports that the UK authorities are willing to permit energy exploration companies to tap shalereserves. This is seen as a key driver of falling energy costs in the UK over the next few years.
- A policy of the German Government to phase out nuclear energy by 2030 and replace it with renewable energy sources.

Requirement

What are the strategic implications of this information?

Solution

Some points you could suggest are:

Exploiting shale reserves in the UK will reduce energy costs in the UK, and the UK could presumably become an exporter of energy in the future.

The replacement of nuclear energy with 'green' energy might lead to an increase in energy costs in Germany.

Manufacturing companies such as car producers are likely to have high energy costs as a proportion of their total production costs. These changes could make German car producers less competitive than UK car producers, but there is insufficient information to assess the scale of the threat.

However, it may force German producers to consider the location of their production facilities and relocate out of Germany, to a lower-cost country.

3.2 Industry analysis

A strategic report may focus on conditions in a particular industry, rather than changes in the broader business environment. A report may indicate threats to the industry as a whole, or opportunities for the industry to develop and expand as a whole.

You may be asked to analyse a report on decline in a particular industry, where decline may be due to:

- limited natural resources on which the industry depends, and the challenge of securing supplies of essential resources
- overconsumption of resources and threats to sustainability of the industry
- decline in total market demand for the product
- the emergence of new products or services that threaten to make an entire industry obsolete: here the strategic challenge may be to redefine the industry in which a company operates

Interactive question 1: Treadway

Treadway Stores is a UK-based international supermarket group. The following information has been extracted from an internal report to management on the position of the group within its industry.

Until last year, the company invested heavily in new store space in all regions. Opening new stores had the advantage of helping the group to increase annual turnover. However, this was at the expense of smaller operating margins. More recently, new investment has slowed down: consumer

spending in UK supermarkets is expected to continue to grow over the next few years, but only at the rate of general price inflation.

Growth rates in Asia and the rest of Europe are better. In recent years, every £1 spent by the group in Asia has produced annual sales of £0.85, and every £1 spent in Europe outside the UK has produced additional revenue of £0.40.

There is strong evidence that consumers have become much more price conscious. Revenues of discount stores have increased sharply, and Treadway customers are now buying more low-price or discounted products. Treadway has responded to growing competition in the industry by hiring more staff to improve customer service, cut prices and change the products that it sells. Last year, profit margins fell to their lowest level in over 20 years.

The UK operation continues to invest in smaller local convenience stores, where average prices are 5% higher than in larger supermarkets, and the group is expanding its online shopping services.

Although online sales in food and drinks products have been good, the group is unable to compete successfully with Amazon in online sales of non-food products.

With the reduction in capital investment on new superstores, the group is now trying to make its existing stores more effective. A result of the decision to reduce capex is expected to be a significant increase in free cash flow.

Treadway also intends to improve return on capital employed (ROCE). Both ROCE and the company's P/E ratio are below those of major global competitors such as Walmart.

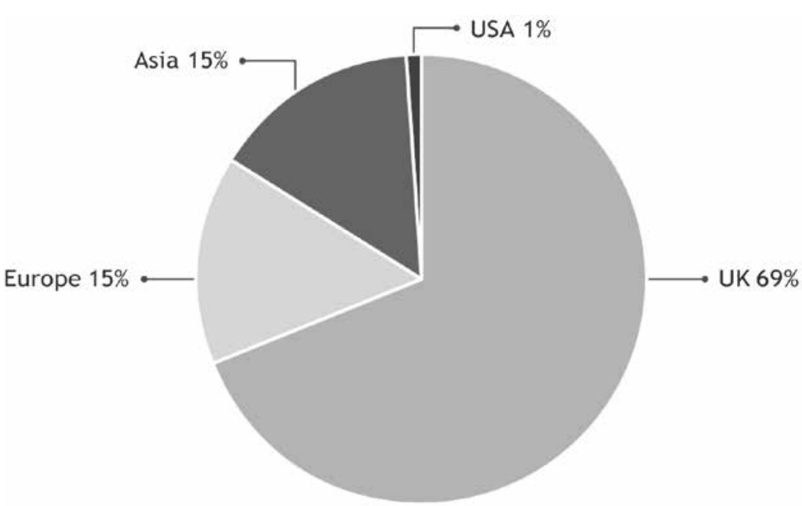
Requirements

0.1 What do you consider to be the strategic implications of this information?

0.2 What additional information do you think the group should try to obtain in order to carry out a review of current strategy?

Exhibit: Annual revenue split

Split of annual revenue



See **Answer** at the end of this chapter.

3.3 Competition analysis

Reports on competition within a particular industry or market may focus on profitability, revenues and market share. You may be required to comment on aspects of competition and profitability, and the implications for the future of the business.

Several models could provide a useful checklist of issues that may be relevant for analysis and comment.

(a) **Porter's five forces model** identifies five factors within an industry or market that affect the strength of competition within the market and so the potential for profitability. Profitability will be limited in markets where the following forces are strong.

(1) **Competition between** firms that are already in the market: both price and non-price competition affects profit margins.

(2) **Low barriers to entry**. When new entrants are able to enter a market easily, it will be impossible for existing firms to sustain high levels of profitability for long. High profits will attract new entrants, and the added competition will reduce prices and profit margins.

(3) **Supplier strength**. When a market has a small number of dominant suppliers, or a single monopoly supplier, costs of supply are likely to be high and opportunities for supply flexibility are low.

(4) **Buyer strength**. When a market is dominated by a small number of buyers, the buyers are able to put pressure on companies in the industry to sell to them at low prices. An example is the ability of large supermarket companies to demand low prices from their suppliers and squeeze profit margins in industries such as food manufacturing and farming.

(5) **Availability of substitute products**. Profit margins in a market may be low when consumers have a choice of available alternatives, and can switch between the different products or services. For example, prices of tickets to live entertainment events may be restricted by the alternative that consumers have to watch the event on subscription television.

Note: Although Porter's original model included these five forces, it has subsequently been amended to include a sixth force: 'complementors'.

(b) A strategic report may discuss a company's product portfolio.

The Boston Consulting Group (BCG) matrix provides a method of analysing the product portfolio of a company into cash cows, stars, question marks and dogs. A company needs a sufficient number of cash cows to generate profits and funding for new investments. It also needs 'stars' that currently require substantial investment, but are expected to be successful and the cash cows of tomorrow. For 'question marks', the strategic problem may be to decide whether to stop investing in the product and use resources elsewhere

(c) A strategic report may discuss the position of an individual product in terms of sales growth, profitability and investment requirements. **Product life cycle analysis** can be used to assess the position within its life cycle where a product has reached:

(1) Early introduction and early growth phases, where revenues are small, investment requirements are high, the product is making a loss and cash flows are negative

(2) A rapid growth phase where new investment is still required, but revenues grow strongly and the product eventually becomes profitable and generates positive cash flows

(3) A maturity phase, where the product becomes a cash cow

(4) A decline phase, where sales revenues fall, and a decision for the company is whether to withdraw from the product market, or whether to remain in the market, but operating at lower levels of output

The checklist of issues in the above list provides a basis for analysing strategic reports on competition within an industry and product-market area. As stated earlier, checklists do not provide answers, but a framework for analysis.

3.4 Risk analysis

Strategic data analysis typically involves analysis of strategic risk. Risk may be described as the risk to an organisation from developments in the broad business environment, the industry in which the organisation operates or the competitive environment, such as the risk from strategic initiatives by major competitors.

Where a report indicates the existence of a risk, you may be required to consider the:

- scale or significance of the risk;
- need for urgent action to address the risk; or
- potential implications of doing nothing about it.

Worked example: Ferry routes

In July 20X0, Ferry purchased exclusive rights to operate a car and passenger ferry route until December 20X9. This offers an alternative to driving an additional 150 km via the nearest bridge crossing. There have been several ambitious plans to build another crossing but they have failed through lack of public support and government funds.

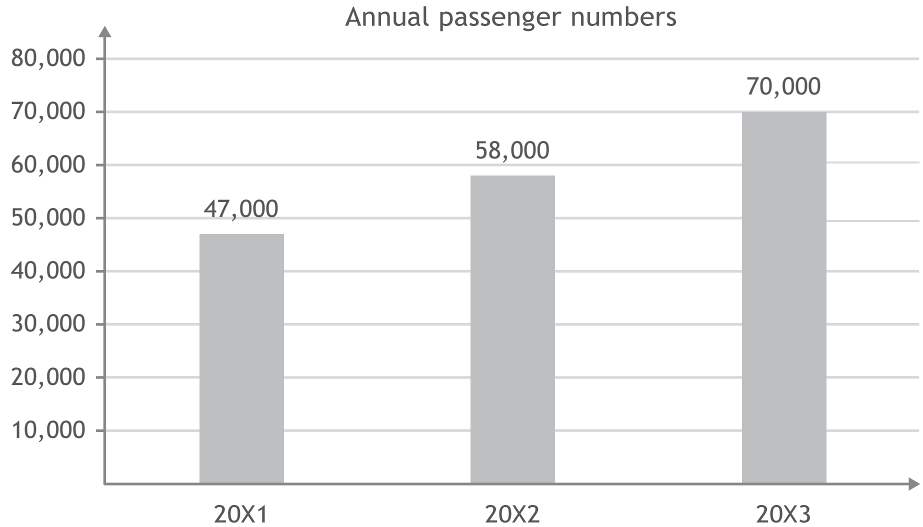
Ferry refurbished two 20-year-old roll on, roll off ('Ro-Ro') boats to service the route. The boats do not yet meet the emission standards of Environmental Protection Regulations which come into force in two years' time, in 20X6. Each boat makes three return crossings every day of the year, subject to weather conditions, and has the capacity to carry approximately 250 passengers and 40 vehicles. The service operates 360 days each year.

Hot and cold refreshments and travel booking facilities are offered on the one-hour crossing. These services are provided by independent businesses on a franchise basis.

Ferry currently receives a subsidy from the local transport authority as an incentive to increase market awareness of the ferry service and its efficient and timely operation. The subsidy increases as the number of vehicles carried increases and is based on quarterly returns submitted to the authority.

Ferry employs 20 full-time crew members who are trained in daily operations and customer service, as well as passenger safety in the event of personal accident, collision or breakdown.

The management of Ferry is planning to apply for a recognised Safety Management Certificate (SMC) in 20X5. This will require a ship audit, including the review of safety documents and evidence that activities are performed in accordance with documented procedures. An SMC valid for five years will be issued if no major nonconformities have been found.



Requirement

Identify and explain the business risks facing Ferry which should be assessed.

Solution

The following table summarises business risks that may be identified in the data:

Risk	Comments
Political and regulatory	Risk that the Government may decide to build a new bridge, in spite of previous failures Risk that local transport authority may remove subsidy
Environmental	Environmental regulations come into force in two years' time: risk that the boats will not meet minimum regulatory standards
Legal	The business is protected by exclusive rights that run out in about six years' time. Risks that rights will not be extended beyond December 20X9
Industry analysis	Is there sufficient demand for the service? Risk of insufficient demand Evidence: Lack of public support for bridge Annual capacity = 2 boats × 6 crossings per day × 40 vehicles × 360 days = 172,800 car journeys. Actual sales demand in 20X3 = 70,000 = 40.5% of capacity. Is this sufficient to sustain a profitable business, even allowing for future growth (20.7% in 20X3) Risks of high cost of health and safety. Risk of accidents and injury. Risk of failure to obtain Safety Management Certificate
Inadequacy of data	More information is needed about revenues, costs and demand forecasts in order to assess the business risk more confidently

3.5 Internal analysis: strengths and weaknesses

Although strategic data analysis may focus mainly on external analysis of the environment, industry and competition, internal analysis of resource strengths and weaknesses may also be relevant.

Data may indicate strengths or weaknesses in the resources and competences of an organisation, which can give them a competitive advantage over rival organisations, or expose them to serious competitive disadvantage.

Strengths and weaknesses could exist in any key resource, such as:

- intellectual property
- management
- location or distribution channels
- employee skills
- business experience

In some industries, **intellectual property** is a major strategic asset. Patents help to protect sales and profits against inroads by competitors, provided that the patent can be enforced effectively or until an improved technology is developed by a competitor – and patented.

When companies depend on the **knowledge and talents of individual employees**, they are exposed to the risk of defection by employees to rival organisations. During the early 2000s, for example, it was fairly common for 'star traders' in the financial markets to defect from one bank to another, to obtain higher remuneration, often taking a whole team with them.

Depending on the nature of a strategic report, you may find it useful to think about the implications of the information in the report using **SWOT analysis** – identifying internal strengths and weaknesses and external threats and opportunities that could have strategic implications for the organisation.

4 Financial data analysis

Section overview

Financial analysis of information in reports or statements covers issues such as profitability, revenue and costs; investment; cash flow; and funding and capital structure. You should be familiar with financial analysis from your previous studies, but you should expect an examination question to test your ability to identify potential strategic issues which are highlighted by financial data, as well as recognising any weaknesses in the available data itself.

At this stage of your studies, you should already be familiar with the basic tools of financial analysis, including key ratio analysis. If you are asked to comment on the implications of information in a financial statement or report, you will be expected to identify which ratios may be relevant and

interpret the significance of any ratio that you measure. Even so, these would be basic tasks at this level of your studies. You could be expected to analyse financial data about any of the following:

(a) the financial markets. You may be asked to comment on data about conditions in the financial markets, such as interest rates or exchange rates, and implications of changes in market conditions for the organisation
(b) revenue, profitability and costs – and pricing
(c) cash flow or liquidity
(d) capital structure

If you are given financial data for analysis, you should consider the adequacy or limitations of the information and be aware of what the information does not tell you. What is missing could be more important than what the report or statement contains.

(a) Data about profitability may present product profitability, when you should be more concerned with customer profitability, distribution channel profitability or market segment profitability.

(b) Data about profitability may be provided, when you should be more concerned about cash flow and funding.

(c) Cost and management accounting information may be presented in a traditional format, such as an absorption costing or marginal costing statement, when you may consider that another approach to presenting information is needed – for example, an activity-based costing statement, or information about particular aspects of cost that traditional statements do not analyse, such as quality costs.

The challenge with analysing financial information may be not so much to demonstrate your knowledge of financial analysis as to demonstrate your understanding of the limits of financial analysis when insufficient or inappropriate data is available.

Worked example: Wizard Ltd

Wizard Ltd is a specialist component manufacturer for the aerospace industry employing 54 people. It has two main customers located in North America. The relative success of Wizard over the last few years has attracted interest from a number of potential industry buyers. One of Wizard's main customers, Draco plc, is now considering making a bid for the entire share capital of Wizard, effectively bringing Wizard's services in-house. Draco is concerned that the specialist products that Wizard supplies it with allow it to charge, in the words of the Draco purchasing manager, 'outrageous prices'. The financial adviser to Draco has obtained the following information relating to Wizard.

Extracts from the financial statements of Wizard for 20X5

	$'000
Revenue	14,730
Cost of sales	8,388
Other costs	5,202
Profit before tax	1,140
Profit after tax	798
Dividend paid	390
Non-current assets	5,364
Inventories	1,392
Receivables	876
Cash	192
Payables	1,464
Equity share capital	600
Retained earnings	5,760

Information obtained from the Aeronautical Trade Association

Average P/E ratio (for quoted companies)	9.0
Average annual growth in reported post-tax profits (20X4–20X5)	3.0%
Average pre-tax profit margin	5.1%
Average pre-tax ROCE	13%
Average receivables days	78
Average payables days	34
Average revenue per employee	$154,200

The finance **director of Draco has provided the following summary of Draco's recent performance:**

	20X5 $m	20X4 $m	20X3 $m	20X2 $m
Revenue	58.75	55.60	50.30	50.50
Pre-tax profit	4.40	7.15	7.75	10.05
Dividend paid	0.40	2.50	2.50	2.50

Requirement

Analyse the financial position and performance of Wizard as at the end of 20X5.

Solution

Measure	Industry	Wizard	Workings
Gross ROCE		99.7%	(14,730 – 8,388)/(600 + 5,760)
Pre-tax ROCE	13%	17.9%	1,140/(600 + 5,760)
Gross profit rate		43.1%	(14,730 – 8,388)/14,730
Pre-tax profit rate	5.1%	7.7%	1,140/14,730
Non-current assets turnover		2.75	14,740/5,364
Receivables days	78	22	(876/14,730) × 365
Payable days	34	64	(1,464/8,388) × 365
Inventory days		61	(1,392/8,388) × 365
Revenue per employee $	154,200	272,778	(14,730/54) × 1000
Pre-tax profit per employee $	7,864	21,111	(1,140/54) × 1000
Dividend cover		2.05	798/390
Current ratio		1.68	(1,392 + 876 + 192)/1,464
Quick ratio		0.73	(876 + 192)/1,464

Analysis

Pre-tax ROCE and pre-tax profit rate – These are 37% and 51% higher than industry average, which supports the view that Wizard is able to charge high prices. This would appear to be a result of the specialism of the services that Wizard provides. Additionally, there may be strict cost control within Wizard, further allowing it to generate higher margins. Should Wizard be acquired by Draco, then the products will be available at 'cost', thereby saving Draco money, while allowing it to potentially benefit from the premium prices it can charge to Wizard's other main customer.

Receivables days – At 22, these are exceptionally low compared to the industry average. This is probably due to the fact that Wizard only has two main customers, making it possible to form close working relationships. Given the specialism that Wizard provides, it is likely that its customers do not

want to sour this relationship by delaying payment. There is no reason to believe that this will change if Draco acquires the company.

Payable days – At 64, this is almost twice the industry average and reflects either a strict cash management policy within Wizard, or potentially a cash flow problem. Given the high profitability within Wizard, and its healthy balance sheet, it would appear that Wizard has squeezed its suppliers quite hard. Once acquired by Draco, this strategy may need to change to bring it in line with company policy.

Inventory days – At 61, this indicates the time that inventory is held by Wizard. This demonstrates that the production process within Wizard is about two months and may be a reflection of the complexity of the manufacturing process that it undertakes. It may be a result of the safety checks, which are a key feature of supply in the aerospace industry, and the time taken to do this may contribute to the 61-day figure.

Revenue and profit per employee – These are respectively, 76% and 168% higher than industry average, which is a further reflection of the profitability and revenue generation abilities of Wizard. This is further evidence of its ability to charge high prices and possibly control costs. Interestingly, we are told nothing about the salaries within Wizard and it may be that as a smaller firm, their salaries may be different to those within Draco. Should Wizard's salaries be higher than Draco's, this could lead to demands for higher wages among Draco's workforce. In terms of costs, it may well be that once Wizard is acquired, the greater purchasing power which a larger company would have may lead to further economies of scale and even cheaper supplies.

Dividend cover – As Wizard is not a listed company, its dividend ratio is not strictly comparable with Draco's. What is relevant is that it evidences Wizard's ability to pay dividends and hence generate cash. This is potentially good news for Draco as it has recently cut its own dividends, which will have disappointed shareholders.

Liquidity ratios – Without industry statistics, these are in themselves fairly meaningless. However, the current ratio is greater than one, indicating good liquidity, and the quick ratio is close to one. Allied with its low receivables and high payables days, this indicates that Wizard does not appear to have cash flow problems.

Overall – It would appear from the above analysis that Wizard is a profitable company that does not appear to have any liquidity or working capital concerns.

4.1 Users of financial analysis

Different stakeholders have different expectations of a company, and therefore will require different information about its performance:

(a) **Shareholders** – Shareholders will be interested in the quality of their investment and the returns they can expect through dividends and capital growth. Ratios which could be particularly important to them are: earnings per share, price/earnings (P/E) and dividend yield.

(b) **Bankers and debt holders** – Bankers and debt holders will be primarily interested in the risk attached to their investment in a company. Ratios which therefore could be important to them are: capital gearing, and interest cover.

(c) **Suppliers and employees** – Suppliers and employees both depend on the company continuing in business so that it continues to be a customer or an employer in the future. These stakeholders will be interested in a company's ability to meet its short-term liabilities. Ratios such as the current ratio and acid test ratio could be important in this respect.

(d) **Management** – They may need to consider all the ratios noted above, because they are important to (and are therefore likely to be monitored by) other stakeholders. Additionally, the company's management need to consider the company's performance in relation to profitability, cost control and working capital management. Ratios such as gross and net profit margins, inventory turnover, and receivable and payable days could therefore be important performance measures.

Managers may also want to measure the performance of different divisions within an organisation. ROCE and residual income (RI) are two methods of measuring divisional performance. However, there are potential problems with using ROCE and RI for evaluating and controlling business divisions:

(a) They are based on annual profit figures, and so disregard the future earnings of the division. Using BCG terminology from Strategic analysis, a cash cow might present a high ROCE; and a star, a low one, which would be a misleading guide to their true financial value, if assessed as the NPV of future earnings.

(b) To boost ROCE or RI, assets with low book values will be used in preference to new assets. This could lead to short-termism, with divisions preferring not to invest in new assets, even though such an investment would be better for their longer-term future performance.

However, it is important that managers in an organisation do not focus solely on financial performance measures. As we have noted in Strategic performance management, it is desirable to have performance metrics which look at key aspects of non-financial performance as well as financial performance. In the same way, it is advisable to use performance metrics which act as leading indicators, rather than focusing solely on lagging indicators.

4.2 Approach to analysing financial data

If you are given financial data for analysis, you should expect to carry out some numerical analysis. You will have to decide yourself how to do the analysis.

(a) If you are given data for more than one year, you should measure changes over time. If you are given financial data about a competitor, you should try to make a comparative analysis.

(b) There may be value in carrying out cost-volume-profit analysis (breakeven analysis) on data that you are given, but you will need to state your assumptions about fixed and variable costs.

(c) If you are given information about historical performance and targets, you should try to carry out numerical analysis of the extent to which the organisation is on track for meeting its targets.

Show all your numerical workings and state clearly the assumptions you have made.

Professional skills focus: Structuring problems and solutions

In order to draw conclusions about the position and performance of an organisation you will need to analyse financial and non-financial data presented in scenario exhibits. Ensure that you take care to present any calculations professionally, stating your assumptions and cross referencing your numerical analysis in the body of your discussion.

5 Operational data analysis

Section overview

Analysis of operational data is likely to use internally produced management reports, which are produced primarily for control purposes rather than planning purposes. Much operational data is non-financial rather than financial.

Although operational data may be financial, non-financial or a combination of both, much of it is likely to be non-financial.

Data about operations should normally come from internal sources within the organisation.

When analysing operational performance, it may be useful to have a checklist of areas of performance. Any problems or issues arising out of an operational report are likely to raise questions about one or more of the following areas.

5.1 Efficiency and effectiveness

Efficiency is concerned with getting the maximum output from a given quantity of resources or achieving a given quantity of output with the minimum of resources. Efficiency is also known as productivity, and typical productivity measures are:

- output per worker/hour
- output per machine per hour
- sales per square metre of floor space
- average time to produce a unit or complete a task
- average number of tasks completed per day
- quantity of materials per unit of output
- waste per unit of output
- production cycle time

Effectiveness is concerned with achieving objectives with the resources that are used. Measures of effectiveness depend on what the organisation is trying to achieve, and they compare planned targets with actual achievements. Important aspects of effectiveness may be:

- **Quality**: Product quality, including product design and performance reliability, may be a key factor in providing customer satisfaction.
- **Delivery**: Effectiveness in delivery of a product or service may relate to factors such as speed of delivery and reliability of delivery.

Resources may be used efficiently but ineffectively. Similarly, resources may be used effectively, but in an inefficient way.

5.2 Balanced scorecard

A balanced scorecard approach to operational performance analysis links performance targets and performance measures through all levels of an organisation, from operational level to strategic level. The four perspectives of performance in the balanced scorecard (as discussed in Strategic performance management) are:

- **Financial perspective** – achieving financial objectives in both the short and long term
- **Customer satisfaction perspective**, and aspects of performance that have the biggest effect on providing customer satisfaction
- **Internal business perspective**, and critical aspects of the internal operations of an organisation
- **Innovation and learning perspective** – issues such as product innovation and innovation in service delivery, and the acquisition of learning and knowledge by employees

Note, however, that none of the perspectives of Kaplan and Norton's balanced scorecard link directly to aspects of social responsibility or sustainability, which are becoming increasingly important elements of an organisation's overall performance. In this respect, in an article for ICAEW's Finance and Management Faculty ('The new thinking on key performance indicators', May 2006), David Parmenter suggested that in order to achieve a properly balanced view of performance, the number of perspectives of the balanced score card should be increased to six: financial; customer; internal process; **employee satisfaction**; learning and growth; and **environment and community**.

5.3 Cost

Cost is a financial aspect of performance. It is difficult to assess operational performance without also considering the cost incurred by a business.

Kaplan and Norton (who devised the balanced scorecard) recommend that activity-based costing should be used to produce cost measures for important internal business processes. These costs, in conjunction with measurements about speed/time and quality, should be monitored over time, and **benchmarked** with a view to continuous improvement or process re-engineering.

Benchmarking would allow managers to see not only how an organisation's costs vary over time (historical benchmarking), but also how costs vary in different parts of an organisation, or how an organisation's costs compare to competitors' costs. Monitoring costs and process efficiency against competitors could be particularly important for an organisation pursuing a low-cost (or cost leadership) strategy.

Information about costs could also play an important part in any decisions about whether to outsource certain functions or processes, or whether to retain them in-house.

Interactive question 2: The Eatwell Restaurant

The owners of The Eatwell Restaurant have diversified business interests and operate in a wide range of commercial areas. Since buying the restaurant in 20X0, they have carefully recorded the data below.

	20X1	20X2	20X3	20X4
Total meals served	3,750	5,100	6,200	6,700
Regular customers attending weekly	5	11	15	26
Number of items on offer per day	4	4	7	9

Reported cases of food poisoning	4	5	7	7
Special theme evenings introduced	0	3	9	13
Annual operating hours with no customers	380	307	187	126
Proposals submitted to cater for special events	10	17	29	38
Contracts won to cater for special events	2	5	15	25
Complimentary letters from satisfied customers	0	4	3	6
Average number of customers at peak times	18	23	37	39
Average service delay at peak times (mins)	32	47	15	35
Maximum seating capacity	25	25	40	40
Weekly opening hours	36	36	40	36
Written complaints received	8	12	14	14
Idle time	570	540	465	187
New meals introduced during the year **Financial data**	16	8	27	11
	£	£	£	£
Average customer spend on wine	3	4	4	7
Revenue from special events	2,000	13,000	25,000	55,000
Value of food wasted in preparation	1,700	1,900	3,600	1,450
Total revenue of all restaurants in locality	895,000	1,234,000	980,000	1,056,000

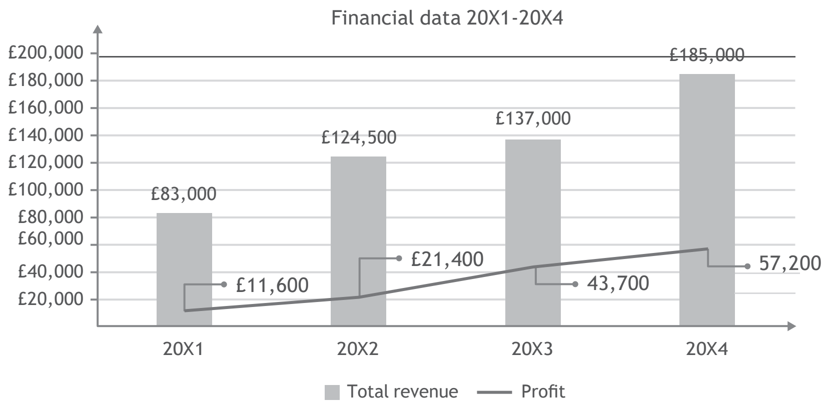
Requirements

2.1 Assess the overall performance of the business and submit your comments to the owners. They wish to compare the performance of the restaurant with their other business interests and require your comments to be grouped into the key areas of performance, such as: competitive performance, financial performance, quality of service, flexibility, and resource utilisation.

2.2 Identify any additional information that you would consider to be of assistance in assessing the performance of The Eatwell Restaurant in comparison with another restaurant. Give reasons for your selection and explain how they would relate to the key performance area categories used in (a).

Exhibit: Revenue and profit 20X1-20X4

See Answer at the end of this chapter.



See **Answer** at the end of this chapter.

6 Sustainability reports

Section overview

As sustainability reporting becomes more common, accountants may be asked to analyse them. Some additional challenges are presented, such as the fact that the reports may contain much qualitative information. This section discusses these issues and how to deal with them.

6.1 Approach to analysis

Alongside financial information, many organisations are now providing information about their wider impact on ESG matters. As discussed in Strategic performance management, there are now increasing mandatory disclosure requirements for organisations. There are also a number of voluntary reporting frameworks for reporting on sustainability, such as the GRI standards, referred to in Finance awareness.

Accountants will be expected to analyse the information provided in the same way as we analyse financial information. The approach suggested to analysing reports in section 2 applies equally to sustainability reports.

6.2 Users and their needs

The focus of analysis of sustainability reports will depend on who the analysis is for:

- Investors are interested in matters that may impact on the value of their investment over the short, medium and longer term. In particular, risks and opportunities related to climate change, the viability of the existing business model, and the reputation of the industry.
- Society as whole may be more interested in the organisation's impact on sustainability, and the extent to which it is making a positive or negative impact on society – for example, the contribution the business is making towards achieving the UN sustainable development goals (referred to in Strategic performance management).

When analysing sustainability reports, do take into account who the analysis is for.

6.3 Additional considerations

Professional scepticism should also be exercised when analysing sustainability reports. Some organisations may be providing sustainability reports purely as a marketing tool, hoping that simply producing a report will show that they are concerned about sustainability, even though their underlying activities may suggest otherwise. If the report adopts a more honest tone – recognising the challenges that the organisation faces, without giving the impression that management have all the answers – it will be more credible.

Sustainability reports may include forward-looking information, including targets that the organisation hopes to achieve (eg reductions in carbon emissions). These forward-looking targets are more credible if supported by historic data showing achievements already made (eg, how much have carbon emissions fallen in the recent past?).

As with financial information, information in sustainability reports is much more useful if it can be compared to other similar organisations or benchmarks. The use of accepted standards such as GRI standards can make information more comparable.

Is the information in the report consistent with the financial information? If the company mentions the importance of a particular activity in the sustainability report, which is not mentioned at all in the financial report, this can cast doubt on the claims in the sustainability report (eg the business claims that it expects to meet future clean-up costs, but there is no provision in the financial statements).

Interactive question 3: Better Pharmaceuticals Company (BPC)

You are reviewing the following sustainability report on behalf of an investor.

Better Pharmaceuticals Company (BPC) – Sustainability Report – 20X2

Society – we provide effective treatments for patients at reasonable prices. Our treatments are developed using our expert research and development team, supported by artificial intelligence to ensure we can find new treatments that will enable people to recover from, or live more comfortably with chronic ailments.

Environment – we are aiming to reduce the harmful impact that we have on the environment by 35% over the next ten years. We are also aiming to reduce our greenhouse gas emissions to zero within 40 years.

Economy – we aim to provide a good return to our shareholders, while providing long-term careers to the people who work for us and provide high-quality products to patients.

We have worked with our stakeholders to identify the topics that are most important to them and, based on these, we have we have identified 8 key areas of focus. We measure our performance based on these 8 key areas of focus. Our performance for the year ended 31 December 20X2 was as follows:

Society	
Area of focus	20X2 performance
Treating patients	1.2 million patients treated with BPC products
Developing new effective medicines	9 new products passed clinical trials and were launched commercially during the year
Diversity of board	33% of the board are female
Employee engagement	75/100 employee engagement score

CHAPTER 8

Environment	
Greenhouse gas emissions	15% decrease in greenhouse gas emis-sionssince 20W5
Renewable energy use	56% of our energy is from renewable resources

Economy	
Long-term investment	R&D spend accounts for 18% of sales
Shareholders return	Average total shareholder value added of 56%since 20W7

Requirement

(1) In so far as the information allows, evaluate the impact that BPC has had during the year ended 31 December 20X2

(2) State what other information would help you to make a better assessment of BPC's impact

(3) Critically evaluate the report and how useful it is for showing the impact of BPC

See **Answer** at the end of this chapter.

7 Big data and data analytics

Section overview

- The amount of data available to organisations is increasing ever more rapidly, and big data – with its characteristics of volume, velocity and variety – encapsulates both the opportunities and challenges which new sources of data present to organisations.
- The ability to analyse these large, and unstructured, data sets and to uncover previously hidden patterns of information could be an important element of an organisation's competitive advantage.

Whereas intuition historically played a large part in business decisions (in the absence of reliable and timely data) organisations now expect business decisions to be based on robust data analytics and data-driven insight, supported by intuition and experience.

One of the key challenges facing today's business managers is how they can use data and information about current performance to leverage additional value throughout an organisation's value chain (for example, through identifying greater operational efficiencies, or enhancing customer relationships) or to identify new sources of competitive advantage.

Context example: Efficiency

In an article for McKinsey, Mayhew *et al* (2016) discuss a consumer goods company that sought to increase margins on one of its well-known breakfast brands. The company deconstructed the entire manufacturing process into sequential elements, and then – using advanced analytics – scrutinised each element to see where it could unlock value. In this case, the solution was found in the oven: adjusting the baking temperature by a tiny fraction not only made the product taste better, but also reduced the cost of production.

Mayhew, H *et al* (2016) *Making data analytics work for you – instead of the other way around*http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/making-data- analytics-work-for-you-instead-of-the-other-way-around

7.1 Data analytics

Although much of the focus in this section of the chapter is on the increasing amounts of data available to organisations – so called 'big data'– it is important to stress that **data analytics does not relate only to 'big data'**.

Data analytics is the process of collecting and examining data in order to extract meaningful business insights, which can be used to inform decision-making and improve performance. As such, data analytics can be applied to internal data as well as external data. For example, data analytics techniques could be applied to sales or purchases data to discover patterns or trends in them.

However, sales or purchases data – as part of a company's traditional accounting records – could not really be described as 'big data'.

The words of Bernard Marr, one of the leading writers on big data, are instructive here:

"…[O]n one hand Big Data is changing the world because we now have so much more data and new data formats. But on the other nothing much has changed because we are still seeking to use data and information to inform corporate decision-making. The only real difference is that we now have new data formats that we can use and new technology to actually analyse that data and leverage it." (Bernard Marr (2015), Big Data: using smart big data, analytics and metrics to make better decisions and improve performance; Wiley; Chichester.)

As such, the process of analysing data, reporting results, and use those results to make decisions remains crucial for business managers, whether they are using internal data, or external, 'big data' data sets.

Having said that, the primary focus of section 6 of this chapter is on big data, and the potential benefits and insights it can provide to organisations.

7.2 The internet of things

Organisations today potentially have access to more data than ever before – about their customers and suppliers and about their operations. The growth of the internet, multimedia, wireless networks, smartphones, social media, sensors and other digital technology have all helped to fuel a data revolution – increasing the number of data sources available, their volume and their complexity. The rise of the 'Internet of things' – as discussed in Strategic analysis – has been particularly significant in this respect.

Definition

Internet of things: A situation in which everyday objects have network connectivity, allowing them to send and receive data over the internet.

In the 'Internet of things', sensors embedded in physical objects such as mobile phones, motor vehicles, smart energy meters, RFID tags, tracking devices and traffic flow monitors all create and communicate data which is shared across wired and wireless networks that function in a similar way to the internet. The timing and location of cash withdrawals from ATM machines could also be a potential source of data, as could footage from data from webcams or surveillance cameras.

Consumers using smartphones, laptops and tablets to browse the internet, to search for items, to make purchases and to share information with other users (for example through social media) all create trails of data. All of these are potentially sources of big data.

7.3 Big data and analytics

We have highlighted the key characteristics of 'big data' in Strategic choice earlier in this text (**volume, velocity, variety**, and **veracity**).

Crucially, however, the potential value of big data for organisations lies in its ability to help them make better decisions, and thereby improve performance.

In this respect, 'big data analytics' is likely to be crucial to making use of the potential value of big data.

Big data analytics refers to the process of collecting, organising and analysing large sets of data ('big data') to discover patterns and other useful information which an organisation can use in its future business decisions.

Big data analytics should help an organisation to reveal insights in data which had previously been too difficult or costly to analyse – due to the volume and variability of the data involved. These insights can be historical, real-time or predictive.

Being able to extract insights from the data available is crucial for organisations to benefit from the availability of big data – for example, to help them understand the complexity of the environment in which they are operating, and to respond swiftly to the opportunities and threats presented by it; or to develop new insights and understanding into what customers need or want.

7.4 Making use of big data

Historically, only the largest corporations have had sufficient resources to be able to process big data. Now, however, it is becoming possible for all organisations to access and process the volumes of big data potentially available to them, due to cost-effective approaches such as cloud-based architectures and open source software.

McKinsey's report *Big Data: the next frontier for innovation, competition and productivity* suggests that "Big Data has now reached every sector in the global economy. Like other essential factors of production such as [physical] assets and human capital, much of modern economic activity simply couldn't take place without it".

This suggests that the ability to capture and analyse big data, and the information gained by doing so, have become important strategic resources for organisations. Making effective use of big data could confer competitive advantage for an organisation. Alternatively, in time, competitors who fail to develop their capabilities to use big data and information as strategic resources could be left behind by those who do.

While these might initially seem to be quite bold claims, big data can certainly create value for organisations through its ability to drive innovation and by helping organisations gain greater and faster insights into their customers.

Similarly, analysing data from as many sources as possible when making decisions can also increase the amount of useful information available to managers when they are making those decisions.

However, the distinction between simply having 'data' and having 'useful information' is important here. Simply having more data available to them does not, in itself, benefit organisations or provide them with any competitive advantage. Instead, organisations only benefit if that data is converted into valuable information and managers then use that information to make effective decisions – which, for example, improve operational efficiency and customer experience, or which enable new business models to be created.

Context example: Big data and the logistics industry

Logistics providers, such as DHL, manage a massive flow of goods around the globe, and at the same time create vast data sets; for example, from recording the origin and destination, size and weight of millions of shipments every day, and then from tracking their location across global delivery networks.

Big data can provide a number of potential benefits to logistics providers, and this case example highlights three of these.

Last-mile optimisation

A major constraint on the levels of operational efficiency in a distribution network is the so-called 'last mile' – the final stage of a supply chain in which goods are handed over to the recipient. This final stage can often be one of the most expensive in the supply chain (for example, if a delivery driver becomes stuck in a traffic jam, or if a recipient is not present when a courier attempts to deliver their package, and so the delivery has to be rearranged).

However, big data analysis can help to increase last-mile efficiency, through route optimisation aimed at saving time in the delivery process. Rapid processing of real-time information assists route optimisation in a number of ways.

When the delivery vehicle is loaded and unloaded, sensors detect the destinations of the packages and the optimal delivery sequence is then calculated for the driver.

Once the delivery vehicle has begun its journey, telematics databases are used to automatically change delivery routes according to current traffic conditions. For example, if heavy traffic is causing

delays on the route originally scheduled, a revised route is generated for the driver to avoid those delays.

In addition, routing intelligence makes use of availability and location information posted by recipients in order to avoid unsuccessful delivery attempts.

The 'big data' aspects of this scenario are that the driver's control systems make use of a number of different optimisation procedures, fed by correlated streams of real-time events, to dynamically re- route vehicles while they are on the road. As a result, each driver receives instant driving direction updates from their onboard navigation system, guiding them to the next best point of delivery.

Capacity planning

Effective capacity planning can be an important competitive advantage for logistics providers. Excess capacities reduce profitability, while capacity shortages affect service quality and potentially jeopardise customer satisfaction (eg, by increasing delivery times).

Resource planning is therefore an important consideration for logistics planners at both strategic and operational levels. At a strategic level, the topology (links, nodes etc) and the capacity of the distribution network need to be adapted according to anticipated future demand. The results from capacity planning often lead to capital expenditure, such as investments in warehouses, distribution centres and vehicles. Therefore, more precise capacity demand forecasting can increase efficiency and lower the risks attached to investing in storage and fleet capacity (either by overinvesting or underinvesting).

Big data can support such capacity planning by analysing data about the historical capacity and utilisation rates of transit points and transportation routes. In addition, it can take account of seasonal factors and emerging freight flow trends (which are affected by external economic information, such as industry or regional growth forecasts).

As well as identifying potential under capacity planners can expose any potential overcapacity, and identifying this should provide a trigger to try to increase sales volumes – for example, by using dynamic pricing mechanisms.

Risk evaluation and resilience planning

Business to business logistics providers know their customers' supply chains in great detail, and customers rely on the providers' predictive risk assessment.

In order to be able to identify potential threats to the supply chain, logistics providers need to maintain a model which not only describes all the elements of the supply chain topology but also monitors the forces which could affect the performance of that supply chain – for example, local developments in politics, economy, or events in the natural environment.

Data on these environmental factors can come from a number of sources (eg, weather forecasts, new sites, social media and blogs) but must then be aggregated and analysed. Much of this data stream is unstructured and continuously updating, so the power of big data analytics in dealing with velocity and variability could be invaluable in detecting supply chain risks. For example, if there is a tornado warning in the region where a transhipment point is located, the logistics company will need to alert its customer to this risk, as well as suggesting suitable counter-measures to mitigate against potential disruption (for example, either replanning the transport route, or else increasing substitute supplies from another area).

Based on a research paper produced by DHL: *Big Data in Logistics*, www.dhl.com

As well as the specific example of risk management highlighted in the DHL case study, better quality data should also improve managers' ability to monitor and control business activities in an entity more generally. For example, it should lead to more accurate reporting, particularly when supported by dashboards that enable continuous monitoring and real-time insight into operations.

7.5 The value of big data

The case study above (about big data in the logistics industry) has illustrated some of the ways big data can help an organisation, but more generally, DHL's report *Big Data* *in Logistics* suggested that one of the main ways in which big data can create value for organisations is through improving operational efficiency. Data can be used to make better decisions, to optimise resource consumption and to improve process quality and performance. In this respect, big data provides similar benefits to automated data processing, although big data can increase the level of transparency in the data.

McKinsey's *Big Data* report also highlights its ability to create transparency as one of five broad ways in which big data can create value for organisations:

Creating transparency – Making data more easily accessible to relevant stakeholders, in a timely manner, can create value in its own right – for example, by revealing insights from data which had previously been too costly or complex to process. This transparency could relate to data within an organisation as well as external data – through better integration and analysis of data produced by different parts of an organisation. For example, within a manufacturing company, integrating data from research and development, engineering and manufacturing units to enable concurrent engineering could significantly reduce time to market as well as improving quality.

However, in many cases the increased transparency resulting from big data is likely to relate to external data. For example, analysing shoppers' transactions, alongside social and geographical data, can reveal peer influence among customers – ie, the extent to which shoppers' choices are shaped by their friends and neighbours as well as by the marketing efforts of the company itself.

Context example: T-Mobile and customer retention

Customer churn (the loss of customers over a period of time) is a problem for all telecommunications providers. To try to reduce churn, providers typically analyse the usage patterns of individual subscribers and their own service quality. Providers also offer specific rewards to try to ensure the loyalty of some customers – based on parameters such as customer spending, usage and length of subscription.

Traditionally, the focus of these retention efforts has been based on the value of individual customers to the provider. While they have yielded some increases in customer loyalty, customer churn remains a major concern to the providers.

In order to predict customer behaviour more effectively, T-Mobile US has started including the social relationship **between** subscribers in its churn management model. In particular, the company has tried to identify so-called 'tribe leaders' – people who have a strong influence within larger, connected groups. T-Mobile's analysis has identified that if a 'tribe leader' switches to a competitor's service, it is likely that a number of their friends and family members will also switch.

This insight has prompted T-Mobile to change the way it calculates customer value. Customer value now reflects not only a customer's lifetime subscription spending on their mobile phone services but also the size of their social network or 'tribe'. Moreover, this means that T-Mobile can focus its retention activities on retaining the 'tribe leaders' rather than on trying to retain individual subscribers.

Historically, the data analysis T-Mobile used for its customer retention activities came primarily from its own billing systems. Creating this new perspective on its customers has required the company to ingest approximately one petabyte of raw data – including information from web clickstreams and social networks – into the information systems it uses to monitor customer churn. However, in the first quarter in which T-Mobile used its new churn management model, churn rates were reduced by 50% compared to the equivalent quarter the previous year.

Based on a case study included in DHL's research paper: *Big Data in Logistics*, www.dhl.com

Another important context in which transparency can be valuable for an organisation is in relation to **fraud**. For example, having real-time information available from a variety of sources could help an organisation expose fraud and irregular business practices among customers, employees, suppliers or other partners more quickly than it would otherwise have been able to do.

(We noted in Strategic choice that fraud detection is one of the potential applications of machine learning in financial services. More generally, AI and machine learning can help organisations analyse and use data more efficiently than ever before –as we will discuss later in this chapter.)

Performance improvement – The increasing amount of transactional data they store in digital form provides organisations with an increasing amount of accurate and detailed performance data – in real or almost real time. By analysing variability in performance – and the causes of that variability – organisations then manage performance to higher levels. For example, identifying what customers are saying in social media about an organisation's products or its customer service could help the organisation identify how well it is meeting customers' needs. Customers' conversations could help the organisation identify potential changes which are needed to its products, or the way they are delivered, in order to meet customers' needs more effectively – and thereby to increase sales.

In addition to increasing revenues, cutting costs is also likely to be a key component of increasing profits. Having a complete picture of operational activities – and a detailed picture of costs – can help an organisation identify patterns that indicate wasteful or inefficient processes. Similarly, understanding the dynamics of the supply chain in more detail could help an organisation optimise its costs, capacity and inventory levels, as well as the service it provides customers (for example, through improved product availability).

Market segmentation and customisation – The volume and variety within big data enables organisations to create highly specific segments within its markets and to tailor its products and services precisely to meet those needs.

The idea of market segmentation (which we discussed in Strategic marketing and brand management) is already a key concept within strategic marketing. However, big data could facilitate the real-time micro-segmentation of customers for targeted promotions and advertising – for example, by sending tailored (and possibly even personalised) recommendations to customers' mobile devices while they are in the right area to take advantage of the offers.

The ability to perform precise customer segmentation and targeting could be used to help organisations improve customer loyalty and retention, as well as in attracting new customers.

UK supermarkets were at the forefront of the big data revolution, and their store card databases have provided them with data which they can mine to gain insight into customers and their purchases.

McKinsey's report highlights that big data could also be valuable in segmenting public sector markets. Traditionally, public sector markets have not segmented citizens (service users) in the same way that private sector companies have segmented customers and potential customers. However, big data could enable public sector organisations also to tailor products and services more effectively.

Decision making – The sophisticated analytics tools which are used to uncover previously hidden patterns and trends in data could also be used to improve decision-making. For example, trends identified by a retailer in in-store and online sales – in real time – could be used to manage inventories and pricing. In some cases, decisions will be made by managers in store (based on analytics from the data sets) but in other cases the decisions themselves could even become automated. So for example, a retailer could use algorithms to optimise decisions about inventory levels and pricing in response to current and predicted sales data (ie, 'dynamicie,'dynamic pricing,' which we mentioned in Strategic marketing and brand management). (This again links in to the ideas of predictive analytics, and machine learning.)

Having a more detailed understanding of customer behaviour can also be useful in relation to strategic decisions. For example, understanding the customer base of a target business could be an important element in an investment decision: customer loyalty rates could give a valuable insight into the value a business can generate from its customers (and therefore how much a potential acquirer should be prepared to pay for it).

New products and services – Entities can use data about social trends and consumer behaviours to create new products and services to meet customers' needs, or to enhance existing products and services so that they meet customers' needs more exactly. For example, the emergence of real-time location data, from traffic light sensors and satellite navigation systems, could enable insurance companies to refine the pricing of their insurance policies according to where, and how, people drive their cars.

More generally, big data could also provide new business opportunities in their own right. For example, Facebook's advertising business incorporates analysis of a user's actions as well as their friends' actions. Equally, Amazon could be seen as an example of a company which has built its business – and serves its customers – using data and analytics; for example, through the way it makes recommendations for customers linked to the purchases made by other customers with similar interests.

7.6 Data and customers

So far in this section we have looked at the way organisations can use big data to improve their understanding of what their customers want. However, Web 2.0 technologies (which we discussed in Strategic marketing and brand management) mean that data is increasingly available to customers as well as organisations.

For example, online customer reviews are now commonplace, and smartphone applications ('apps') now enable customers to evaluate and compare product prices in real time. This increased

availability of data creates a new market transparency which can give customers a greater insight into what they are buying, and who they are buying from.

In this respect, the data helps customers to base purchasing decisions not only on price, but also on a company's social reputation – for example, in terms of customers' feedback in relation to the quality of service they have received.

7.7 Data and insight

As the fourth 'V' characteristic of big data – veracity – highlights, being able to trust data is crucial in order for that data to be valuable for an organisation.

Similarly, in order to benefit from data, businesses need to move from simply 'having it' to getting insight from it, and doing something differently as a result.

The 'Data analytics' section on PwC's website suggests seven key questions which an organisation should be asking of its data, in order to help the organisation and release insight from its data.

Question	Comments
What value exists in your data?	Management need to consider what data is currently available, how good the quality of that data is, and what they can (or can't) do with it.
Can you trust your data?	It is essential to be able to trust the data, and the systems that collect and hold it. Accountants can play an important role in providing assurance in this area: • reviewing data sources and data management practices to give management confidence in the data • reviewing business systems to ensure the right controls and monitoring practice are in place • re-performing business processes to check the accuracy of the information being reported
What happened and why?	Business information needs to be presented through user-friendly interfaces (eg, dashboards) to show management what is happening in their business. Using analytics, data sets can be combined to reveal trends, patterns, triggers and causal relationships to help management understand 'why' the organisation is performing as it is.
What might happen next?	Using data patterns from the past, combined with industry and entity knowledge, can help management accurately anticipate the future (and plan more effectively as a result). Organisations can also use real-time (or close to real-time) predictive analytics solutions, which can be automated and embedded into business processes (for example, making additional product recommendations for a customer based on current purchases). Analytics could also be very useful for identifying and predicting specific hidden activities, such as fraud or market manipulation.
What is the right action for your business?	Management can use descriptive and predictive insights available to help them identify the appropriate courses of action, subject to their resource constraints and business priorities.
Is insight being delivered to the right people at the right time?	In order for an organisation to maximise the value it obtains from its data, it needs to ensure the right data and insights are being delivered to the right people at the right time. An important consideration here will be tailoring output to meet the different needs of different audiences – for example, summary dashboards for senior management, drill-down solutions for operational managers, or key customer insights delivered to the screens of call centre staff.
How do you embed data analytics into your organisation?	There are a number of factors which could affect an organisation's ability to use data analytics effectively; including: Culture – the organisation will need to embrace fact-based decision making (rather than decisions based on intuition); based on data which provides insight into what, why and what next. People and skills – will the organisation need to recruit new staff; what training will existing staff need (either to analyse data or to interpret the results of data analytics)? Technology strategy – can the organisation's information systems analyse the data effectively? Where is the organisation storing its data – in house, or via a third-party data hosting service (eg, cloud storage)?

https://www.pwc.co.uk/data-analytics/data-building-blocks.html" https://www.pwc.co.uk/

data- analytics/data-building-blocks.html [Accessed: 10 August 2016]However, when thinking about the ways they can use data and analytics, it is also important for organisations to consider whether they have sufficient, appropriately skilled staff to perform analytics.

7.8 Big data and automation

In its publication *Big data and analytics – what's new?*, the ICAEW Information Technology Faculty highlights another way in which big data can be used in organisations: to automate non-routine decision-making.

Driverless cars illustrate the way data from a wide variety of sensors, mapping applications and satellites can be used to enable technology to make decisions (and thereby to navigate a car). Very few accidents have so far been reported, suggesting that the technology is very accurate in its decision-making, and not prone to fatigue or carelessness (as 'human' drivers might be).

The potential implications of this in an organisational context are that computers will be able to take on more tasks which had previously been difficult to automate. For example, healthcare companies are beginning to exploit machine learning techniques to automate medical diagnosis. Computers can hold far more information than humans, and can quickly and accurately work through the possible scenarios based on the symptoms present to identify the most likely causes for them.

However, as ICAEW's publication identifies, there are still clear risks relating to the use of automation. If something goes wrong, how will a business know? How will it correct potential errors? And, perhaps more fundamentally, there still remains questions around the extent to which computers are better decision-makers than humans, compared to scenarios when human knowledge remains vital.

7.9 Artificial intelligence (AI) and machine learning

One of the recurring themes in any discussion about data, is that the volume of data potentially available to businesses is greater than ever before, and is continuing to increase. However, this data only really becomes valuable to businesses through the insights it can give them. Although the volume of data may be increasing, the volume of insights a business can extract from it will be limited, if a business only has its existing staff available to analyse the data.

In this context, AI and machine learning (which we discussed in Strategic choice) are increasingly mentioned alongside big data, as ways in which technology can help organisations gain insight from data.

AI is a broad concept where machines behave and think more like humans. Machine learning is an application of AI that uses statistics and historical data to identify patterns and automatically improve the efficiency of performing a given set of tasks over time.

A machine's ability to identify patterns in data, and to generate models and recommendations based on them means that machine learning can be used to help make predictions and prescriptions. (Predictive analytics anticipates what will happen; prescriptive analytics provides recommendations, for example, in the way internet retailers recommend future purchases for customers based on their past purchases.) The following examples illustrate some of the ways AI and machine learning could help improve an organisation's performance:

Predictive maintenance – machine learning can use data from sensors throughout an operating system to identify performance issues in the system. Having identified any potential problems, management can take action to reduce downtime and operating costs while improving yield. For example, monitoring engine vibration and 'internet of things' sensor data alongside maintenance history machine learning can identify anomalies in the performance of an engine, and – in turn – can identify if any maintenance may be required. Predictive maintenance like this can help to improve performance and extend the life of assets.

Real-time forecasts – One commonly used application of machine learning is in the real-time optimisation of delivery routes for logistics companies (as mentioned in the DHL case example earlier in this section). This can help not only to reduce delivery times, but also improve fuel **efficiency**.

Product recommendations – Combining customer demographic and past transaction data with social media monitoring can help generate individualised product recommendations (as used by Amazon and Netflix) which help to increase the conversion rate between the number of 'hits' on a website and the number of sales generated.

Personalised marketing – For example, data about individual drivers' driving patterns and distances driven can be used by insurance companies to customise premiums. (More generally, across the retail sector, using customer data to personalise promotions can help retailers increase sales.)

Supply chain – Forecasting inventory requirements based on causal drivers of demand, rather than relying on prior outcomes or historic trends, can improve forecasting accuracy. This could help companies reduce their inventory costs, by matching inventory to product demand more accurately. If all the parties in a supply chain hold the optimum level of inventory, this should lead to a reduction in 'out of stock' or 'over-stocked' situations.

Anomaly detection – As well as contributing to predictive and prescriptive analytics, machine learning can also be valuable in analysing current (real time) data sets to highlight unexpected patterns and outliers (anomalies) in them. The earlier example about predictive maintenance is, in effect, an application of this – because the performance of units in need of repair and maintenance will be anomalous to the expected performance. However, identifying anomalies in data sets could also be particularly useful in helping organisations to identify fraudulent transactions (which do not fit with the regular pattern of transactions) or to identify potential malicious attacks on a website (evidenced by a sudden and unexpected increase in traffic on the website).

7.10 Potential limitations of big data

Some critics have argued that big data is simply a buzzword, a vague term which has turned into an obsession in large organisations and the media. These critics argue that very few instances exist where analysing vast amounts of data has resulted in significant new discoveries or performance improvements for an organisation.

Correlation not causation – The primary focus within big data is on finding correlations between data sets, rather than focusing on the cause of any trends and patterns. It can often be easier to identify correlations between different variables than to determine what – if anything – is causing that correlation. Correlation does not necessarily imply causality.

Similarly, if an organisation does not understand the factors which give rise to a correlation, it will equally not know what factors may cause the correlation to break down.

Context example: Google Flu Trends

Google Flu Trends was presented as a means of tracking and predicting the spread of influenza across the US.

The program used algorithms which identified correlations between the symptoms people searched for online and flu symptoms.

However, after providing a swift and accurate account of flu outbreaks for several winters, in the 2012–13 season Flu Trends overstated the spread of flu-like illnesses across the US by almost a factor of two.

The cause of this problem was that ultimately Google did not know what linked the search terms with the spread of flu, and Google's algorithms weren't designed to identify what caused what. They were simply finding statistical patterns in the data; and as such they focused on correlation rather than causation.

One explanation of the Flu Trends failure in 2012–13 is that there were a number of news stories in December about the dangers of flu, and these provoked internet searches by people who were healthy.

Sample population – While the data sets available through big data are often very large, they are still not necessarily representative of the entire data population as a whole. For example, if an organisation uses 'tweets' from the social networking site Twitter to provide insight into public opinion on a certain issue, there is no guarantee the 'tweets' will accurately represent the view of society as a whole. (For example, according to the Pew Research Internet Project, in 2013, US-based Twitter users were disproportionately young, urban or suburban, and black.)

Data vs relevant information – More generally, in their review article *Two dogmas of Big Data*, Deloitte note that there is a misconception that "more bytes yields more benefits". In other words, management decisions should be based on relevant information, not raw data. Therefore, by itself, increasing the volume of data available to an organisation does not necessarily provide managers with better information for decision making.

Deloitte's article also suggests that, given the time and expense involved in gathering and using big data, entities need to consider whether "big data yields commensurately big value". As the article points out, the paramount issue when gathering data is not volume, variety or velocity per se, but "gathering the right data that carries the most useful information for the problem at hand".

Data silos – Furthermore, an organisation's ability to maximise the value it obtains from big data could be restricted by 'data silos' within the organisation (although this issue represents a problem with the ways organisations share data and information between departments rather than a specific limitation of the value of big data). For example, insurance companies are aware that big data could have a significant effect on their industry – through helping to combat fraud or through enabling them to understand customers better and to price premiums more accurately. Equally, however, insurers are aware that data silos persist within their organisations which reduce the value they can extract from the data, with communication channels between the risk department and the sales and marketing departments, in particular, often being inadequate.

Data cleansing – The ICAEW Information Technology Faculty report *Big data and analytics – what's new?* identifies that when analysing any data there is a risk that the data may be inaccurate, inconsistent, or out of date. However, these problems could be magnified in relation to big data as the 'new' sources of data (such as social media) could be unreliable or become outdated very quickly.

David Hand, quoted in the February 2016 edition of *economia* cautions that: "Blind analysis of large data sets is likely to lead to… some gross mistakes. Awareness of the issues of data quality is becoming critically important in the big data world… Accountants have tools for exploring and checking data quality and these will be particularly important."

Where data is being relied upon to make important decisions about specific individuals (eg, customers) or organisational resources, it remains very important to ensure that the quality of the underlying data is fit for purpose. High quality data is achieved by removing inaccurate records before analysis is carried out, a process called **data cleansing**.

On the other hand, in situations where data is being used to identify more general trends, the sheer volume of data means that the granular quality of individual pieces of data is less important. Analysis of the data will still correctly identify general trends, even if some of the individual data items are unreliable.

7.11 Ethics and governance

7.11.1 Potential ethical issues

Although big data can help entities gather more information about their customers and understand customer behaviour more precisely, gathering this data could also raise significant ethical and privacy issues. In particular, to what extent should information about individuals remain private (or confidential) rather than being shared across analytical systems?

Organisations' demand for big data has led to data itself becoming a business – with entities such as data brokers collecting massive amounts of data about individuals, often without their knowledge or consent, and being shared in ways they don't want or expect. Critics argue that in order for big data

to work in ethical terms, the individuals whose data is being collected need to have a transparent view of how their data is being used or sold.

On the one hand, if organisations have access to personal data – such as health records and financial records – this could help them to pinpoint the best medical treatment for a patient or the most appropriate financial products for a customer. On the other hand, however, these categories of personal data are those which consumers regard as being the most sensitive. In this respect, big data raises questions around how organisations and individuals will manage the trade-offs between privacy and utility of data.

If companies are using big data properly, it will be vital for them to consider data protection and privacy issues. On the one hand, they must ensure they comply with any legislation about these areas (for example, in relation to the EU's General Data Protection Regulation (GDPR). But even if they comply with prevailing laws, the large-scale collection and exploitation of data could still arouse public debate, which could subsequently damage corporate reputation and brand value.

The issue of **data security** is also closely linked to issues of privacy. What steps – and technologies – are organisations taking to prevent breaches of data security which could expose either personal consumer information or confidential corporate information? (The example of Facebook and Cambridge Analytica which we mentioned in Business risk management highlights the implications of some of these issues.)

The significance of data security as a potential issue could also be increased if organisations want to use third-party cloud service providers to store their data. Although using an external service provider could be an effective way of increasing the volume of data an organisation can store, the organisation needs to be sure that the provider can protect their data. (We will look at this issue of cloud computing and data security in more detail in the next chapter.)

7.11.2 Potential governance issues

The use of big data also requires organisations to maintain strong governance on data quality. For example, the validity of any analysis using the data is likely to be compromised unless there are effective cleansing procedures to remove incomplete, obsolete or duplicated data records.

Similarly, it is very important for organisations to ensure that the overall data quality from different data sources is high because the volume, variety and velocity characteristics of big data all combine to make it difficult to implement efficient procedures for validating data or adjusting data errors.

7.12 Reliability of data analysis

It is clear that there is increasing use of data analytics to inform business decisions. Users of the information produced by data analytics should take steps to ensure the analysis is reliable, and apply some professional scepticism. Scepticism does not mean that the users assume that the data or its conclusions must be wrong; rather it means being aware that data analysis is not always accurate for several reasons:

- There may be bias inherent in the data that is analysed. This may be intentional or unintentional.
- The data may have been intentionally manipulated during the analysis process.
- The data may have been analysed accurately, but the presentation of the data, or the conclusions drawn from it may have been designed to mislead the users.

7.12.1 Unrepresentative samples

Data analysis often involves sampling. This involves taking a sample of data and based on analysis of the sample, making inferences about the population. This includes hypothesis testing, whereby a hypothesis (eg 95% of our customers are happy) is tested by taking a sample. If the results of the sample are not significantly different from the hypothesis, then the hypothesis is accepted.

If sample data is used to make inferences about the population then it is important that the sample is representative of the population, and free from bias. If not, wrong conclusions may be reached.

The first problem may be that the sample used is too small. The larger the sample is, the more likely it is to be representative of the population. However, increasing sample sizes can increase the costs of collecting data significantly, so a balance needs to be struck between the size of the sample and the costs of data collection. Users of data should question the size of the samples used.

Another issue relating to samples is bias. This is where certain classes of data in the population are less likely to occur in the sample than expected.

7.12.2 Data bias

When analysing data for decision making it is important to be aware of data bias.

Definition

Data bias: Data is biased when it is not representative of the population that is being analysed. Bias can be inherent in the data collected or introduced by those analysing the data.

With the proliferation of data available, managers are becoming increasingly reliant on data to support strategic decisions. However, such decisions are not guaranteed to be accurate simply because they are based on data. Depending on how the data is collected, who collects the data and what data is available for collection certain parameters may be over or underestimated, resulting in misinterpretation and erroneous decisions.

When assessing and interpreting data is it is important to be aware of the main types of bias that could impact the final decision taken.

7.12.3

Definition

Selection bias: Selection bias refers to situations where the method used to select a sample results in data with certain characteristics being less likely, or having no chance of being selected. As a result, the sample would not be representative of the population.

Selection bias often occurs during election campaigns, when pollsters ask a sample of voters about their voting intentions. Some voters prefer not to disclose their voting intentions, or cannot be selected because they do not have internet access (if the poll is being conducted online). This means that such voters are not included in the samples, and wrong conclusions are reached about how people will vote.

Self-selection bias occurs when individuals select themselves. For example, a customer satisfaction survey is most likely to be answered by individuals who are either extremely happy or extremely unhappy with the service received. The majority of customers will not reply so the results are incomplete.

Survivorship bias is a type of selection bias, whereby only items that survived some previous event are included in the sample. An accounting firm might decide to do a survey to find out how good its programme for trainee accountants is, by surveying a sample of trainees who have worked for the firm for one year. Such a survey would exclude trainees who left the firm before the end of the first year who were presumably not very happy with the programme.

Observer bias relates to interpretation and occurs when observing and recording results. The researcher allows their assumptions (which may be unconscious) to influence their observations.

Omitted variable bias occurs when a variable is excluded from the data model and therefore the cause of a change in one variable is incorrectly attributed to another variable in the model. For example, analysis of sales volumes incorrectly attributes a sudden increase to a new advertising campaign when it is in fact caused by an increase in the price of a competitor product.

Cognitive bias relates to human perception and describes the way individuals interpret and understand information differently based on their own background, experiences and beliefs.

Definition

Confirmation bias: A type of cognitive bias that occurs when the person performing the analysis has already reached their conclusion, and is using data to support that conclusion. They may intentionally ignore data that they know will not support their conclusion.

If market research is being performed to assess the popularity of a new product, that the company has spent a lot of time and money developing, there may be pressure on the market research department to conclude that the product is *not* likely to fail. This is likely to lead the marketing team to ignore any data suggesting that the product is not popular.

Context example: Confirmation bias and Brexit

According to The British Psychological Society 'Confirmation bias may explain why the Brexit result was such a shock to many'. All interested parties on both sides of the political debate, from politicians, to campaign leaders and voters 'would have been prone to the human tendency to seek out information - from newspapers and TV analysis, but also friends, colleagues and social media, that agreed with their pre-existing beliefs and reject information that didn't. Whether a 'Leaver' or a 'Remainer', individuals on either side of the debate could find a plethora of strong arguments to confirm their own beliefs and perceptions. The example demonstrates that the existence of confirmation bias can make it difficult to see alternative points of view, affecting the quality and objectivity of any decisions taken.

Source:

The British Psychological Society. (n.d) Making better decisions: How understanding our psychology can stop us falling into the bias trap. [Online] Available from: https://www.bps.org.uk/sites/bps.org.uk/files/Policy/Policy%20-

%20Files/Changing%20Behaviour%20-%20Making%20Better%20Decisions.pdf [Accessed 8 June 2021]

Professional skills focus: Applying judgement

Before drawing conclusions from any information, ensure that you have considered possible bias within the data. In particular, take into account the source of the data and whether it is complete and relevant to the decision being made. Consider whether further information is needed before a sound conclusion can be drawn.

7.13 Reaching the wrong conclusions

7.13.1 Spurious correlation

Even if the underlying data is sound, analysis may still lead to questionable conclusions. This can occur intentionally or unintentionally. One common problem is spurious correlation, where two variables show strong correlation, but this does not mean that one causes the other. An example of this is the increase in the number of cases of diabetes and the increase in sales of smartphones over the last twenty years. These two show a strong correlation, but this does not prove that smart phones cause diabetes.

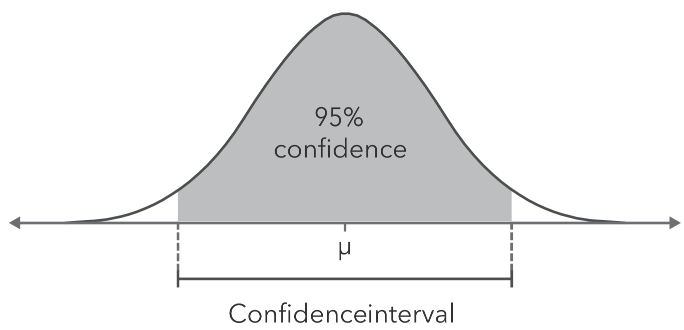
7.13.2 Type I and Type II errors

Hypothesis testing is based on formulating a hypothesis, and then taking a sample of data to find out if that hypothesis is correct. The hypothesis typically relates to the mean of a population,

To test the hypothesis, a sample is taken and the sample mean is calculated. Hypothesis testing recognises that even if the hypothesis is true, not every sample mean will be equal to the mean of the population. In fact, if we were to take every sample of a given size from the population, and note down the sample means, then sample means would have their own distribution. It is often assumed that the sample means themselves are normally distributed with a mean that is equal to the mean of the population, and a standard deviation (or standard error) that depends on the standard deviation of the population and the sample size.

The hypothesis would only be rejected if the sample shows a result that is statistically significantly different from that expected by the hypothesis Statistical significance uses confidence intervals. You would not need to calculate confidence intervals, but it is useful to have an awareness of them. We may set a confidence interval of 95%. This means that we identify the upper and lower limits within which 95% of samples means would lie. If our sample mean lies outside this range, we reject the hypothesis. If it lies within the range, we accept it.

Distribution of sample means (x) around population means (μ)



Confidence interval

Hypothesis testing can reach the wrong conclusions. A type I error occurs where the hypothesis is correct, but because the sample mean is outside of the confidence interval, the hypothesis is rejected. A type II error occurs when the hypothesis is incorrect, but the hypothesis is accepted because the sample mean lies within the 95% confidence interval.

In medical testing, the terms "false positive" and "false negative" are often used:

- A false positive is where a test incorrectly indicates the presence of a disease or illness when the illness is not present. This is a type I error.
- A false negative is where a test incorrectly fails to indicate the presence of a disease of illness when it actually does exist. This is a type II error.

7.14 Trend analysis

Trend analysis aims to uncover patterns in a company's data in order to predict future trends and support strategic decision making. Trend analysis involves collecting information from multiple time periods and plotting the information on a graph to assess whether the data points to an upward or downward trend. Examples of trend analysis include:

- Reviewing monthly revenue and cost information from the income statement to identify inconsistencies or fraud, eg a spike in revenue in one period should be investigated to understand the cause.
- Forecasting future revenues and costs, by extrapolating the trend line, for the purpose of budgeting.
- Analysing and extrapolating historical data to support future strategic decisions such as investment in a new product or expansion into a new market.

Trend analysis and prediction of future trend data can be performed using spreadsheet functionality. Note that TREND functionality only looks for linear relationships in data.

Worked example: Trend analysis

As part of the monthly re-forecasting process, you have been asked to forecast the next 5 months of revenue for a flooring range sold by carpet and flooring retailer Home Comfort. You have been given the data below, relating to actual sales of Zermatt, a laminate flooring product available in a variety of colours, for Months 1–9.

	A	B
1	Month	Zermatt revenue (£'000)
2	1	20
3	2	32
4	3	45
5	4	46
6	5	51
7	6	53
8	7	65
9	8	85
10	9	75

Requirement

Using spreadsheet functionality, calculate forecast sales for Months 10–15.

Solution

To calculate forecast sales, you can use the spreadsheet function TREND. The formula used in cell E2 is =TREND(B2:B10, A2:A10, D2:D7)

	A	B	C	D	E
1	Month	Product Arev-enue (£'000)		Month	Zermattreve-nue(£'000)
2	1	20		10	88 [1]
3	2	32		11	95
4	3	45		12	102
5	4	46		13	109
6	5	51		14	116
7	6	53		15	123
8	7	65			
9	8	85			
10	9	75			

1 TREND FUNCTION is used to calculate Months 10-15

Tutorial Note

In the Trend Analysis example above, the data shows a time series trend, with one variable being months. The spreadsheet function TREND can examine the relationship between any two variables where there is a meaningful causal link. For example, TREND could be used to analyse the relationship between air temperature and precipitation levels. It is expected that as average temperatures at the Earth's surface rise, more evaporation occurs resulting in increased precipitation.

7.15 Data visualisation

Data visualisation is the use of charts and diagrams to present information. The advantage of these is that high level information can often be more quickly understood if presented in the form of charts and diagrams than just providing numerical data.

Many such visualisations are provided on "dashboards" which provide users with up to date summaries of key data. In performance management, performance dashboards are often used by senior management to monitor the performance of the organisation using key performance indicators that reflect the critical success factors of the business.

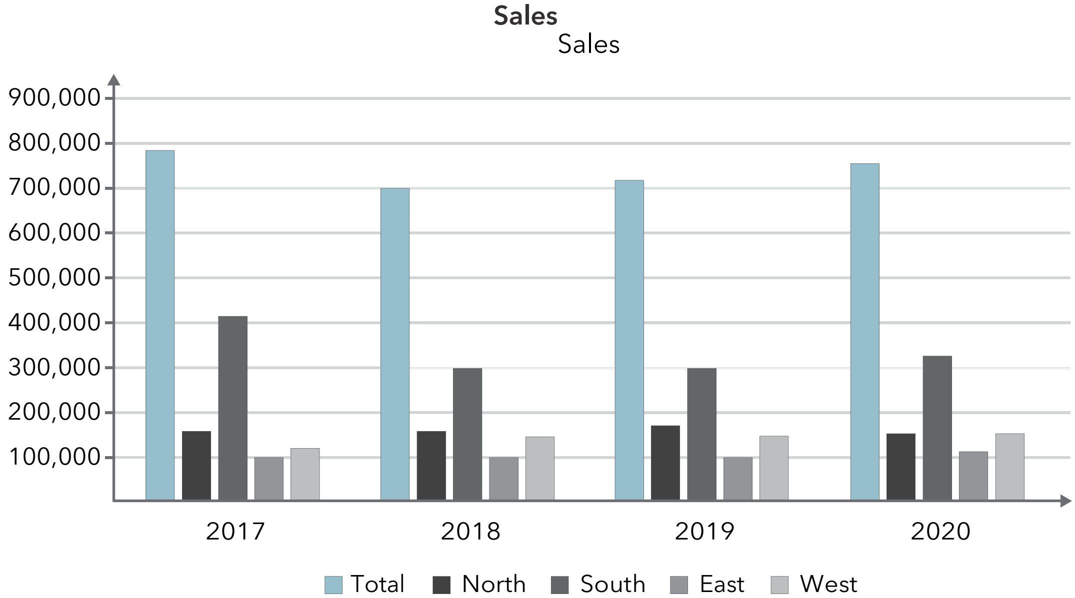
You may be provided with visualisations in an exam question and asked to interpret or discuss them. Some of the more common visualisations are shown below.

7.15.1 Bar charts

Bar charts present information where the length of the bars represents the value of the data. Bar charts are useful for presenting discrete data where comparisons are made between different data sets - for example, sales in different periods. Clustered bar charts show the components that make up the total as well as the total itself. They are useful provided that there are not too many sub- components.

If there are too many, the charts begin to become too cluttered and may confuse users:

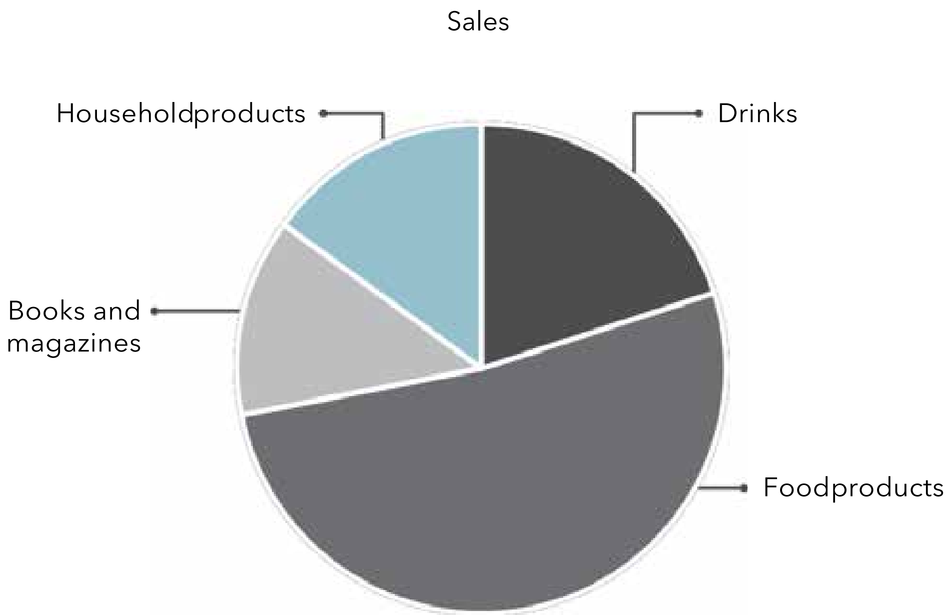
Sales



6.15.2 Pie charts

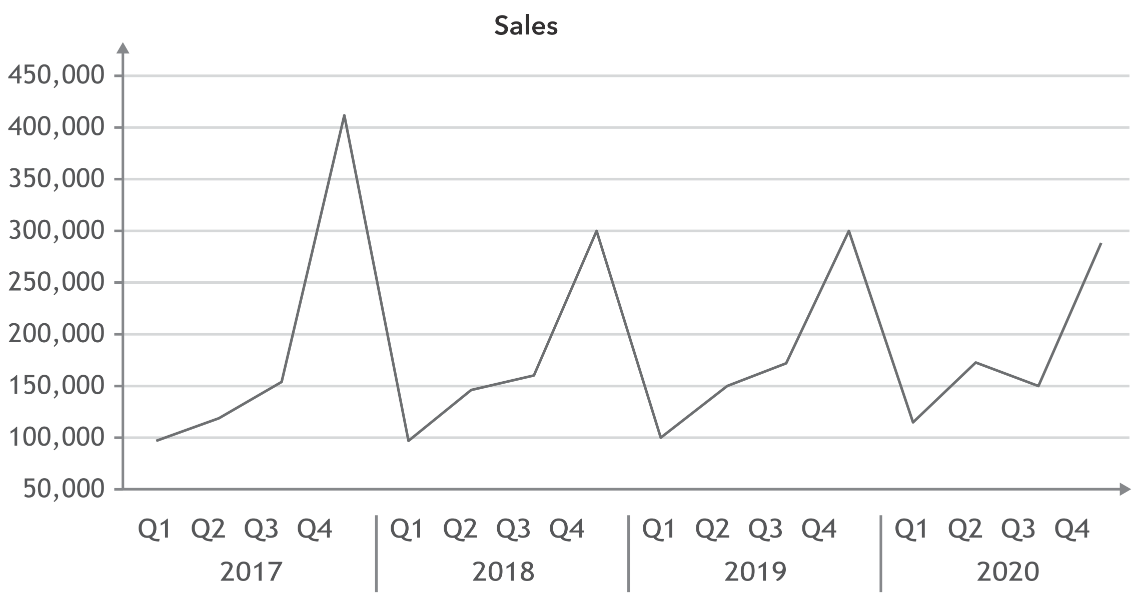
Pie charts are a useful way of showing the components that make up a total.

Sales



6.15.3 Line charts

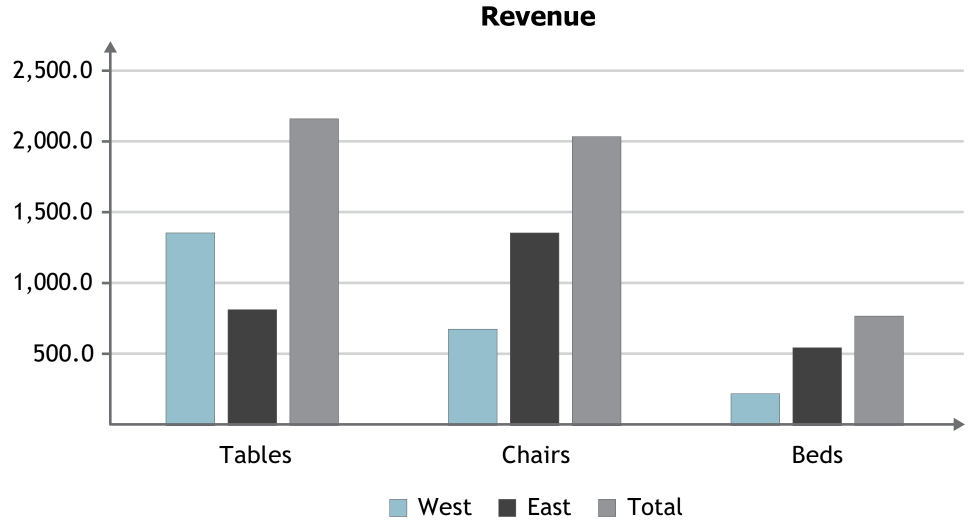
Line charts are useful for showing trends in a data series (e.g. sales over time).



Context example: Visualisations example

The Big Furniture Group (BFG) sells three main product groups; tables, chairs and beds. The company operates through two divisions, West and East, each of which have a similar number of stores.

The following information has been provided by the sales manager:



Gross Profit

Based on the above, the following can performance review has been written:

East has the highest total revenues of £2,700 compared to £2,200 for West However, West's gross profit is higher, at £840 compared to £780 for East. West has achieved an overall gross profit margin of 38.2% compared to 28.9% for West.

The gross margins are not consistently higher for West East is achieving a higher margin for tables and beds. The reason for the higher overall margin achieved by West relates to the mix of sales. More than half of West's revenues (63.6%) are from tables, and these have a much higher profit margin than the other two products. Only 29.6% of East's revenue comes from sales of tables. It appears that West has been selling tables for a lower price than East, given the lower margins achieved, but this has been a smart move as the 3.6% drop in gross margin has led to almost double the sales achieved by East for tables.

East has achieved 133% more revenue from the sale of chairs than West. However, the difference in gross margin for chairs is very large - 25% for West compared to 14.3% for East. This suggests that very large discounts were given for chairs by East, which would explain the higher revenues. It is questionable whether this was a good decision. Although East did achieve revenue from chairs that was £800 higher than West, it only achieved £50 more gross profit, which suggests that excessive discounting was needed to make the additional sales. Also, gross margins on chairs are much lower than gross margins on tables, so East has focussed its sales effort on the wrong product.

Where East does appear to have done better than West is in the sale of beds, where it achieved higher revenues and higher gross margins. However, since the sale of beds accounted for only 18.5% of East's revenues, this has not compensated for the lower performance on the sale of tables.

Looking at the longer term trends for total company revenues, in 2016 sales of tables were around 2,600, sales of chairs 2,100 and sales of beds around 600. Since then there has been a slight but steady decline in sales of tables. Sales of chairs remains fairly constant, and sales of beds have been increasing slightly. It would be worth identifying the reason for the decline in sales from tables, as these have the highest margin, so if the decline can be averted, that would help keep profit margins from declining.

In summary, West has performed better than East in terms of achieving higher gross profits, due to focussing on the sale of tables, which have a higher margin than chairs. East should be encouraged to focus more on the sale of tables in future and not offer such large discounts for chairs.

WORKINGS

It is difficult to read precise amounts from the graphs, so the following figures are approximate:

	Tables	Chairs	Beds	Total
West revenue	1,400	600	200	2,200
East revenue	800	1,400	500	2,700
West gross profit	650	150	40	840
East gross profit	400	200	180	780
West gross margin	46.4%	25%	20%	38.2%
East gross margin	50%	14.3%	36%	28.9%

8 Obtaining more information

Section overview

In the examination, you may be required to comment on the limitations of the data or information which you are provided with, and draw "inferences relating to its completeness, accuracy and credibility". If you feel that the data available is unreliable, you should also be prepared to suggest how it could be improved, or what other sources of data might be available.

You may be required to analyse a statement or report and, on the basis of the information available, provide an explanation of the position, prospects and risk of a business. Having made your analysis or given your explanation, you should go on to consider the risk that your explanation may be incorrect because of limitations in the data or information available.

You would need to explain what these limitations are.

Data available for analysis may be unreliable, possibly because it is incomplete or because it comes from an unreliable source. In this situation, the accountant should consider whether the quality of the information can be improved. The learning outcomes for this subject call for an ability to "assess the extent to which the limited assurance and reasonable assurance engagements can identify and mitigate information risks in this context".

In other words:

- What additional information might you be able to obtain?
- Where would the information be obtained?
- How reliable would it be? What would be the limitations of any additional information you can obtain? Would your additional information be able to provide reasonable assurance, or only limited assurance?

8.1 Limitations of the available data

Even though the exam question is unlikely to ask you specifically to comment on limitations in the data provided, you should be prepared to demonstrate that you are aware of any weaknesses in your analysis due to unreliable/incomplete information.

You should also be prepared to indicate what information you would like to obtain, but make sure that your suggestions are realistic.

(a) It is inappropriate to suggest the need for information that could not be obtained for practical reasons or which would be too expensive to obtain and not worth the cost.

(b) Any data obtainable on the industry and competitors will help to provide a benchmark for the performance of the business. However, the amount of information about competitors may be limited and you might need to indicate the sources of any such additional data.

Example

The financial information in a case study or scenario is likely to be in the form of a summary. You might recommend that:

- more detailed information would be useful, such as a breakdown of revenues or profits by product, country or business unit
- where you have been provided with historical information for analysis purposes at five-yearly intervals, data for the years in between would help assess the trend more accurately
- where average figures have been given, information about variations around the average might be useful, to indicate variability and risk

Professional skills focus: Concluding, recommending and communicating

The ability to make recommendations based on valid evidence is one of the professional skills tested

in ACA exams. When formulating recommendations, it is important to state the limitations of the data you have been provided with, where relevant, even if the exam requirement does not specifically require this. You may also wish to suggest additional information sources to help strengthen your recommendations.

Analysing data

Data may be presented in a pre-populated spreadsheet, requiring further analysis. Spreadsheet functionality can be used to interrogate such data and draw conclusions. For example, SUMIFS adds the values in a range of cells that meet multiple criteria and is used in the illustration below (XY data) to identify sales revenues per country per month. Guidance on how to use SUMIFS can be found in Spreadsheet Formulae for Strategic Business Management.

Worked example: XY data

XY is a small company that makes and sells two specialist components: the A and the B. Sales areas are in Spain, Germany and Italy but production occurs in the UK. Two years ago a sales management system was introduced in an attempt to improve management information.

Sales are made in Euros but are recorded in the sales management system in £. The sales manager for each area receives an annual bonus in September (after the European summer holidays have finished) based on these £ revenues.

XY's production team estimate monthly production requirements by reviewing last year's sales data. They keep zero inventory. Recently, the production team has been criticised because components are out of stock when the sales team try to ship them to customers. The production team complain that this is the fault of the sales team because the sales information is not accurate.

Data available in the sales system is shown below:

	A	B	C	D
1	Month	Sales area	Product	Sales revenue £'000
2	Jun	Spain	B	54
3	Aug	Germany	B	72
4	Jun	Germany	B	12
5	Jun	Italy	B	23
6	Aug	Italy	B	78
7	Jun	Italy	A	32
8	July	Germany	A	3
9	Jun	Spain	B	31
10	Aug	Germany	A	105
11	July	Italy	A	6
12	Aug	Spain	A	44
13	Aug	Italy	A	79
14	Jun	Germany	A	31
15	Jun	Italy	**B**	23
16	Aug	Spain	B	104
17	July	Spain	A	7
18	Aug	Germany	B	13

Requirement

Using SUMIFS functionality, analyse the data provided and assess the problems with the current approach to recording and using sales data.

Identify additional information that would be useful in assessing the sales data.

Solution

An analysis of the data has been carried out using the SUMIFS functionality. To ensure that formulae have captured all the relevant data, it is good spreadsheet practice to reconcile spreadsheet numbers. For example total sales revenue in D19 should reconcile to Cell K8.

The formula in Cell H2 looks at the sales revenue (column D) for June (column A), for Spain (column B) and for Product A (column C).

=SUMIFS($D$2:$D$18,$A$2:$A$18,"Jun",$B$2:$B$18,"Spain",$C$2:$C$18,"A")

	A	B	C	D	E	F	G	H	I	J	K
3	Aug	Germany	B	72			B	85	0	104	189
1	Month	Country	Product	Sales reve nue £'00 0		**Country**	**Product**	**June**	**July**	**Aug**	**Total**
2	Jun	Spain	B	54		**Spain**	A	0	7	44	51
4	Jun	German y	B	12		**Italy**	A	32	6	79	117
5	Jun	Italy	B	23			B	46	0	78	124
6	Aug	Italy	B	78		**Germany**	A	31	3	105	139
7	Jun	Italy	A	32			B	12	0	85	97
8	July	Germany	A	3		**Total**		206	16	495	**717**
9	Jun	Spain	B	31							
10	Aug	Germany	A	105							
11	July	Italy	A	6							
12	Aug	Spain	A	44							
13	Aug	Italy	A	79							
14	Jun	Germany	A	31							
15	Jun	Italy	B	23							
16	Aug	Spain	B	104							
17	July	Spain	A	7							
18	Aug	Germany	B	13							
19	**TOTAL**			**717**							

Problems with XY's sales **data**(1) Incomplete data

Some products appear to have no sales at all in July, suggesting that the sales data recorded by the sales managers could be incomplete. For example, in Spain there are no sales revenues for product B in July despite there being £85,000 and £104,000 in June and August respectively. The lack of sales may be attributable to the annual European holidays but could also be caused by delays in sales managers recording the sales in the system.

(2) Overstated data

The sales figures in August are significantly higher than in the months of June and July. Whilst sales teams may have made more sales in August because the summer holidays are over, it could also suggest that as many sales as possible are being pushed through in August in order to secure a higher bonus.

(3) Production problems

The production team are relying on data that is potentially inaccurate. For example, if sales occur in July but are not recorded on the system due to sales manager holidays, components will be out of stock when customers require them. Inaccurate and incomplete data could result in the loss of customers in the long term.

(4) Lack of integrated objectives

The system has been set up to meet the needs of the sales team but does not address the requirements of the production team who are struggling to forecast production requirements. The current system produces inaccurate management information affecting decision making and may also result in dissatisfied customers if stock is not available when required.

Additional information

- Annual sales figures for the last three years will help XY to understand overall sales trends to assess whether the sample data provided is in line with previous years. For example, are sales always lower in July than in August?
- Exchange rate information used to record the sales revenue would allow XY to assess whether all the sales managers are recording their sales at the same Euro/£ exchange rate. This could influence the bonus received.
- Clarity should be sought over the different objectives and responsibilities in relation to the system. For example, are sales managers measured on the accuracy and timeliness of the information they input to the system? Is the production team penalised for failing to meet customer demand?

Tutorial Note
Be prepared to question the data provided and apply professional scepticism and judgement. After using spreadsheet functionality to analyse the data, assess whether it appears complete and accurate. For example, is it realistic that some products have no sales in July even though they have large sales in June and August? Consider why sales suddenly peak in August. Could the data be manipulated in any way? The scenario hints at problems with the sales data so use these to guide your answer.

8.2 Assurance engagements

Definition

Assurance engagement: An assurance engagement is one in which a practitioner aims to obtain sufficient appropriate evidence to express a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the outcome of the evaluation or measurement of an underlying subject matter against criteria.

The most common type of assurance engagement is the external audit. However, there are a range of other assurance engagements an accountant can undertake (as we have seen in earlier chapters, for example in the context of assurance over third party operations, or due diligence (Strategic choice)). The basic principles and procedures for the performance of these assurance engagements are provided by International Standard on Assurance Engagements (ISAE) 3000 (Revised), *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board (IAASB). You should already be familiar with this standard from the Audit and Assurance paper at the Professional Level; however, we will include a brief reminder of its key points here.

ISAE 3000 (Revised) distinguishes between two types of assurance engagement:

- **reasonable assurance engagements**, which result in a **positive expression of opinion** and where the level of assurance given is deemed to be high (eg,'the management has operated an effective system of internal controls'); and
- **Limited assurance engagements**, which result in **negative assurance** and where the level of assurance given is deemed to be moderate (eg,'nothing has come to our attention that indicates significant deficiencies in internal control').

Assurance engagements performed by professional accountants are normally intended to **enhance the credibility of information** about a subject matter by evaluating whether the subject matter conforms in all material respects with suitable criteria, thereby improving the likelihood that the information will meet the needs of an intended user. In this regard, the level of assurance provided by the professional accountant's conclusion conveys the degree of confidence that the intended user may place on the credibility of the subject matter.

There is a broad range of assurance engagements, which may include any of the following areas:

- engagements to report on a wide range of subject matters covering financial and non-financial information
- engagements intended to provide high or moderate levels of assurance
- **attestation engagements** (where the underlying subject matter has not been measured or evaluated by the practitioner, but the practitioner concludes whether or not the subject matter information is free from material misstatement) and **direct engagements** (where the underlying subject matter has been measured and evaluated by the practitioner, and the practitioner then presents conclusions on the reported outcome in the assurance report)
- engagements to report internally and externally
- engagements in the private and public sector

Specific examples of assurance assignments include:

- assurance attaching to special purpose financial statements
- adequacy of internal controls
- reliability and adequacy of IT systems
- environmental and social matters
- risk assessment
- regulatory compliance
- verification of contractual compliance

8.2.1 Preconditions for an assurance engagement

Before accepting an assurance engagement, a practitioner needs to establish that the preconditions for an assurance engagement are present.

This means that the roles and responsibilities of the parties are suitable in the circumstances, and the engagement has the following characteristics:

- The underlying subject matter is appropriate.
- The criteria to be applied in preparing the subject matter information are suitable and will be available to the intended users.
- The practitioner will have access to the evidence needed to support their conclusion.
- The practitioner's conclusion is contained in a written report.
- There is a rational purpose for the engagement.

In addition, the practitioner should only accept an assurance engagement where there is no reason to believe that relevant ethical requirements – including independence – will not be satisfied, and provided that the persons who will perform the engagement have the appropriate competences and capabilities to do so.

8.2.2 Elements of an assurance engagement

An assurance engagement will normally exhibit the following elements:

- A **three party relationship** involving:
  - a professional accountant (the auditor or 'practitioner')
  - a responsible party (the client company)
  - an intended user (eg, investors, regulators)
- **Subject matter** (ie, the information or issue to be attested)
- **Suitable criteria** (ie, standards or benchmarks to evaluate the subject matter)
- An **engagement process** (the terms of the engagement and process)
- A **conclusion** (ie, a written assurance report)

Planning

Planning an assurance engagement will normally include considering the following:

- terms of the engagement
- characteristics of the subject matter and the identified criteria
- the engagement process and sources of evidence
- understanding the entity, the environment and the risks
- identifying intended users and their needs
- personnel requirements to complete the assignment

The practitioner should also:

- obtain an understanding of the subject matter
- assess the suitability of the criteria to evaluate or measure the subject matter
- consider materiality and engagement risk

Obtaining evidence

The practitioner should obtain sufficient appropriate evidence on which to base the conclusion. This may include:

- obtaining representations from responsible parties

- considering the effect of subsequent events

Conclusions

The professional accountant should express a conclusion that provides a level of assurance as to whether the subject matter conforms, in all material respects, with the identified suitable criteria.

The ISAE **does not require a standardised format for reporting**. However, it states that the assurance report will normally include the following elements:

- a title that indicates the report is an independent assurance report
- an addressee
- an identification of the subject matter (eg, period covered, qualitative vs quantitative, objective vs subjective)
- an identification of the criteria (assertions, measurement methods, interpretations, regulations)
- inherent limitations
- specific users and intended purposes
- responsible parties and responsibilities
- statement that the work was performed in accordance with ISAEs
- summary of work performed
- conclusion
- report date
- name and location of practitioner giving the report

The professional accountant's conclusion provides a level of assurance about the subject matter, either reasonable or limited. **Absolute assurance is generally not attainable** as a result of such factors as:

- the use of selective testing
- the inherent limitations of control systems
- the fact that much of the evidence available to the professional accountant is persuasive, rather than conclusive
- the use of judgement in gathering evidence and drawing conclusions, based on that evidence
- in some cases, the characteristics of the subject matter

Therefore, professional accountants ordinarily undertake engagements to provide one of only two distinct levels: a reasonable or limited assurance. These engagements are affected by various elements; for example, the degree of precision associated with the subject matter, the nature, timing and extent of procedures, and the sufficiency and appropriateness of the evidence available to support a conclusion.

8.2.3 Consulting engagements

Assurance engagements are associated with engagements that are initiated and paid for by one party, for the purpose of providing an independent opinion to someone else.

In the context of data analysis, obtaining better-quality information could be a **consulting engagement** rather than an assurance engagement. The key issue remains: What additional information can be obtained, how reliable will it be, and how would the additional information enable me to reconsider or adjust my conclusions?

8.2.4 Illustration: Analysis of a financial forecast

An accountant may be asked to comment on the implications of a financial forecast that has been prepared by the operations management of a client company.

The initial judgement of the accountant may be to explain the financial or strategic implications of the forecast, but question the reliability of the forecast. It may be possible to carry out a consultancy engagement to assess the reliability of the forecast.

The aim of the engagement would be to obtain sufficient appropriate evidence as to whether:

- management's best-estimate assumptions on which the prospective financial information is based are **not unreasonable**; and
- the prospective financial information is **properly prepared** on the basis of these assumptions.

The accountant would need to consider:

- the likelihood of material misstatement
- the competence of management regarding the preparation of financial forecasts

  (based, perhaps, on previous experience)
- the extent to which the forecast is affected by management's judgement
- the adequacy and reliability of the underlying data

The accountant should have **sufficient knowledge** of the business to be able to evaluate the significant assumptions that management have made.

Information in a financial forecast is subjective information. It is impossible for an accountant to give the same level of assurance regarding forecasts as for historical financial information.

Limited assurance can be given in the form of a negative opinion – there is nothing to suggest that the forecast is inappropriate.

Where an assurance engagement is for the benefit of management of the client company, a consultancy engagement might be more appropriate. In this type of engagement, the accountancy firm assesses the degree of reliability in the forecast and perhaps provides an alternative forecast based on different assumptions.

With any forecast, however, it is important to understand the assumptions and recognise that these may well prove incorrect.

8.2.5 Assurance over prospective financial information

Financial forecasts – whether they are produced for internal management purposes or for external use – are the most common type of prospective financial information.

ISAE 3400, *The Examination of Prospective Financial Information* deals with the issues an auditor should consider when accepting an assurance engagement of this sort, and the examination procedures they should carry out.

We discussed ISAE 3400 in more detail in Strategic implementation earlier in this Workbook, in the context of assurance over business plans.

8.3 Assurance and non-financial information

Although the focus of corporate reporting has traditionally been on financial reporting, companies now disclose a much broader range of information; information which goes far beyond traditional financial reporting. For example, companies now regularly report non-financial information including:

(a) the strategic report or **management commentary** (see Strategic analysis of this Workbook), and other statements which are contained in their annual report: corporate governance statements; information on risk management policies; internal controls or wider operating data

(b) corporate responsibility reporting on environmental, social and economic performance ('triple bottom line')

(c) reporting on matters of public interest: for example, carbon emissions, or quality of service provision. For example, reporting requirements imposed by regulators in the UK require water companies to disclose detailed operating data relating to water quality, leakages and customer service.

Moreover, although this non-financial information does not form part of a company's audited financial statements, stakeholders want to know that the information is **credible** and **reliable**. Therefore, there is also demand for external assurance over this non-financial information.

Providing this assurance over non-financial information will also help prevent an **expectation gap**. Such a gap could arise if stakeholders perceive that the auditors' work, and ultimately their opinion, extends beyond the information in the accounts to non-financial information contained in other elements of the annual report. Such information could include disclosures about oil and gas reserves, research and development (R&D) pipelines (particularly for pharmaceutical companies) and audience size (for entertainment and media companies). This information is not audited but, nevertheless, it relates to key performance areas of the companies.

Management information

This demand for a broader range of non-financial information also means that companies may need to review or revise their management information systems. If, historically, these systems have been designed to provide financial information, they may not capture the additional non-financial information which companies now need to monitor and report.

Therefore, information systems may be another area in which external companies can provide assurance. In this case, the assurance sought could be that the technology systems, and the processes they support, are functioning as intended.

We will look at information and information systems in more detail in the next chapter of this Workbook. However, in the context of data analysis, it remains important to consider whether the information systems that are generating the data being analysed appear robust and reliable.

Worked example: Television networks

One of the major US television networks has seen external reports that indicate the following changes in TV viewing habits of US consumers:

- The Nielsen ratings for TV viewing show a large year on year fall in television ratings for programmes of all the major US networks.
- An independent consulting group has reported a survey finding that live and same-day viewing by people aged between 18 and 49 has fallen by 10% in one year, for programmes broadcast by the major TV networks in the US.
- The TV companies believe that TV viewing is at an all-time high. The decline in live watching is offset by strong growth in viewing through digital recorders, on-demand

videos and online streaming to computers and mobile devices.

Some major advertisers are now arguing that falling numbers of live viewers means that rates for advertising should be reduced. The TV companies are inclined to argue that changing viewing habits, from live viewing to time-shifting, means more viewers, and advertising rates should therefore increase.

Requirement

What additional information may help to resolve the differences in opinion between advertisers and TV networks, and where might this information be obtained?

Solution

It would be useful to know:

- whether viewers who watch programmes at a later time, rather than live or same-day, are in the habit of fast-forwarding through advertising breaks, and whether this affects viewing numbers for advertisements (but not sponsorship of TV programmes)
- whether advertisers have effective alternatives to TV as a medium for advertising

Information on these issues could be obtained by means of independent research, but the quality of the research and the information it produces could be challenged and disputed. In this example, additional information may therefore add little to the argument.

Context example: Assurance at Channel 4

The remit of Channel 4 television in the UK, as laid out in legislation by Parliament, requires it to be innovative, experimental, distinctive and diverse.

Channel 4 is unique in the way it is set up. It operates as a publicly owned, commercially self- sufficient, not for profit entity. This operating model differentiates Channel 4 from the publicly funded BBC and from commercially driven competitors, whose primary concern is with delivering shareholder value.

By contrast, Channel 4's sole concern is with the delivery of its remit, and its commercial and financial strategy is designed to support that remit.

Under the Digital Economy Act, Channel 4 is required to publish a Statement of Media Content Policy (SMCP), outlining how it has delivered against its remit in the preceding year, and how it plans to do so in the year ahead.

The SMCP is included in Channel 4's Annual Report, and includes information and key measures relating to the corporation's spending on productions, and details about the programmes produced, and how they fulfil Channel 4's brief for diversity and innovation. Channel 4 has developed a methodology to cover specific definitions, how data for measures are selected, and how measures are calculated.

Although the SMCP does not form part of Channel 4's audited financial statements, the information in it is independently assured by Deloitte, under a limited assurance engagement (as defined in ISAE 3000 (Revised)).

In their Assurance report, Deloitte highlight that their primary procedures in order to gain assurance over the report consisted of:

- interviewing managers at Channel 4's head office, including those with operational responsibility for preparing the assured disclosures
- evaluating the processes and controls for managing, measuring, collating and reporting the assured disclosures, including the application of the methodology within Channel 4's

internal guidelines to the underlying assumptions; and

- testing the compilation of a representative sample of Channel 4's SMCP data, selected on the basis of their inherent risk and materiality to Channel 4.

One of the features of Channel 4's SMCP report is that it covers a number of different disclosures, clearly identified in a methodology document. Having such a document is important, because it ensures that Channel 4 reports its performance across a range of key measures, consistently applied from year to year, rather than selectively only including those measures in which it has performed well. This highlights one of the key criteria for assurance engagements: **neutrality**. The criteria selected to measure performance should be free from bias.

Another important criterion for assurance engagements is **reliability** – selecting measures which allow consistent evaluation of information. For example, if similar entities use different criteria to assess the same aspect of performance, it will make it very difficult to make any meaningful (or reliable) comparison of performance between the two entities. This issue reiterates the points made in the case example earlier in this chapter about 'like for like' sales. If different stores calculate 'like for like' sales on different bases, and if the calculations vary from year to year, it will be very difficult to benchmark performance on a reliable basis.

8.4 Agreed-upon procedures

Agreed-upon procedures (AUP) assignments are dealt with by International Standard on Related Services (ISRS) 4400, *Engagements to Perform Agreed-Upon Procedures Regarding Financial Information*, also issued by the IAASB.

(Note, however, that ISRSs have not been adopted in the UK.)

In an engagement to perform AUP, an auditor is engaged to carry out those specific procedures of an audit nature to which the auditor and the entity and any appropriate third parties have agreed, and to report on the **factual** findings of those procedures. The report also describes the purpose of the engagement and describes the procedures undertaken in sufficient detail to communicate the nature and extent of the work performed.

Crucially, though – in contrast to engagements in which an auditor provides an opinion or a conclusion – no assurance is expressed in an AUP engagement, and the recipients of the report **must form their own conclusions** from the report by the auditor. The report is restricted to those parties that have agreed to the procedures to be performed, since others, unaware of the reasons for the procedures, may misinterpret the results.

The value of AUP comes from the auditor objectively carrying out procedures and tests with relevant expertise, thus saving the engaging party from having to carry out the procedures and tests themselves. AUP are most effective where the engaging party is knowledgeable enough to identify the key matters to focus on, to discuss and agree the procedures to be performed, and to interpret the findings of the AUP in their own decision-making.

Interactive question 4: Company-wide cost control

You are a trainee Chartered Accountant at Miles, Smith and Bowring LLP (MSB), a firm of accountants and business advisers.

Along with your manager, you have recently attended a meeting at Hopman Heavies plc (HH), a company operating in the mechanical engineering sector, which manufactures heavy lifting equipment such as cranes, bulldozers and hydraulic elevation platforms. HH is not audited by MSB.

During the meeting, the CEO of HH explained that he was concerned about cost control within the company:

"Costs have been allowed to increase without adequate controls and this must change. For example, a contract with a new supplier of hydraulic systems, Zydrau plc, is being considered, and the method of determining the contract price needs to be reviewed closely, as the hydraulic systems are a key component item for all the types of equipment we manufacture."

The CEO continued by providing some more details about the contract with Zydrau plc:

"There has been preliminary agreement by HH on a three-year contract with Zydrau. Given the significance of hydraulics as a component cost for HH, we are anxious not to pay more than is necessary to suppliers. Unfortunately, however, the nature of each piece of hydraulics equipment supplied varies, and so agreeing a fixed price is not possible.

"A provisional contract has been drawn up using a pricing formula of: direct cost incurred on the contract plus 8%. Direct cost is defined in the provisional contract as the incremental costs to Zydrau caused by supplying equipment to HH."

The CEO explained that the contract would require independent scrutiny of Zydrau's management accounts in order to substantiate the amount of direct costs applicable to the contract with HH. He has requested MSB to carry out this engagement, but admitted he is not sure of the most appropriate basis for the engagement. he said the interim Finance Director at HH had suggested that the engagement could be carried out as either an assurance assignment or on an 'agreed-upon procedures' basis. However, the CEO admitted he was not sure what this meant.

Zydrau has agreed, in principle, to either of these types of arrangement.

Requirement

Advise the CEO, with reasons, whether: (1) an assurance assignment with a report giving a conclusion; or (2) an 'agreed-upon procedures' assignment would be more appropriate.

See **Answer** at the end of this chapter.

8.5 Assurance in the Strategic Business Management exam

We have referred to assurance engagements on several occasions throughout this Workbook, and it is worthwhile considering how you might approach a requirement about an assurance engagement in your exam.

The following are some general points which you may find useful to consider in relation to a question about assurance engagements:

(a) What is the purpose of the assurance engagement?

(b) What is the nature of the subject matter for which assurance is required?

(c) Who is providing the information on which assurance is required, and who is the information user?

(d) What are the benchmarks or standards against which the information will be judged? (Or in the case of financial forecasts, what are the assumptions made in the forecast and what is the reliability of any basic information used as a basis for the forecast?)

(e) How would the assurance work be carried out? Where/how would the accountant find evidence?

(f) Can the accountant provide reasonable assurance, or just limited assurance? (Or if the accountant can provide no assurance at all, should they withdraw from the engagement, perhaps?)

9 Data analysis in the Strategic Business Management exam

Section overview

This chapter concludes with a suggested approach to the analysis of the data you may undertake in the case study scenario in your exam. The 'What-How-Why-When-So what?' method described should already be familiar to you from your Business Strategy and Technology studies, but it is illustrated in the suggested solution to the interactive question which follows.

9.1 Key weaknesses in answers

One of the common weaknesses in candidates' answers in the Advanced Level exams is a lack of meaningful analysis.

The following list highlights weaknesses commonly identified in exam answers and suggests ways to address these:

(a) Restating facts or numbers without applying them to the context of the question

A common failing is to explain **what** has happened rather than **why**, eg, stating that sales have grown by 15% in the period but not indicating why they have done so.

Solution: Including the word 'because' in your answer changes the 'what' into a 'why'. In most cases a good answer passes the 'because' test, eg,"Market share has fallen from 35% to 29% **because** of the entry of a new lower-cost competitor".

The 'because' should be related to specific information in the scenario, demonstrating that you have understood the relationship between the financial/quantitative information and the business issues.

(b) Failing to use the additional information from the scenario in answers, resulting in generic answers that could apply to any company, rather than the one in the scenario

Solution: Make specific points, focusing on the particular organisation and relating to the circumstances in the scenario.

Eg,"Falling R&D expenditure may be a problem for XYZ Ltd because it has built market share on the basis of its innovative products."

(c) Interpreting figures/results in isolation

Solution: Link the figures/analysis, eg, if market share has increased but gross margins have decreased, the company may have made a decision to reduce the selling price as part of a market penetration strategy.

(d) Focusing on a narrow range of measures

Financial measures alone will not provide the full picture and are often the result of other factors, not the cause.

Solution: Your answer should, where possible, address a variety of performance indicators. Use the balanced scorecard headings to help you consider a wider range of measures. Remember that these measures will often help you understand what is causing the strategy to succeed or fail.

(e) Failing to use numerical analysis to support the rest of your answer

The data analysis element may be one of the first requirements. Conclusions that you draw from this will help in answering later parts of the question.

Solution: Consider where else in your answer the analysis may be relevant/how you can 'make the numbers talk'.

Eg, if the data analysis shows that the business is currently loss making and that sales and profitability are forecast to decline further, then the business cannot afford to do nothing. Any new strategy that is expected to address this decline or increase returns should be acceptable to the shareholders.

(f) Failing to explain trends in the data by identifying cause and effect relationships

Solution: Examine the information from different perspectives. This may, for example, include analysing information into ratios or percentages based on the data provided.

Eg, where sales revenues are growing by (say) 10% per year, but the number of branches/outlets is growing by 15% per year, then calculating the sales per branch/outlet will show that sales per branch is, on average, falling. Thus, growth in overall sales revenue may be due to investment in more outlets, rather than generic growth in sales per branch because of improved efficiency or stronger market conditions. Alternatively, sales revenue growth might be analysed in relation to volume growth, changes in selling prices and changes in sales mix. Analysis of this data may reveal the relative causes (quantitatively) of sales revenue growth from each of these underlying factors.

(g) Failing to achieve a reasonable balance between numerical and descriptive analysis

Some weak answers are almost entirely descriptive. Other weak answers include enough calculations, but their descriptive analysis is little more than stating which numbers have gone up and which have gone down.

Solution: Both numerical and descriptive analysis are important and need due emphasis. Two possible approaches are:

(1) Set out a comprehensive numerical analysis at the beginning of the answer or in an appendix with workings (eg, in a table). Then produce the descriptive interpretation of these numbers.

(2) Mix the numerical analysis with the descriptive analysis by producing calculations as each issue arises.

In general, approach (a) tends to produce better answers with a more systematic evaluation of the issues. The numerical analysis tends to be more comprehensive and better thought out, with clearer workings. However, if you use approach (a) make sure that you are careful with your time allocation. If you spend too much time on calculations, you may not have enough time to produce sufficient descriptive analysis.

(h) Failing to understand how IFRS reported profit may fail to reflect the underlying performance of the business

Solution: Question whether changes in profit, as measured by IFRS, reflect changes in underlying performance. Consider, for instance, that good strategic decisions may take some time to be reflected in reported profit, which may even fall in the short term.

9.2 Recommended approach

In the light of these weaknesses, the following is a suggestion for the approach to adopt when tackling data analysis:

- Step 1: Review scenario and requirements
- Step 2: Decide what analysis is appropriate
- Step 3: Produce the necessary calculations
- Step 4: Interpret your analysis
- Step 5: State the additional information required

The steps that cause most problems are Steps 3 and 4.

9.3 WHAT-HOW-WHY-WHEN-SO WHAT analysis

It is difficult to produce a universal approach, but one tool which includes both numerical and descriptive elements is: **WHAT-HOW-WHY-WHEN-SO WHAT analysis**.

WHAT	Look at WHAT has happened overall (eg, revenue has increased by 21%).
HOW	'HOW' seeks to identify the reasons why the 'WHAT' element has occurred (eg, sales prices have risen by 10% and monthly sales volumes have risen by 10% following the price change).
WHY	Look for the underlying **causes** of the HOW element, which may be part of the data provided in the question (eg, there have been significant product improvements introduced during the year, with additional features compared to competitors. This has meant that a higher price can be charged but has also resulted in an increase in demand, despite this increased price). 'WHY' is ultimately more important than 'WHAT' in terms of analysis. Explaining what has happened is a necessary starting point, but you then need to use your analytical skills to identify reasons and provide explanations for what has happened. Look for the links between cause and effect. Also, do not simply consider facts in isolation. Think about whether two or more different issues may be attributable to a single cause, or whether a number of different factors are contributing to a single issue/outcome.
WHEN	If you're assessing the impact of changes in strategy over time or in making comparisons, it is important to know WHEN changes occurred (eg, if the price and volume changes above occurred halfway through the year, then the increase in sales revenues for the current year may be limited to, say, 10.5%, but the changes will be more significant in next year's figures).
SO WHAT	The above steps analyse and interpret the nature of the data provided and attempt to identify and explain the underlying causes of any changes in the data. The next stage is to ask the question, '**So, what** are the **consequences** of our analysis for deciding on the future business strategy?' (eg, what are the consequences for profit of the 10% increases in sales price and sales volume after considering the variable cost increases arising from the product improvements and volume increases? How have competitors responded with price changes and improvements in their own products, which may make the consequences next year different from those which occurred this year?).

Also remember, more generally, that when analysing data, it is important to apply **professional scepticism and judgement**. For example, are there any gaps in the data you have been provided? Are there any inconsistencies between that data and other sources? How does the data you have been given interact with data and information from other sources?

9.4 Issues with accounts

When carrying out data analysis, you will need to use what you've learnt specifically about analysing financial statements, in particular:

- distortions and creative accounting policies, such as income smoothing and understated provisions
- the factors determining important figures in the accounts; in particular, operating profit

Adjustments may be needed to the figures reported in the financial accounts before data analysis can be carried out. These may include remeasurement to market value and recognising assets or liabilities that are not included in the accounts. If you are analysing the income statement, you may need to strip out non-operating or non-recurring items from results to be able to make a fairer comparison over time.

Interactive question 5: WG plc

Introduction

WG plc was formed four years ago, following the merger of two large pharmaceutical companies. Prior to the merger, the two companies had been competitors: they believed that by combining forces, the shareholders of each company would benefit from increased profits arising from the rationalisation of manufacturing facilities, distribution networks, and concentration of resources towards more focused research and development (R&D).

With operating outlets in Europe, Asia, the US and Africa, WG plc regards itself as a global company. It employs approximately 50,000 people worldwide and has developed a varied portfolio of products. Its profits before tax last year increased by 20% and represented approximately 35% of revenue. The company declared that its earnings and dividends per share in the same period increased by 15% over the previous financial year.

All manufacturers of pharmaceutical products claim that their pricing policies need to be set at a level to achieve high profitability in order to attract funds from investors. They argue that this is necessary to meet their high R&D commitments. In recent years, WG plc and other pharmaceutical manufacturers have encountered public and governmental challenges to their high levels of profitability.

WG plc encounters strong competition from other world-class pharmaceutical manufacturers but these are few in number. High R&D costs present a major obstacle to potential competitors tempted to enter the industry.

Mission and objectives

The directors of WG plc have defined their overall corporate mission as being to "combat disease by developing innovative medicines and services and providing them to healthcare organisations for the treatment of patients worldwide".

The directors have confirmed their main objective is to sustain profitability while achieving the company's overall mission. They have also explained that WG plc aims to work towards eliminating those diseases for which the company is engaged in providing treatments. Achievement of the profitability objective is continually threatened by patents coming to the end of their lives. Patents give the sole right to make, use and sell a new product for a limited period.

Product development

A large proportion of the company's turnover in recent years has been derived from one particular drug. The patent for this drug expires next year and it is expected that its sales at that time will represent no more than 10% of total revenue. Four years ago, the sales of this drug produced almost half the company's entire revenue.

A new product, Coffstop, has now completed its rigorous development phases and is being marketed to pharmaceutical stores throughout the world by WG plc. It is in competition with a similar drug, Peffstill, produced and marketed by a direct competitor of WG plc. Medical research and opinion has concluded that Coffstop is generally more effective than Peffstill in treating the condition for which they are intended. Both drugs are available over the counter from pharmacies. The directors of WG plc are optimistic that Coffstop will become very popular because of its improved effectiveness over other market products.

The retail market price of Coffstop is £1.50 per bottle, compared with £10 per bottle of Peffstill. However, the recommended dosage of Coffstop is six times more than that for Peffstill. The bought-in costs per bottle to the retail pharmacist are £0.50 and £7.40 for Coffstop and Peffstill respectively.

Initial indications to the management of WG plc are that retail pharmacists tend to prefer to stock Peffstill on the basis that it achieves 2.6 times the level of gross contribution per bottle compared with Coffstop.

It is estimated that the cost to the retailer of holding Coffstop is £0.40 per bottle; and Peffstill, £0.80. The availability of shelf space is a limiting factor for most retailers. The shelf area occupied by each bottle of Coffstop is 18 square centimetres; and 60 square centimetres for each bottle of Peffstill.

Early indications show that the average weekly sales volume for retail outlets stocking both products is 120 bottles of Coffstop and 20 bottles of Peffstill.

Market development

WG plc has experienced slow growth in its mature markets of Western Europe, North America and Japan. These markets contribute 80% of overall revenue but their governments have reduced expenditure on pharmaceutical products in recent years. The company has encountered a rapid sales increase in its expanding markets of Eastern Europe, South America, the Asia Pacific region, India, Africa and the Middle East. The directors of the company hold the view that increasing population growth in these markets is likely to provide substantial opportunities for the company over the next two decades.

R&D

Almost 15% of WG plc's revenue last year was spent on R&D. WG plc has the largest R&D organisation of all pharmaceutical companies worldwide.

Much research is sponsored by national governments and world health organisations. A major piece of research which has recently been undertaken relates to new treatments for malaria, as the disease is now demonstrating some resistance to existing treatments. WG plc has established a 'donation programme' for the new drug in virulent areas for the disease. This means that the company is donating batches of the drug to the health organisations in these areas. The cost of this programme is offset by the sales of the new drug in other areas of the world by making it available to people proposing to travel to the regions where malaria is widespread.

Requirement

On the basis of the information in this report, analyse the main issues facing WG. See **Answer** at the end of this chapter.

Answers to Self-test questions

	Tick off
Financial statements provide a vital source of information about a company's performance, but data analysis might also involve internal data or management information, or data from externally produced reports. The data to be analysed could be non-financial as well as financial.	
When analysing data, it is important to consider how reliable that data is, and therefore how much reliance can be placed on it.	
The data or information in reports can be classified into three broad types: strategic, financial and operational.	
Strategic data analysis could be particularly important in the context of strategic planning: for example highlighting changes in the business environment; the state of the industry; competitor analysis; analysis of resources and competences; and benchmarking.	
Financial analysis could relate to profitability, cash flow, funding and capital structure, or investment appraisal. In addition to performing relevant calculations, it is very important to discuss the strategic or operational significance of your findings from your calculations.	
The 'internet of things' and big data mean that the volume and variety of data available to organisations is greater than ever before. Being able to analyse this data to uncover previously hidden patterns of information and insight could be a source of competitive advantage for organisations.	
The 'What – How – Why – When – So what' method is suggested as an approach for analysing data in the context of the exam case study scenarios.	
Although some operational data will be financial (eg, activity costs) much operational data is likely to be non-financial (eg, process efficiency, quality management). Operational data is very important from a control perspective.	
ompanies are now disclosing an increasing amount of non-financial information which does not form part of their audited financial statements. Accordingly, there is an increase in demand for external assurance over this information, to increase stakeholders' confidence about the credibility and reliability of the information.	
Analyse the metrics used in sustainability reports.	

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the characteristics of good data and information? (Topic 1)
2.	What is a basic approach for analysing data in reports? (Topic 2)
3.	Who are the main users of financial analysis and what are their different needs? (Topic 4)
4.	What is the difference between efficiency and effectiveness and how can they both be calculated and measured? (Topic 5)
5.	What value does Big Data bring to an organisation? What are the problems associated with Big Data? (Topic 6)
6.	What are the factors that could lead to the results of data analysis being unreliable? (Topic 6)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
2 BTH plc	This question predominantly focuses on financial analysis and therefore requires the calculation of ratios. The chapter content does not list all the ratios you could use so take time to revisit your previous studies and recap on profitability, liquidity, gearing and investor ratios. SBM&L is an open book exam so do not feel you need to commit all the ratios to memory since you can take such information into the exam with you. Remember that this exam is not testing your ability to perform calculations. Instead you need to analyse your numbers and discuss the implications of what they are showing.
4 Malvo Ltd	Data could be formatted in charts or graphs or appear as a data dashboard, as per this question. You need to be comfortable assimilating and interpreting data irrespective of how it is presented. In this question you are asked to use the data to assess the effectiveness of a new IT implementation. Marks will not be awarded for simply conducting data analysis. You must make sense of what the information reveals and draw conclusions in order to answer the question set.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Self-test questions

Answer the following questions.

1 Cumulus Limited

Cumulus Limited has obtained finance to convert a former industrial site in the North of England into an outsourced data centre. The company has received a report from consultants containing the following information.

Another company that opened a larger outsourced data centre four years ago in North Wales has so far leased about one-eighth of its capacity.

Private equity firms are investing in outsourced data centres amid increasing interest in cloud computing. Most outsourced data centres (providing over 80% of total capacity) are located in London, where connectivity is fastest.

The perceived benefit of locating a centre in a region where average temperatures are cooler is that colder temperatures reduce the high costs of keeping IT equipment cool. Lower energy costs, lower costs of land and lower salaries are all reasons why Cumulus expects to offer its services at a lower price than London rivals.

The business strategy of Cumulus is to sell IT capacity wholesale to a small number of large users. A recent trend in the market is growth in demand for co-location facilities, where larger numbers of users are willing to rent smaller quantities of storage space alongside other users.

Technological developments continue to reduce the physical size of storage capacity.

At the moment, Cumulus has no customers signed up, and does not expect to win any until its centre is open and functional.

Requirement

Analyse the implications of this data for the senior management of Cumulus.

2 BTH plc

BTH plc has the following results for the last two years of trading.

BTH plc – INCOME STATEMENT FOR THE YEAR ENDED 31 DECEMBER

	20X7 £'000		**20X8** £'000
Revenue	14,400		17,000
Less cost of sales	11,800		12,600
Gross profit	2,600		4,400
Other expenses	1,000		2,000
Finance costs	200		–
Profit before tax	1,400		2,400
Income tax expense	420		720
Profit for the year	980		1,680

BTH plc – STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER

		20X7		20X8
Non-current assets	£'000	£'000	£'000	£'000
		2,500		4,000
Current assets				
Inventories	1,300		2,000	
Trade receivables	2,000		1,600	
Cash and cash equivalents	2,400		820	
		5,700		4,420
Total assets		8,200		8,420
Equity and liabilities				
Share capital (2.4 million ordinary shares of £1 each)		2,400		2,400
Revaluation surplus		500		500
Retained earnings		1,200		2,100
Non-current liabilities		4,100		5,000
Long-term borrowings		2,600	2,700	-
Current liabilities				
Trade payables	1,080			
Current tax payable	420	1,500	720	3,420
		8,200		8,420

Notes

1 Finance costs represent interest payable on debt.
2 Tax is charged at 30% of profit.
3 Long-term borrowings represent 10% loan stock.
4 Dividends amounting to £520k were paid in 20X7, and £780k was paid in 20X8.
5 The average rate of inflation during the year was 3%.

Requirement

Assess BTH plc's financial performance in 20X8, calculating any ratios that you consider to be useful to help your assessment.

3 Flyway Airline

Flyway Airline (Flyway) is the national airline of Ostland. It was originally owned by the Government but was listed on the local stock exchange after it was sold to private investors more than 20 years ago. The company's objective is to be the best premium global airline.

Flyway provides long- and short-haul services all over the world and is based at its hub at Ostcity airport. Flyway has been hit by a worldwide reduction in air travel due to poor economic conditions. The most recent financial results show a loss and this has caused the board to reconsider its position and take action to address the changed environment.

Flyway has cut its dividend in order to conserve cash and it is trying to rebuild profitability by reducing costs by 14%. The airline is capital intensive, as it maintains a large fleet of modern aircraft. Two major costs for the airline are staff and fuel. In trying to renegotiate working conditions and pay, the management have angered the unionised workforce. There has already been some strike action organised by the unions representing the aircraft crew and ground staff and more is threatened. The staff are upset about changes to pension provisions which will require them to make larger contributions and also a reduction in the number of crew on each aircraft. They believe this will require them to work harder and so they want a compensating pay rise, but nothing has been offered.

Additionally, the board has been considering taking advantage of new technology in aircraft engines by making a large investment (£450 million) in new low-noise, fuel-efficient aircraft in an effort to reduce the environmental complaints surrounding air travel and also to cut costs.

The management accountant has provided the board with some data on Flyway and two of its main competitors (see figures below). Sudland Air is a government-owned and -run airline in the neighbouring country of Sudland. It has a similar mix of business to Flyway and targets a similar market. Eazee Air is currently one of the most successful of the new privately-owned airlines that have gained significant market share over the last 20 years by offering a cheap but basic short-haul service to customers in and around Ostland. Eazee Air sub contracts many of its activities in order to remain flexible.

Data provided by the board (based on figures for the most recent calendar year):

	A	B	C	D	E
1			Flyway	Sudland Air	Eazee Air
2	Passengers('000)		23,649	38,272	35,624
3	Passenger kilometres(millions)		79,618	82,554	40,973
4	Revenue	£m	5,430	7,350	2,170
5	Costs				
6	Fuel	£m	1,480	1,823	535
7	Staff	£m	1,560	2,998	238
8	Staff numbers		32,501	56,065	5,372
9	Operatingprofit	£m	630	54	127
10	Number ofaircraft		182	361	143
11	Average aircraft size(seats)		195	163	125
12	Seat kilometres (millions)		100,654	105,974	46,934

Note: A seat kilometre is generated for every one kilometre flown by an **available** seat on the company's aircraft.

In preparation for the next board meeting, the CEO has asked you to calculate some suitableperformance measures and explain the results.

The CEO also believes that Flyway could be making more use of Big data. He has recently returned from a conference about 'Big data in the Airline industry' where one of the speakers talked about the benefits of big data in relation to four key areas:

- identifying trends in passenger demand and using this to set prices
- understanding and influencing the customer's selection process (in particular, reducing the number of potential customers who look at the details of a flight, or start booking a flight, online, but do not go on to complete the transaction)
- boosting revenue from in-flight sales by optimising the on-board store for individual flights
- understanding customer sentiment and improving customer satisfaction.

Flyway currently offers a standard selection of in-flights products on all of its flights. The CEO has asked you to explain how using big data could help Flyway improve its performance.

Requirements

2.1 Using the data provided, analyse the performance of the three airlines using appropriate performance indicators, and comment on your results.

2.2 Explain how big data could be used to improve Flyway's performance, in relation to the four key areas identified at the conference.

4 Malvo Ltd

Malvo Ltd ('Malvo') is an online retailer which sells a range of electronics products to customers. Malvo doesn't manufacture any products itself but has established good relationships with leading manufacturers. Malvo's management team have identified that fulfilling customer orders quickly and accurately is crucial to customer satisfaction and retaining customers. They have also identified the importance of effective inventory management. Last year, Malvo installed a new computer program which captures data about customer orders and inventory levels. The program produces detailed data which can be analysed in a variety of different ways to identify trends or to produce management information. The dashboard below shows one configuration of the data. However, the dashboard also enables users to track the real-time status of the current day's open ('live') orders – for example, whether they have shipped, or whether they are delayed. Prior to the new computer program being installed, Malvo's management team had to rely on weekly summaries to monitor inventories and sales.

Data dashboard – customer orders and inventory

Volumes – current day

Customer orders open
2,113

Items to ship
2,792

Overdue shipments (to customers)
197

Shipments due from suppliers
126

Late shipments (from suppliers)
11

Top 3 stock items

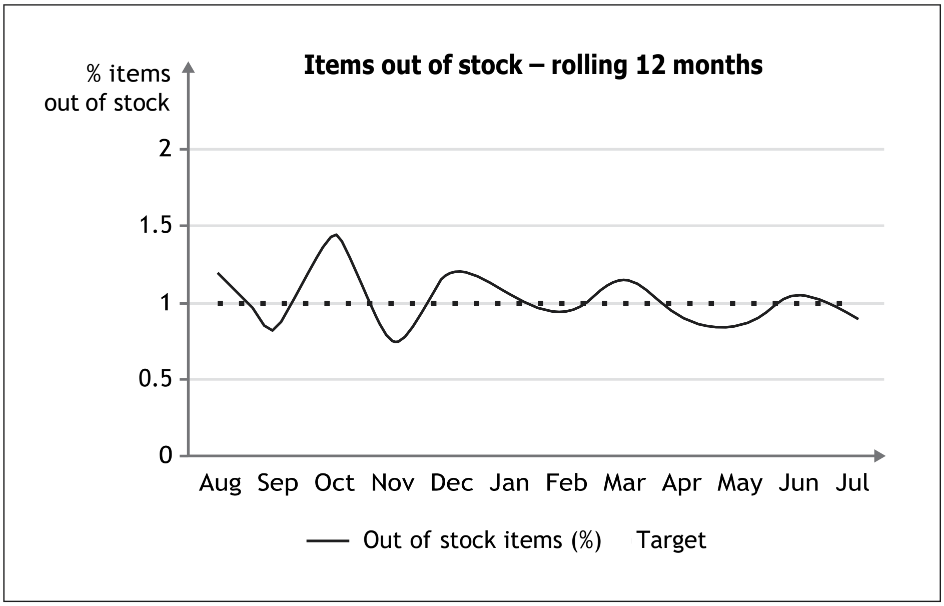
Product	Stock Code	Customer orders	In stock
Electric fans	413072	76	54
Fridge	212016	61	68
Tablet computer	681308	52	39

KPIs	Current month month	Last
Perfect order rate (%)	94.2	94.5
Back order rate (%)	8.5	8.1

Items out of stock - see graph

Top 3 orders

Product	Stock Code	Customer orders	In stock
Electric fans	413072	76	54
Fridge	212016	61	68
Tablet computer	681308	52	39



Back orders are customer orders that cannot be fulfilled when presented, but which the customer is prepared to wait for. The back order rate (%) is the proportion of total customer orders which are back orders.

Perfect order rate: the perfect order rate is the % proportion of total orders which are fulfilled on time, and in full (ie, if multiple products are ordered, then all of them are available and despatched together).

Items out of stock reflects the number (%) of items that are out of stock at the time a customer places an order for that item.

Requirement

Using the dashboard data, analyse how the new computer program helps Malvo to manage its inventory more effectively. Identify further information that could usefully be extracted from the data captured.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Note: The suggested solutions to this question are illustrative and based on the author's assessment. Your views may be different, but they should address the key issues.

Here, the condition of the UK industry is almost certainly the key issue because this is currently thesource of most of the group's revenue.

Strategic implications

The most significant information in the report is probably that the UK business of the group, which accounts for over two-thirds of total revenue, is under pressure.

Customers are more price conscious and discount stores seem to be successful.

Treadway has cut prices and hired more staff, but sales are flat in real terms and profit margins are falling.

The positive aspects of UK business appear to be the performance of smaller convenience stores and online food shopping, but there is no information on revenues or profit margins forthese aspects of operations.

The management of Treadway needs to consider whether the supermarket industry in the UKmay have reached, or be nearing, capacity.

If it is, the challenge is to maintain profitability in the UK business until alternative strategies for growth can be developed and implemented.

1.2 Other information to consider

Other aspects of the information that should be considered are:

- The potential for growth in either Asia or the rest of Europe. Asia may seem to offer higher growth prospects, but there is insufficient information about conditions or prospects in either of these two regions to make a firm judgement.
- The US accounts for just 1% of group sales globally and is making losses. It would seem appropriate to consider disinvestment and pulling out of the US market. Presumably this would result in write-off costs, but we do not know what these might be, or whether a buyer could be found for the US business.
- By cutting back investments in superstores, the group expects to increase free cash flows. What should be done with the money? One option would be to increase annual dividend payouts, which may boost the share price and so the group's P/E ratio.
- Lower investment in new stores may improve annual operating margins, by reducing operating costs. Depending on what the group does with its spare cash, there may be prospects for improvements in return on capital.

These judgements have been based on incomplete information and assumptions about future sales growth in the UK that may be too pessimistic.

Sales growth may recover and consumer preferences for discount products may be relatively short term in nature.

However, the risk of a long-term slowdown in the supermarket industry in the UK suggests that the group should urgently review its strategy and consider alternative ways of achieving long- term growth. More information is needed about:

- market conditions and growth prospects in the rest of Europe and Asia
- the profitability of online sales and convenience stores in the UK, and prospects for growth
- prospects for the UK supermarkets industry. The forecast of no real growth may be correct, and the switch by consumers to lower-price or discount products may well have occurred. If this is the case, other supermarket groups in the UK should be suffering in the same way as Treadway. Competitor analysis, and comparisons of performance with other supermarket groups, could provide useful information in support of the assumptions in the report.

Answer to Interactive question 2

2.1 Competitive performance

	20X1	20X2	20X3	20X4
Market share	(83/895) 9%	(124.5/1,234) 10%	(137/980) 14%	(185/1,056) 18%

The restaurant is therefore taking an increasing proportion of the area's restaurant business, doubling its market share over the four-year period.

The number of proposals submitted to cater for special events has increased dramatically, from 10 proposals submitted in 20X1 to 38 submitted in 20X4, while the **percentage of contracts won as a percentage of proposals submitted** has shown remarkable **growth**.

	20X1	20X2	20X3	20X4
Contracts won as % of proposals submitted	20%	29%	52%	66%

The restaurant appears to be **increasingly effective in winning business** in this developing area.

Financial performance

	20X1	20X2	20X3	20X4	20X1–20X4
Change in revenue		+50%	+10%	+35%	+123%
Change in profit		+84%	+104%	+31%	+393%
Profit margin	14%	17%	32%	31%	

The analysis above shows **continuous growth in revenue** and an even **stronger growth in profitability**. The **increase in profit margins** may be a result of **improved resource utilisation**,with fixed costs as a percentage of revenue falling.

It is clear that **20X2** was a **successful** year compared with 20X1, and that **20X3** results were **even better**. While there was a significant increase in revenue in **20X4**, the increase in profitability was less than in previous years and the **profit margin fell** (admittedly only by 1%). This could indicate the need for **tighter cost control**.

Quality of service

Just under 7% ((5 × 52)/3,750) of meals served in 20X1 were to regular customers, comparedwith over 20% ((26 × 52)/6,700) in 20X4. The business, therefore, has a **growing**

number of regular customers who can be assumed to be happy with the price, level of service, quality of food or, indeed, the total package offered by the restaurant.

The data about **complimentary letters, written complaints** and **cases of food poisoning** does **not paint a clear picture** about quality of service as no definitively clear trends are evident, even when the number of meals served is taken into account.

	20X1	20X2	20X3	20X4
Meals served per complimentary letter	3,750	1,275	2,067	1,117
Meals served per written complaint	469	425	443	479
Meals served per reported case of food poisoning	938	1,020	886	957

Without a yardstick such as rates achieved by competitors, it is therefore **difficult to draw** firm **conclusions** on the quality of service provided by the restaurant, especially as the number of customers almost doubled over the period. More accurate information could possibly be gathered from a large-scale customer satisfaction survey.

Flexibility

One measure of a business's flexibility is **how well it copes with varying levels of demand**. The restaurant's average service delay at peak times shows no clear trend but has fluctuated widely from 47 minutes in 20X2 to less than a third of that in 20X3. When these figures are analysed in conjunction with the average number of customers at peak times, however, it is clear that performance was particularly poor in 20X2 (with a low level of customers but the longest delay), while performance in 20X3 was better. Overall, however, it is clear that there are **problems in** flexing **resources to meet demand at peak times**.

The number of **items on offer each day**, the **new meals introduced** during the year, the **special theme evenings introduced** and the **weekly opening hours** also indicate improving levels of flexibility, reflecting the **increasing choice available to customers**. The number of items on offer has more than doubled over the four-year period, from 4 to 9, the number of new meals introduced has varied between 8 and 27, the number of special theme evenings has increased from 0 to 13, and opening hours increased in 20X3.

Resource utilisation

This is usually measured in terms of **productivity** (output relative to some form of input). Given the information available and assuming the restaurant is open 52 weeks a year, one measure of productivity is **total meals served/opening hours**. This ratio has steadily increased from 2 in 20X1 to 3.6 in 20X4.

Levels of non-productive time (measured by idle time rates and proportion of operating hours with no customers) **declined**.

	20X1	20X2	20X3	20X4
Idle hours	570	540	465	187
Opening hours (weekly × 52)	1,872	1,872	2,080	1,872
Idle time %	30%	29%	22%	10%
Operating hours with no customers as % of opening hours	20%	16%	9%	7%

In conjunction with the increase in the number of meals served (the year on year increases being 36%, 22%, and 8%), these measures would tend to indicate overall improvements in resource utilisation.

The **increase in capacity** by 60% in 20X3 allowed more customers to be seated during peak times (although we do not know if this was due to increasing floor space or to seating more customers in the same space), but it was **not matched by similar increases in overall activity level**, and did in fact correspond with a **drop in the number of meals served per seat**.

	20X1	20X2	20X3	20X4
Meals served per seat	150	204	155	168

Weekly **opening hours** were **increased** in 20X3 but, as the figures above demonstrate, there was **no corresponding increase in meals served per seat**.

Innovation

The business appears to have been **particularly successful in this area**, with attempts at innovative ways of satisfying customer needs, including the introduction of **special theme evenings**, **increased items on offer** and the successful development of **catering for specialevents**.

A number of **new meals** have also been **introduced**, although the degree of experimentation has varied considerably from year to year.

2.2 Additional information for assessing performance Competitiveness

(1) Any similar data from one or more restaurants in the locality would enable the business to determine how well it was performing in relation to competitors.

(2) It would also be useful to have data about total meals served in all restaurants in the same price band in the locality in order to assess market share in terms of volume.

(3) More general information about national trends in eating out and restaurant prices, and market research (particularly customer surveys) on similar restaurants would provide a broader context to the performance assessment.

(4) Details of the cost of catering for special events would allow the profitability (or otherwise) of this area of business to be determined.

Financial performance

(1) Cost data on labour, food and overheads, which is missing at the moment, would enable a more in-depth profitability analysis.

(2) Details of assets would enable the calculation of ROCE.

Quality of service

(1) Especially useful would be any customer feedback received or systematically collected by the restaurant (in addition to the complaints and compliments already detailed).

(2) Any reviews of the restaurant that might have appeared in guides, newspapers and so on would provide an expert's analysis of the service offered.

(3) Data on intangible factors, such as the courtesy of staff and ambience of the restaurant, would enable a fuller assessment of the quality of service.

Flexibility

(1) Details of the ease with which the restaurant deals with requests for non-menu items (such as those connected with special dietary needs) would give additional information with which to assess this area.

(2) It would be useful to know whether any staff training to promote multi-skilling (which should improve the business's ability to cope with fluctuations in demand) has ever taken, or could take, place.

Resource utilisation

(1) A number of useful measures could be calculated if information about staffing levels was provided (eg, meals served per hour per member of the waiting staff or revenue per member of staff).

(2) If information about floor area was also provided, measures such as revenue per square metre could be calculated.

(3) It would be useful to know how seat numbers were increased; for example, increasing the restaurant seating space available, or adding more seats in the same space.

Answer to Interactive question 3

(1) Performance

BPC has made a contribution to society in terms of treating patients and developing new drugs which will allow patients to be cured. It is not clear from the report how true it is that the company sells the drugs for "reasonable prices" as no information is given about the prices charged or prices for similar products in the market. Only 33% of the board are female, which suggests that the company has not performed particularly well in terms of gender equality. An ideal would be 50%. Employee engagement of 75% sounds like a good score so employees do seem to enjoy working for BPC.

In terms of environment, the reduction in greenhouse gasses of 15% since 20W5 represents a simple average fall of 2.1% per year. This does not seem particularly good, given the context of the Paris Agreement to reduce climate change. The aim to reduce greenhouse gasses to zero in 40 year also appears slow. Climate change is a major global concern, and therefore BPC has a moral obligation to do their part in helping to reduce it. Failing to do more could harm BPC's reputation, leading to a boycott of its products. The company must do better in this regard. In terms of using renewable energy, the company is using over 50%, which is good.

From an economic perspective, the company is doing reasonably well – a return of 56% to shareholders over five years is a good steady return. A high portion of revenues is being invested back into R&D which does suggest that the company is thinking of the longer term, so the business does appear to be sustainable from an economic perspective.

Overall, therefore, based on the limited information provided, the society and economy aspects of sustainability are doing well, but the company must do more in terms of environmental sustainability.

(2) Additional information

In order to make a more valid assessment of BPC's performance, comparatives for the previous year would be useful for the number of patients treated in order to see if the number of patients

treated is growing. It would also be useful to have some information about the prices charged for the medicines to see if the claim of "reasonable prices" is borne out.

Some indicator of the size of the company would be useful – for example, the number of employees or total revenue – as this would allow the calculation of ratios such as patients per employee, or revenue per patient. This could then be compared with information from competitors to get a better idea of whether the society is good.

Many of the scores would benefit from having an industry comparator – an industry average, or a similar sized company to compare performance to. This would be useful for evaluating the diversity of the board, employee engagement, renewable energy use, long term investment and shareholder return.

For greenhouse gas emissions, the absolute emissions in metric tonnes of CO_2 equivalent would be useful and this could be used to calculate emissions per £ of revenue or per employee, which could then be compared to others in the industry to make a judgement about whether the absolute level of emissions is high.

(3) Evaluation of the report

The report highlights a small number of key areas, which is a strength. Highlighting key areas enables users to focus on the important areas, without getting lost in the detail. The report also gives the high-level performance indicators, with a link to the company's web site for more detail, which may enable users to obtain more detailed information.

The narrative before the performance indicators helps users to understand what the company is aiming to achieve. However, the narrative does contain many statements such as "reasonable prices" and "aiming to reduce the harmful impact that we have on the environment." Without further clarification about exactly what these statements mean, the impression is given that the report is trying to provide an overly good view of the performance.

The report does cover the three categories of sustainability, society, environment and economy, and so does give a broad picture of the overall impact of the company.

Answer to Interactive question 4

Zydrau contract – assurance or agreed-upon procedures

Agreed-upon procedures

In an agreed-upon procedures (AUP) engagement, MSB will provide a report of factual findings from the procedures and tests performed, which need to be agreed with both HH and Zydrau. The procedures and tests required should be sufficiently detailed so as to be clear and unambiguous, and discussed and agreed in advance with both HH and Zydrau staff, so that the factual findings are useful and appropriate to the cost-plus contract.

When performing an AUP engagement on historical financial information MSB, as practitioners, is required, as a minimum, to comply with ISRS 4400, Engagements to Perform Agreed-upon Procedures Regarding Financial Information.

Our report for an AUP engagement will not express a conclusion and, therefore, it is not an assurance engagement. It will not provide recommendations based on the findings.

We would request that HH and Zydrau review the procedures and findings in our report and use the information to draw their own conclusions.

The value of an AUP engagement comes from MSB, as practitioners, objectively carrying out procedures and tests with relevant expertise thus avoiding the need for HH to carry out the procedures and tests themselves and therefore protecting confidentiality for Zydrau.

AUP engagements are most effective in situations, such as this, where there is a clear matter to focus on in the form of the costs plus pricing contract.

The benefit to HH of having an AUP engagement is therefore that it provides evidence for HH that Zydrau is complying with the terms of the contract in identifying, measuring and allocating only costs appropriate to the pricing contract and consistent with that contract. This prevents excessive, and otherwise unobservable, costs being added by Zydrau thereby increasing the price of goods to HH in a manner that is inconsistent with the contract.

Zydrau may be more likely to allow MSB to carry out this task as a professional accountant than perhaps it would with HH, due to the commercial sensitivity of other information that may be obtained in the process. In this context, ISRS 4400 requires compliance with the applicable requirements of the Code of Ethics for Professional Accountants.

Assurance assignment

A key feature that distinguishes an assurance assignment from an AUP assignment is the requirement to express a conclusion.

Discussion with both parties when scoping an assurance engagement will be an important part of the process. This will help MSB to obtain a sound understanding of the objectives of the engagement, the nature of the subject matter (cost structure and costing processes of Zydrau) and the requirements of both HH and Zydrau.

This understanding will help to plan procedures to gather sufficient and appropriate evidence to support a conclusion that is useful in the light of the needs of the parties involved.

It should be possible to obtain the assurance required, provided that the scope of the assurance engagement is in line with the relevant standards; eg, the method of measuring or evaluating the subject matter is appropriate, criteria are suitable, and sufficient and appropriate evidence exists.

However, from HH's perspective, an assurance engagement may not represent the optimal approach from a cost-benefit perspective, as the amount of evidence to support a conclusion may be much greater than for an AUP assignment.

Answer to Interactive question 5

Suggested approach to a solution

An approach to developing a solution is suggested here. You may prefer to take a different approach, but you should be able to consider all the relevant information provided, identify the most important issues and draw conclusions.

Stage 1: Make notes of the relevant facts

Making notes is a method of reviewing the facts. In the table below, the notes are organised according to the checklists suggested in this chapter. In this example, however, issues in the broaderbusiness environment do not seem to be a significant issue

External environment Political Economic Social Technological Environmental Legal	- - - - - Increase in legal actions against drug companies

Industry environment	High R&D costs Patents to protect intellectual property: importance of patent protection for the business of major drugs companies Rigorous development and testing for new products Government and public challenges to high levels of profit National governments and health organisations sponsor most research: donation programmes
Competition	Strong competition between firms, but few firms High barriers to entry No substitute products for patented drugs Peffstill a serious competitor for Coffstop
Internal strengths and weaknesses	Main revenue-earning drug: patent ends next year. Loss of up to 10% of revenue? No other major product, apparently. Why is R&D not more effective in producing innovative products? More information needed about patents and product portfolio More spending on R&D than competitors Difficulty in finding retail outlets for Coffstop
Financial	Fall in revenue growth to 5% annually from 15%. Are there any forecasts for future sales? Profit before tax 35% of sales, profit after tax 15%. So tax 20% of sales? This is surprising. Is the data reliable? Fall in revenue but 15% increase in earnings and dividends? How was this achieved? R&D costs = 15% of revenue last year Detailed figures for profitability of Peffstill and Coffstop for retailers: calculations of profitability required
Operational	Data on performance restricted to financial data, see above

Deciding the method of analysis

The notes should give you some ideas about the approach to take to the analysis.

Here, we suggest that the main issue is the need for WG to continue to develop successful new products which can be patented. We know that a 'best seller' will go out of patent next year, so that other companies will be able to make and sell the product, probably more cheaply. Issues such as the performance of R&D and competition will be included in the analysis.

A further issue to consider is the financial performance of the company and prospects for the future.

Another issue, although perhaps one of lesser importance, may be the risk of action by national governments to reduce the large profits of drugs companies.

Calculations

Detailed calculations can be produced for the relative profitability of Coffstop and Peffstill. The focus here should be on profitability for retailers, and identifying the key measure of performance. It is not profitability per unit sold. It is the gross profit per week per square centimetre of shelf space.

	Coffstop	Peffstill	
	£	£	
Recommended retail price	1.50	10.00	
Bought-in cost	0.50	7.40	
Gross contribution per bottle	1.00	2.60	= the 1: 2.6 ratio in the data
Holding cost per bottle	0.40	0.80	
Net contribution per bottle	0.60	1.80	
Sales per week (bottles)	120	20	
Total net contribution per week	£72	£36	
Shelf space per bottle (square centimetres)	18	60	
Contribution per square centimetre of shelf space	£4.00	£0.60	

Interpretation

The 'WHAT-HOW-WHY-WHEN-SO WHAT' approach to analysis can be used.

WHAT?	(1) Concern about future profitability: need for successful new products (2) Possible doubts about future growth in revenue, earnings and dividends (3) Possible risk of government action to reduce profits
HOW?	(1) Patent of successful product running out Problem with selling Coffstop to retailers (2) Fall in rate of revenue growth, but stronger earnings and dividend growth last year (3) Government and public concern about high profit margins: governments are sponsors of R&D

CHAPTER 8

WHY?	(1) Analyse problems of product portfolio and failure of R&D to develop major new drug, in spite of high spending on R&D. Is this a key strategic problem for the company? Failure of company to explain higher profitability of Coffstop to retailers. Need to correct this failing, but why did it happen? (2) In spite of high profit/sales ratio, it is not clear how earnings could increase by 15% when the rate of sale growth slowed to 5%. Is it possible that the company cut R&D spending? Or possibly gains from favourable currency movements? Some discussion of the apparently high rate of tax also appropriate. (3) Governments may be concerned about high profitability of drugs companies. Legislation against patent unlikely. Governments may cut sponsorship of R&D or may ask for better terms in donation programmes. But at the moment, this is not the main problem for the company. Need to keep the matter under review.
WHEN?	Action to promote Coffstop is urgent, especially if it may become a major product for the company. An assessment of future financial prospects and the effectiveness of R&D are also urgently required.
SO WHAT?	The company needs a continual cycle of innovation, product development and successful patenting. Without this, its future financial stability and survival could come into question.

Limitations in the data

More information would be useful for analysis:

- A more detailed analysis of revenues and profitability in recent years, including an explanation of tax charges
- More information about the company's current product portfolio, sales and profitability of each product (historical and projected) and remaining patent lives
- A report from the head of R&D about development projects in hand and an analysis of historical performance – new products developed and product histories. (It is important to establish whether the R&D department is as effective as it should be.)

Conclusion

Your views on this example may differ, and you may prefer to approach an answer in a different way. However, this suggested solution tries to demonstrate the advantages of a structured approach to data analysis.

Answers to Self-test questions

1 Cumulus Limited

The major question is whether the current strategy of Cumulus will succeed, and whether the company will survive. If not, it should look for ways to either change its strategy or cancel the project entirely.

The company is targeting customers who will rent large quantities of space in its centre. The big growth in demand could be for co-location services in cloud computing.

The company hopes to attract customers by offering lower prices. London-based service providers can offer faster connectivity. This may be important for users with regular links to institutions in London's financial centre.

Reductions in the physical size of storage may raise questions about whether a large centre will ever be filled to capacity.

The slow uptake in demand for the services of the company suggests that sales revenue growth for Cumulus may be slow and insufficient for breakeven for quite a long time.

2 BTH plc Ratios

Profitability	**ratios**		**20X7**	**20X8**
ROCE				
1,600	2,400			
6,700	5,000		23.9%	48%
Gross profit margin				
2,600	4,400			
14,400	5,000		18.1%	25.9%
Operating profit margin				
1,600	2,400			
14,400	17,000		11.1%	14.1%
Asset turnover				
14,400	17,000			
6,700	5,000		2.1x	3.4x

CHAPTER 8

Liquidity ratios			20X7	20X8
Trade receivables				
	$\frac{2,000}{14,400} \times 365$	$\frac{1,600}{17,000} \times 365$	51 days	34 days
Liquidity ratios			20X7	20X8
Inventories				
	$\frac{1,300}{11,800} \times 365$	$\frac{2,000}{12,600} \times 365$	40 days	58 days
Trade payables				
	$\frac{1,080}{11,800} \times 365$	$\frac{2,700}{12,600} \times 365$	33 days	78 days
Cash operating cycle			58 days	14 days
Financial gearing			20X7	20X8
	$\frac{2,600}{6,700}$	$\frac{0}{5,000}$	38.8%	-

Revenue has increased by 18.1% (£17m vs £14.4m). This is substantial when compared to inflation at 3%, suggesting growth in volume.

Non-current assets have also increased significantly (from £2.5m to £4.0m) suggesting BTH plc has either expanded or invested new equipment (which has supported the revenue increase). The revenue increase has also occurred alongside an increase in gross profit margin (from 18.1% to 25.9%), which again suggests the growth is due to investment rather than a strategy of lowering prices to increase sales volume.

Operating profit margin has increased less significantly than gross profit margin though, as 'other expenses' have doubled between 20X7 and 20X8. Despite the increase in revenue, this seems a significant increase. There may have been 'one-off' cost increases associated with the business expansion, but it will be important for BTH plc to maintain its control over operating costs in the future to help increase margins.

In addition to the revenue growth, BTH plc has redeemed its loan stock (£2.6 million) during the year. As the loan stock was classified in non-current liabilities at 31 December 20X7, this seems unexpected. However, as a result, financial gearing has decreased from 38.8% to nil.

Repaying the loan stock during the year could potentially have put pressure on liquidity, but BTH plc still has a positive cash balance at 31 December 20X8.

This appears to have been helped by the company's working capital management policies though, which have seen receivable days reduced by a third (from 51 to 34 days) while payable days have more than doubled (from 33 to 78 days). It is possible that the increase in trade payable days could reflect revised payment terms and BTH's increasing bargaining power over suppliers as it has increased in size. However, if the increase simply reflects slow payment on BTH's behalf, this could be damaging to the company in the longer term, because it could reduce the number of suppliers prepared to supply to it, and could damage the company's credit rating.

The increase in inventory days could be a cause for concern if it continues, because it reduces the efficiency of BTH's working capital management. However, if BTH has expanded significantly during the year, this could lead to some distortion in the working capital ratios (because the sales and cost of sales figures for the year 20X7–20X8 won't accurately reflect the level of these figures going forward).

Overall, however, BTH appears to be performing well with increased revenues and profits, and it appears to be generating significant amounts of cash (eg, to redeem the loan stock, to increase non- current assets, while increasing its dividend payment (by 50%, from £520k to £780k) and still retaining a positive cash balance).

It will be important that the business doesn't focus on short-term profits and cash flow at the expense of a longer term, sustainable growth strategy. However, there is insufficient information available to assess whether or not it is doing that.

3 Flyway Airline

3.1 The following performance indicators could be used to analyse the three airlines:

	A	B	C	D
13		Flyway	Sudland Air	Eazee Air
14	Operating profit margin	630/5,430	54/7,350	127/2,170
15		11.6%	0.7%	5.9%
16	Operating profit margin RANK	1 [1]	3	2
17	Capacity utilisation (load factor)	79,619/100,654	82,554/105,974	40,973/46,934
18		79.1%	77.9%	87.3%
19	Load factor RANK	2 [2]	3	1
20	Revenue/staff member (£'000)	5,430 m / 32,501	7,350 m / 56,065	2,170 m / 5,372
21		167	131	404
22	Revenue/staff member RANK	2 [3]	3	1
23	Fuel cost/seat kilometre (£)	1,480 m / 100,654 m	1,823 m / 105,974 m	535 m / 46,934m
24		0.015	0.017	0.011
25	Fuel cost/km RANK	2 [4]	3	1

[1] RANK(B15,$B$15:$D$15,0). The formula can be copied in C16:D16. [2] RANK(B18,$B$18:$D$18,0). The formula can be copied in C19:D19. [3] RANK(B21,$B$21:$D$21,0). The formula can be copied in C22:D22. [4] RANK(B24,$B$24:$D$24,1). The formula can be copied in C25:D25.

Operating margin – Flyway has the highest operating margin of the three airlines (11.6%), which suggests it is being run efficiently overall. We might expect Flyway to achieve a relatively high margin because it appears to be pursuing a **differentiation strategy**. However, Sudland Air, which appears to be pursuing a similar strategy, generates an operating profit margin of less than 1%, despite being a larger company than Flyway.

Capacity utilisation (load factor) – By showing, on average, how full each airline's aircraft are, this indicator shows how well the airlines are using their asset base (ie, their aircraft). Flyway and Sudland's performance is similar in this respect, but Eazee's is significantly better. This is likely to be because Eazee (a low-cost airline) is pursuing a **cost leadership** strategy. Flyway might consider reducing its prices to try to improve capacity utilisation, but it needs to do so in the context of its overall strategy. If it reduces prices too much, it may end up compromising the quality and service it offers to passengers, but these elements are crucial to its strategy as a differentiator.

Revenue per staff member – This is an important measure in the context of the recent disputes over working conditions and pay. Flyway's staff appear to be performing better than Sudland's which, in turn, might strengthen their claims for a pay rise.

The comparison between Flyway's and Eazee Air's performance for this measure may be less meaningful. Eazee **outsources** many of its activities, meaning its staff numbers will be significantly lower than Flyway, which carries out the corresponding activities **in-house**.

Fuel costs – The board's interest in new fuel-efficient aircraft indicates that reducing fuel costs is an important concern for Flyway. Again, Eazee ranks first in terms of controlling its fuel costs with Flyway and Sudland ranking second and third respectively. This might be because it has more **fuel-efficient planes**, which would support the board's argument for Flyway investing in new aircraft. Alternatively, however, Eazee may have negotiated more favourable fuel contracts with its suppliers, or may be using lower grade fuel.

> **Tutorial Note**
>
> It is important to use fuel cost per **seat** kilometre as the performance indicator here rath-erthan fuel cost per **passenger** kilometre, because we are looking to monitor the fuel efficiency of the aircraft, rather than the airline's ability to fill its aircraft with passengers.

3.2 Flyway's business strategy, as a premium airline, coupled with the difficult trading conditions, mean that it is increasingly important for Flyway to provide its customers with the best services and experiences possible, so that they choose to fly with it in preference to another carrier. Increasing the data it holds about customers, and potential customers should help Flyway's management make better decisions, and thereby should help the company achieve this.

Detecting key trends – Analysing conversations on social media could help Flyway identify potential trends in customer demand; for example, if there are major events taking place in a particular destination, or if certain resorts are increasing (or decreasing) in popularity as holiday destinations. Being able to forecast demand more accurately – and almost in 'real time'– could help Flyway boost revenue, through applying **dynamic pricing**. For example, Flyway could keep prices high on flights which are going to be popular, but could reduce prices on flights which look like they are going to have a lower capacity utilisation in order to try to boost demand for those flights.

Customer selection process – One of the key issues here is for airlines to understand the reason why potential customers have not completed their transaction – for example, this could be due to price, seat availability, difficulties in the booking process itself. In this respect, if Flyway was able to capture data about the stage in the booking process which causes potential customers to abandon their booking, it could then look at ways to tackle the problem – for example, if there was a confusing user interface on Flyway's website this could be amended to make booking easier. Equally, applying the 'velocity' aspect of Big data, if a customer abandons a transaction, and Flyway already has their contact details, the customer could immediately be sent an incentive to try to encourage them to complete the purchase.

In-flight sales – Flyway currently offers a standard selection of in-flight products across all its flights. However, the amount of products it sells (and therefore the amount of in-flight revenue it generates) is likely to depend on how well the products offered meet customer needs. By analysing the purchasing patterns of different passengers (or different types of passengers) on different routes, Flyway could customise the range of products it offers on different flights, to focus on the products which are most likely to appeal to the passengers on a particular flight.

Customer satisfaction – In the same way that conversations on social media could help to identify trends in demand, they could also help to indicate how satisfied customers are (or aren't) with their flights and the service they receive from Flyway. However, although knowing whether customers are satisfied or not is useful, perhaps the greater value will come from identifying any factors which are reducing satisfaction levels (eg, comfort of the planes, quality of customer service received) so that Flyway can then address the causes of any problems and take steps to improve its performance in those areas.

4 Malvo Ltd

Tutorial Note

The solution below is only a suggested solution showing some of the points you could have made. You may have thought of others – and (in an exam situation) you would receive credit forvalid points you made, even if they are not included in the suggested solution.

Quality of information

In general terms, the dashboard data has two key benefits over the information previously available to Malvo's management:

- It is available in real time, so managers can identify issues as they arise, rather than having to wait until the end of the week for the weekly summary to be available.
- The granularity of the data means that managers can identify, and respond to, specific issues rather than general trends.

Overdue items

Being able to review data in real time could be particularly useful in relation to monitoring overdue items, and for identifying potential problems with them.

Although having visibility over the number of overdue items is important, potentially the useful information for managers could be the reasons for any delays – for example, whether there are problems in the warehouse which are delaying shipment, or whether there have been problems in getting products from suppliers. If managers can identify the reasons for items becoming overdue, this should improve their ability to take the actions necessary to keep shipping operations running as smoothly as possible.

In this respect, the ability to track the real-time status of all orders could be particularly useful. If Malvo filtered the orders to isolate all the delayed orders, it could then assess any common factors – for example, if there is a problem with a particular product, or with products from a particular supplier.

Late shipments

The dashboard identifies the number of late shipments, but it could be useful for the managers to drill down further – for example, to see which suppliers are affected, and what may have caused the problems (for example, bad weather delaying transport). If shipments from a specific supplier are repeatedly late, and therefore Malvo cannot rely on that supplier, it could be necessary to look for an alternative supplier.

Back orders

The percentage of items which are back ordered is an important measure of the effectiveness of the company's inventory management, and will also influence customer satisfaction levels. Although it is almost inevitable that there will be some products which customers have to wait for, if customers regularly have to wait – or have to wait for extended periods of time – it is likely that they will look to purchase from one of Malvo's competitors instead. In this respect, as well as monitoring the back order rate it could also be useful to track the number of days which customers have to wait for back orders.

Perfect order rate

The 'perfect order' rate will also influence customer satisfaction levels, so Malvo should aim to keep this figure as high as possible. The current month's figure (94.2%) means that about 1 in 20 orders (5%) are not completed perfectly (ie, on time, and in full).

Once again, though, while having visibility over the figure is useful, potentially the more valuable insights to managers would come from identifying any factors which cause orders to be imperfect – for example, if there are particular products which are repeatedly out of stock.

Out of stock items

The significance of 'out of stock' items is that they potentially result in lost sales. If a customer tries to purchase an item, but that item is out of stock, the customer might look to purchase it from one of

Malvo's competitors instead. (Malvo's target is to keep out of stock items below 1%, but there was a noticeable peak in October at around 1.4%, suggesting Malvo may have suffered supply chain problems then.)

This highlights a more general aim for Malvo's managers here, to use management information (and analytics) to try to balance supply and demand as effectively as possible; because this should help to minimise the risk of stock-outs, and also avoid having excess stocks which it is difficult to sell.

Having detailed information about stock levels and order levels for individual items could be very useful here in tracking imbalances between supply and demand – although having this information only becomes useful if it leads to actions to remove any imbalances.

Top 3 stock items

Although Malvo has a high level of fridges in stock, this appears consistent with the level of orders. However, the amount of televisions and radios in stock appears high for the level of orders.

This might suggest that Malvo needs to reduce the price of these items or introduce some kind of special offer (to increase demand), or that it should reduce the amount of these items it buys in future. However, there may be specific circumstances which have led to the current imbalance (for example, if Malvo has recently made bulk orders of the items to get a trade discount from their supplier).

Top 3 orders

Fridges (stock code 212016) are the second most popular product by customer orders, as well as being the product which Malvo has the third highest stock of. As noted above, this suggests that Malvo has correctly anticipated the level of demand for fridges, and planned its stock levels accordingly*.

However, there appears to be a danger of stock-outs for fans and tablet computers because the quantity of orders is greater than the amount in stock. An important consideration here is whether there have been problems in Malvo's supply chain which have meant products have been delayed, and Malvo has now less stock than it planned to have; or whether the imbalance is due to unexpectedly high demand. For example, demand for fans might have been increased by a period of hot weather.

*: An alternative explanation could be that, in response to high levels of stock, Malvo has reduced the price of its fridges to boost demand.

Chapter 9
Information strategy

Introduction

Learning outcomes Knowledge brought forward

Examination context and syllabus links

Chapter study guidance

Learning topics

1 Information technology and strategy

2 Information for strategic planning and control

3 Management information systems (MISs)

4 The value of information

5 Evaluating management information and performance data

6 Cybersecurity

7 Using information to develop competitive advantage

Summary

Further question practice Self-test questions

Answers to Interactive questions

Answers to Self-test questions

Introduction

Learning outcomes

- Outline proposals and advise on outline requirements for information technology applications to support business strategy, for example in the context of e-commerce, e-business, virtual arrangements, artificial intelligence, digital assets and cloud computing, including assurance issues in relation to data security
- Use management accounting information (for example, costs, prices, budgets, transfer prices) and management accounting tools (for example, break-even, variances, limiting factors, expected values, ABC, balanced scorecard) to evaluate short- and long-term aspects of strategy
- Explain and appraise how management information systems can provide relevant quantitative and qualitative data to analyse markets, industry and performance, including the capture and analysis of big data
- Demonstrate and explain methods for determining the value of information in the context of developing an information strategy
- Assess financial and operational data, and information from management information systems, drawing inferences relating to its completeness, accuracy and credibility, and provide an evaluation of assurance procedures in evaluating information risks, including those relating to cybersecurity
- Demonstrate and explain how businesses capture, analyse and utilise information to develop competitive advantage
- Evaluate the impact of cloud computing and the borderless business on the provision of strategic management information, including the use of cryptocurrencies
- Explain and appraise corporate strategies for ensuring security of data and prevention of attacks against data in the context of cybersecurity
- Explain the impact of regulations relating to data security (eg, GDPR) including the issues incurred in complying with such regulation

Knowledge brought forward

The Business Strategy & Technology syllabus at Professional Level looked at the way management information and information systems support an organisation's overall business strategy and competitive advantage. It also highlighted that organisations need information for a range of purposes, including planning, control, performance measurement and decision making.

In the chapter Strategic performance management of this Workbook, we highlighted the importance of having relevant and reliable performance information in order to manage performance. In this chapter, we will now consider the information systems which could provide that information, and how the resulting information can be used by staff and managers in organisations.

Examination context and syllabus links

It is unlikely that a question will focus solely on information systems in their own right, although information systems and e-business may play a key role in the successful implementation of a strategy.

However, while information **systems** themselves are important to an organisation, the **information** which they provide is perhaps even more important. Managers need information for decision making and control. For example, in order to measure performance against targets or key performance indicators (KPIs) (see the chapter Strategic performance management) managers need to have appropriate information about the areas of performance under review.

In this context, you might be expected to comment on the information available for decision making or control in a scenario – is there enough information available? Is the information at the correct level (eg, strategic, tactical or operational)? What other information is needed? Where might the business

obtain relevant information? Is the information system adequate to fulfil the functions required of it by the business? How can the organisation use information to generate competitive advantage?

An underlying consideration for information strategy is that an organisation's information systems should provide the appropriate type and amount of information which management need to select, implement and control its chosen business strategy. This also means that the information strategy needs to be aligned to the business strategy, in terms of the type of information available. (For example, if an organisation is pursuing a differentiation strategy based on the high quality of its product then information about aspects of product quality will be very important to it.)

In addition, the level of detail, the form of the information and its timing should be appropriate to the role of the person(s) who receives it.

Make sure you do not overlook the importance of IT/IS to strategy. Very often an organisation's ability to deliver a strategy may depend on having sufficient IT capabilities to do so. Equally, an organisation's IT capabilities may be instrumental in shaping its strategy. For example, does it have sufficient IT infrastructure and capabilities to support a digital strategy (as discussed in the chapter Strategic choice)?

Remember, in the chapter Strategic analysis we noted how an organisation's resources and capabilities contribute to its competitive advantage. In this context, it is worth noting that the way an organisation manages and uses information could, in itself, become a source of competitive advantage – for example, if the organisation is able to respond to market trends or opportunities more quickly than its rivals on the basis of the information it gathered about those opportunities. (The way an organisation makes use of big data, the internet of things, and machine learning could all contribute to its capability in this respect as well.) Equally, gathering data and information about customers and customer requirements could also be useful in increasing the value an organisation's customers place on its products and services, as we noted in the context of customer relationship management (CRM) (covered in the chapter Strategic marketing and brand management of this Workbook).

Conversely, problems relating to an organisation's IT systems could have a significant impact on its performance, and potentially also on its reputation. This could be particularly true in relation to cybersecurity. We have looked at cybersecurity in the context of the supply chain in the chapter Strategic implementation, but we will look at cybersecurity, and the ways organisations can ensure the security of their data, again more generally in this chapter.

pter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Information technology and strategy** Strategic information is used to plan the objectives of an organisation and to assess whether they are being met. It is therefore important that an organisation has the necessary information systems in place to support its information requirements.	**Approach** This section looks at IS and IT from a strategic perspective; for example, how could they shape corporate strategy or deliver competitive advantage. It is very important to understand how the emergence of digital technologies (digital transformation) - such as the growth of cloud computing-is re-shaping business models. **Stop and think** What impact has the Covid-19 pandemic had on business reliance on cloud computing?	Remember that SBM & L is a business management exam, not primarily an IT exam. You do not need to know the details of a range of different information systems; but rather you need to appreciate how systems and information could be used to measure and manage performance in an entity and how they could support	**IQ1: Antiques dealer** This question requires application of the value chain to an antiques retailer to assess the strengths and weaknesses of the current business model. You are then asked to evaluate the impact on the value chain of introducing e- commerce. The question demonstrates the breadth of knowledge that could be tested in one question.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
2	**Information for strategic planning and control** Managers need information to make effective decisions and to control and coordinate the activities of an organisation. Much of the data required will be internally generated financial information, for example costs, prices and variances. However externally generated information, such as customer demand levels, can influence management decisions, for example decisions concerning pricing and inventory requirements.	**Approach** This section looks at the importance of information for planning and control. Much of the section (costs, prices, variances etc) should be revision, in which case you can skim through it relatively quickly. **Stop and think** Why are budgets useful for an organisation? What are the potential problems associated with budgeting?	In the exam you should use calculations, such as those seen in the interactive questions, to support your discussion. Questions may expect you to use a variety of management accounting tools to evaluate aspects of an organisation's strategy or its performance.	**IQ2: Absorption and marginal costing** Use this question to re-cap how to calculate profit using absorption and marginal costing. This topic is revision from the Management Information (MI) paper. **IQ3: Activity based costing** This question is also revision from the MI paper. Determine the most appropriate cost drivers and calculate total product cost for four different products. **IQ4: Breakeven analysis** Breakeven analysis is a useful calculation for the exam since it allows you to quickly establish whether a company should pursue a new product/ service strategy. Practise the technique using this question. **IQ5: Multi-product breakeven analysis** Work through this question making sure that you know how to calculate the breakeven point and breakeven revenue for multiple products.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Management information systems (MISs)** As discussed in previous sections, information is critical for an entity's decision making and control and can even be a source of competitive advantage. To capture information at the strategic, tactical and operational levels of the organisation various Management Information Systems are required.	**Approach** This section examines the different types of management information systems an entity could use. However, remember your focus should be on the information which the systems can provide for management, rather than on the technical details of the systems themselves. **Stop and think** Consider a company with which you are familiar. What do you think their CSFs are? What are their information requirements as a result of these CSFs?	The content of this section is unlikely to be tested in isolation; you may need to form a judgement on the quality of data and information produced by an organisation's management information systems, as well as the possible risks associated with using it.	**IQ6: Health Club** This question encourages you to consider the main purpose of a new MIS and the benefits it could bring to the company.
4	**The value of information** Information is recognised as a valuable resource in a company's quest to achieve competitive advantage. However, good information is not free so organisations must understand the trade-off between the cost of information and the value it delivers.	**Approach** This is a short and relatively self- contained section. You can read through it relatively quickly, make sure you understand the value and the cost of information. **Stop and think** How might good information result in competitive advantage?	In the exam you may need to assess the value which an organisation could gain from having better information and information systems, it is important to adopt a practical and commercial approach. Remember that information comes at a cost to the business so this should be factored into any discussion about a company's information needs.	

Topic	Practical significance	Study approach	Exam approach	Interactive questions
5	**Evaluating management information and performance data** The objective of management accounting and management accounting systems is to provide information for managers to use for planning, control and performance measurement. However, information is only useful to managers if it adds to their understanding of a situation.	**Approach** The SBM&L syllabus refers specifically to issues surrounding the completeness, accuracy and credibility of data and information, so this topic is important. Assurance over information and information systems is another important area, and one which is becoming increasingly important in the context of cybersecurity (discussed in a later section). **Stop and think** What are the impacts on a business of using poor quality information to make decisions?	An exam question may require you to assess the quality of an entity's information or to suggest improvements or alternative data sources. You may also be asked to outline assurance procedures around the reliability and adequacy of an entity's IT systems.	
6	**Cybersecurity** A key challenge of new technologies is the increased cybersecurity risk they pose. As businesses continue to adopt digital technologies, the protection of systems, networks and data in cyberspace is becoming increasingly important.	**Approach** We have already discussed cybersecurity in the context of supply chains in the chapter Strategic Implementation, but in this chapter we look in more detail at the measures organisations can take to protect themselves against cyber-risks. When thinking about cybersecurity, a	As cybersecurity issues become more prevalent in the real-world this is likely to be reflected in the SBM&L exam. You may be required to assess the threats to an organisation's information system (including cyberthreats) and the organisation's subsequent response to them. You may also be asked to explain the	**IQ7: Cybersecurity** In this question you are required to explain the issues that the board should consider in relation to cybersecurity and to make recommendations regarding any actions it should take. Your response should be practical and applicable to the business in the scenario.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
	The importance of data security is increased further by legislation such as the General Data Protection Regulation (GDPR), relating to the use and processing of personal data.	useful approach might be to consider three broad aspects: What are the causes of cyber-risks? What are the consequences of cyber-attack? What can organisations do to protect against the risks (and how effectively are they doing this)? By keeping up to date with business news you will see real examples of cybersecurity breaches and responses. **Stop and think** There have been several well- publicised cybersecurity breaches. What caused them? What actions did the companies take?	impact of regulations relating to data security, and the implications for businesses in complying with them.	
7	**Using information to develop competitive advantage** The information an entity holds (particularly about customer requirements and its supply chain) could play an important role in helping that entity develop competitive advantage over its rivals. Information technology has had a strategic impact on organisations' business strategies - in particular through the development of e-business and e-commerce	**Approach** This is another important section because of the way information links to other elements of the syllabus we have already covered; for example, CRM, supply chain management, and big data. **Stop and think** To improve strategic decision making, organisations should increase the amount and quality of data available to them. However, what problems could this also cause for an entity?	In the exam you may be required to advise both profit seeking and not-for- profit entities how to strengthen their position relative to competitors. You may therefore be asked to explain how capturing, analysing and using information can help an organisation to develop competitive advantage.	**IQ8: Data and knowledge** This is a scenario-based question dealing with a range of topics. You are required to explain the advantages of integrating CSFs into performance management systems using KPIs, advise on the benefits of a knowledge management strategy and explain how data mining can be used. Your responses must be applied to the scenario rather than simply listing technical knowledge points.

Once you have worked through this guidance you are ready to attempt the further question practice included at the end of this chapter.

1 Information technology and strategy

Section overview

- Strategic information is used to plan the objectives of an organisation, and to assess whether those objectives are subsequently met. Therefore it is important that an organisation has an information systems strategy so that it can meet its information requirements.
- Organisations often have to consider three different strategies in relation to information: information systems (IS) strategy, information technology (IT) strategy and information management (IM) strategy.
- Not only have developments in IT facilitated the introduction of a range of management information systems, but they have also had a significant impact on corporate strategy itself (for example, by transforming the value chain).

1.1 Information and strategy

Strategic information is used to plan the objectives of the organisation, and to assess whether the objectives are being met in practice. Therefore it is important that organisations have an information systems strategy so that it can meet its information requirements.

As we have mentioned in the chapter Strategic performance management, organisations have to consider three different aspects of their information strategies: information systems (IS) strategy, information technology (IT) strategy and information management (IM) strategy.

We can summarise these three strategies in very simple terms by saying that IS strategy defines **what** is to be achieved; IT strategy determines **how** hardware, software and telecommunications can achieve it; and the IM strategy describes **who** controls and uses the technology provided.

However, the relationship between IS, IT and IM is important. In order for a company's IS strategy to be successful, the company will need sufficient IT resources (including hardware, software, network resources and suitably skilled staff) in order to implement and support the strategy.

A company does not necessarily have to own resources in-house, though; an alternative would be to outsource IT services and departments to a specialist IT company. However, before making such a decision, an organisation needs to consider how critical its IT services are to its overall operations. If IT services are critical to the organisation's operations, and to its competitive advantage, the organisation should try to keep its IT services in-house rather than outsourcing them.

1.2 IS, IT and strategy

An organisation's information systems may not only **support** business strategy; they may also help **determine** corporate/business strategy. In particular:

(a) IS/IT/IM may provide a possible source of **competitive advantage**. This could involve new technology not yet available to others or simply using existing technology in a different way.

(b) Information systems may help in formulating business strategy by **providing information** from internal and external sources.

(c) Developments in IT may provide **new channels** for distributing and collecting information and/or for conducting transactions. The most fundamental illustration of this has been the way the internet has opened up opportunities for e-business and e-commerce.

When considering IS/IT in a strategic context it could be useful to consider how they contribute to an organisation's current strategic position. One way of doing this could be through a SWOT analysis.

For example:

Strength: A business might have a sophisticated customer database which allows it to send out targeted marketing messages to customers. A retailer might have an inventory management system which automatically reorders stock lines according to sales being recorded in the shop tills, thereby allowing it to minimise the levels of inventory it needs to hold.

Weakness: A business's ordering system (either online or manual) is unreliable, and so customers cannot be confident that the goods they order will be delivered correctly or within an acceptable timescale.

Opportunity: If a business does not currently have a website which allows customers to purchase items online, the opportunity to develop such a website could provide a significant boost to its sales.

Threat: Conversely, if a competitor has recently upgraded their IT systems with the result that they can now offer a greater range of services to their customers and provide them with improved levels of service, this could pose a threat to an organisation because customers may switch to using the competitor instead.

Context example: British Airways

Although the main focus of this chapter is on the way that IT and information could enhance competitive advantage, it is also important to remember that, in today's businesses, IT systems are crucial to maintaining everyday operations. If the systems fail, then businesses may not be able to operate at all.

This was demonstrated in May 2017 when British Airways (BA) had to cancel all flights from London Heathrow and Gatwick on the Saturday of a busy, bank holiday weekend, due to a major IT systems failure. In total, about 800 flights – to worldwide locations – were cancelled, stranding approximately 75,000 passengers. The problems are expected to cost the airline about £58 million.

The root cause of the problem was a power supply issue at a data centre near Heathrow, but as BA's Chief Executive admitted, the crash affected 'all of our check-in and operational systems'. In addition, it appears that BA's back-up and disaster recovery systems also failed to step in during the incident.

Commentators noted that the problem highlighted just how interconnected the airline's systems are, and as a result, how susceptible airlines' operations can be to any one element failing (for example, airlines rely on IT systems for operating flights, ticketing, boarding, and for their websites and smartphone apps).

Unions claimed that the problem was a result of staff cuts and BA's decision to outsource its IT requirements to India in an attempt to save money. However, BA's chief executive denied those claims. He also said there was no evidence that the system failure was the result of a cyberattack, and he emphasised that passenger data had not been compromised.

BA promised to compensate all customers affected by what it called the 'catastrophic' failure.
Sources:

Batchelor, T. (2017) 'BA flights grounded: Apologetic CEO Alex Cruz denies catastrophic computer failure was caused by job cuts', *The Independent*, 29 May 2017, www.independent.co.uk

Cox, J. (2017) 'British Airways' IT meltdown over May bank holiday cost the airline around £58m', *The Independent*, 28 July 2017, www.independent.co.uk

1.2.1 Developing an IT strategy

When formulating an overall IT strategy, the following aspects should be taken into consideration:

(a) What are the key business areas which could benefit most from an investment in information technology, what form should the investment take, and how could such strategically important units be encouraged to use such technology effectively?

(b) How much would the system cost in terms of software; hardware; management commitment and time; education and training; conversion; documentation; operational manning; and maintenance? The importance of lifetime application costs must be stressed – the costs and benefits after implementation may be more significant than the more obvious initial costs of installing an IT function.

(c) What criteria for performance should be set for IT systems? Two areas can be considered: the technical standard the information system achieves and the degree to which it meets the perceived and often changing needs of the user.

(d) What are the implications for the existing workforce – has it the requisite skills to use the new systems, can it be trained to use the systems, and will there be any redundancies?

1.2.2 IT and its effect on management information

The use of IT has permitted the design of a range of information systems. Executive information systems (EISs), management information systems (MISs), decision support systems (DSSs),

knowledge work systems and office automation systems can be used to improve the quality of management information.

IT has also had an effect on **production processes**. For example, computer integrated manufacturing changed the methods and cost profiles of many manufacturing processes. The techniques used to **measure and record costs** have also adapted to the use of IT.

1.3 How IT is changing corporate strategy

It should be obvious that IS and IT should **support** corporate strategy, but there are also a number of ways IS/IT can **influence** corporate strategy.

In 1985, the *Harvard Business Review* published an article by Michael Porter and Victor Millar aimed at general managers facing the changes resulting from the rapid and extensive development of IT. Although it was written a number of years ago, the article is still relevant to the **strategic employment of IS** and the use of IT. It dealt with three main interlinked topics:

- the ways in which IT had become **strategically significant**
- how the **nature of competition** had changed
- **how to compete** in the new, IT-influenced environment

1.3.1 The strategic significance of IT

IT transforms the value chain.

Porter and Millar's article remarks that each of the value chain activities has both **physical** and **informational** aspects. While historically technical advances concentrated on physical aspects, more recently improvements in information management and data management have become increasingly significant (as for example the references to big data, internet of things, AI and machine learning in the chapters Strategic analysis and Strategic choice of this text identify).

Simple improvements are made by faster and more accurate processing of existing forms of data,and more dramatic ones by creating new flows of previously unavailable information. This has a particular effect on the linkages between the various activities and extends the company's **competitive scope**, which is the range of activities it can efficiently undertake.

Slack *et al* in their text, *Operations Management*, also highlight that e-business more generally has had an impact in many areas of operations management:

- **Design** – customer feedback on requirements, testing and information exchange on new products/services, data mining to understand consumer behaviour better
- **Purchasing** – ordering (through electronic data interchange (EDI)), funds transfer, supplier selection and supplier portals
- **Production** – production planning and control, scheduling, inventory management, quality monitoring and control, enterprise resource planning (ERP)
- **Marketing/sales and customer servicing** – new sales and distribution channels, online help desks, reduced cycle time, third-party logistics, scheduling systems

However, as well as thinking specifically how IT can affect the value chain, you should be prepared to consider how IT and e-business have affected business more generally.

For example:

The use of computer-aided design can lead to the faster production of new products and designs. Organisations could either use this speed as a basis for making designs cheaper (cost leadership) or, for example, in the clothing and fashion industry, as a means of getting the latest fashions to market more quickly than their rivals (differentiation).

Websites and email have changed the nature of communication between organisations and customers.

The internet has also changed the nature of the supply chain and channel structure – for example, by allowing customers to book flights and hotel rooms for their holidays directly from the airline company and the hotel online, rather than having to use travel agents; by allowing customers to buy a vast range of products through a single retail platform (eg, Amazon) rather than having to buy different products from different retailers according to the type of product.

Interactive question 1: Antiques dealer

GLS is a long-established retailer which specialises in the sale of antiques. GLS is owned by a married couple who both work in the business. They have no employees. Their premises consist of a large modern shop and there is an apartment above this in which the owners live. Over the last five years the local area has become very fashionable and the shop is now surrounded by smart restaurants, cafes and upmarket fashion outlets. This area has also become a very popular place to live which has meant that property values have increased substantially. The owners believe that if they disposed of their premises they would make a substantial capital gain. The owners have noticed that the fixed costs of their property, including insurance, local tax, security and maintenance, have risen very sharply during the last five years.

Since establishing the business 30 years ago the owners have developed their expertise. They now have a national reputation in the antiques trade and many repeat customers. They traded profitably each year from the start of the business until two years ago, but in the last year have made an operating loss for the first time. The owners are often consulted by other antiques traders and collectors by letter and telephone and they have developed a considerable income stream by charging for their advice. However, they have found that their business location is becoming increasingly problematic. Although the popularity of their area of town has increased and led to many more people living and visiting the area, unfortunately for the owners most of these people are not interested in antiques. They are young people who like the area but do not have the disposable income to spend on antiques.

A further problem is that the shop is not situated in a large city and it is very inconvenient for many antiques traders and collectors to visit. The owners believe the location has recently restricted the success of their business. The owners know that a very popular development in the antiques trade has been the establishment of 'Antiques Fairs' where antiques are bought and sold. Some of these have established international reputations and have many thousands of visitors. However, because of GLS's location and the need to keep their shop open, the owners do not attend these. The owners recently set up a website which has basic information about their business on it, such as their address, telephone number and the opening times of their shop. The website has received a large number of hits but it does not seem to have increased sales.

Requirements

0.1 Analyse the strengths and weaknesses of GLS's current business using the value chain model.

Note: You are not required to draw a value chain diagram in any part of your answer to this question.

1.2 Evaluate how the introduction of e-commerce could affect GLS's value chain. See **Answer** at the end of this chapter.

1.3.2 IT and competitive strategy

IT enhances competitive advantage in two principal ways:

- by reducing costs
- by making it easier to **differentiate products**

One example of IT-driven cost reduction is the way service industries (eg, shops, airlines) have introduced self-service tills or check-in facilities in place of 'staffed' facilities.

However, although IT can be used to reduce costs, it is perhaps debatable whether this generates a long-term competitive advantage. For example, businesses increasingly use virtual conferencing as a means of cutting costs and imposing operational efficiency due to the ease with which data can be shared. However, if all the firms in an industry start using virtual conferencing, will this actually generate any competitive advantage for any individual firms in that industry? Similarly, with the example of self-service check-in facilities, most, if not all, airlines now offer this facility and so it is no longer a source of competitive advantage.

Differentiation. One way an organisation might seek to differentiate itself from its competitors is by meeting customers' needs and requirements more closely than their competitors. The greeting card company Moonpig has adopted such an approach by allowing customers to design their own cards online.

IT could also enhance competitive advantage by forming the basis of completely **new businesses**. It makes new businesses technically feasible, it creates derived demand for new products and it creates new businesses inside old ones. The impact of Apple's iPod illustrates all three of these effects. The device itself is based on the MP3 file format, a large iPod ecosystem of accessories has been created, and the product represented a departure from Apple's previous hardware and software strategies.

We looked at the impact digital technologies can have on strategies and business models in the chapter Strategic choice, but will revisit some of the key issues around digital transformation here.

1.4 Digital transformation

The potential impact of IT on businesses and industries has become more topical in recent years, in relation to the concepts of digital disruption and digital transformation, which we introduced in chapter Strategic choice earlier.

Digital disruption relates to the impact that new digital technologies (such as broadband and wireless communications, social media, cloud computing) have on 'business as usual', and **digital transformation** refers to the way those impacts can be proactively managed.

In general terms, business transformation is about developing new business models and could include, amongst other things, new products or services, new production processes, new delivery channels, approaching new markets, working collaboratively with suppliers.

By contrast, the primary focus of digital transformation is understanding the existing information and data flows in a business, and then reshaping the business processes and systems to maximise the use of digital technologies.

1.4.1 Technological factors enabling change

The ICAEW publication *Digital transformation – the next steps: A business guide to digital change management* highlights that digital transformation has only been possible due to the emergence of a number of underlying, enabling technologies. These include:

- ever-increasing processing power
- ever-increasing data storage
- improved operating systems and networking infrastructure
- the internet as a platform
- the increasing reach and bandwidth of broadband
- the emergence of open source software
- miniaturisation and the rise of mobile

Coupled with the falling costs of technology, these developments have helped to generate an environment in which it is increasingly easy for entrepreneurs to explore new applications of technology and to challenge existing business applications and business models.

1.4.2 Benefits of digital transformation

A successful digital transformation can help a business not only to improve its existing business model (eg, through process improvements, reducing costs and achieving closer relationships with customers) but also to create new opportunities (new markets, new revenue streams, new supplier relationships).

Amazon and eBay are two high profile examples of how a traditional business model can be transformed by a new company using disruptive technologies. Both companies have harnessed technological innovation – faster processing, better networking, increased bandwidth, cheaper technology and diverse devices – to enhance their customer offering, improve their back office systems (eg, CRM, logistics, accounting) in order to expand into market leading companies.

However, a word of caution is required. Digital transformation will not mean that all technology start- ups will be successful. Ultimately – as with any markets or business models – many will still fail, while others will manage to keep going but doing so will be a struggle.

Importantly though, digital transformation is not solely about cost reduction. The greater areas of benefit arise from the way 'digital' can add value – through increased customer engagement and retention, personalisation of products and services, integration of systems and collaboration with suppliers to speed up fulfilment, and improved quality control processes.

Context example: Uber

The ICAEW publication *Digital transformation – the next steps* includes a number of the ways digitalisation has led to new business models, across a range of industries. One of the examples featured is that of the taxi service, Uber.

Uber's growth and success provides an example of how traditional business models (ie, taxi services) can be challenged by innovative new approaches.

Uber began in 2009 as a luxury car service in San Francisco, but by the end of 2018 it operated in more than 700 cities worldwide, and reportedly had more than 90 million users a month. At the time of its stock market listing in May 2019, it was valued at $82.4 billion, making it one of the largest initial public offerings (IPOs) of all time.

In order to compete successfully against existing taxi services, Uber analysed the customer experience and used digital technologies to overcome the negative aspects of hiring a taxi.

Problems in the existing business model:

- Getting a taxi is not always an easy experience, as it involves trying to find and hail a taxi, or having to wait after phoning to book one.
- Once in the taxi, the customer experience can be poor – disagreements over the route, whether the meter was started, agreeing a price, getting a receipt etc.

Uber's solution:

- Uber changed the private transportation market by creating a digitally enabled personal transport service.
- Marketing through local networks and social media.
- Use of mobile technologies and Google to improve customer convenience and to enable a better customer experience.

Digital transformation:

- The Uber smartphone app is integrated with Google Maps so that customers can identify how close they are to the nearest cars, set a meeting point on the screen, and hail a car.
- Driver's information (including customer satisfaction ratings) is provided in real time.

- Uber drivers call or text customers to confirm they are on the way to collect them. The app charges the customer's bank card on arrival at the destination, so cash, change, tips or receipts are not needed.

Source: ICAEW (2016) *Digital transformation – the next steps: A business guide to digital change management*

However, despite the potential benefits of digital transformation, it is important to remember that not all companies get it right, and some fail to recognise the need for digital transformation at all.

Remember the example we mentioned, in the chapter Strategic choice, of Blockbuster which failed to recognise the importance of digital transformation, and subsequently failed as a company.

Given the increasing importance of digital technologies, an important consideration for organisations will be to evaluate their current position, in order to determine the priority areas for them to change.

Some of the key areas to consider are:

Knowledge management	How well is knowledge managed in the business? Is there an intranet? Can information (eg, information about business performance) be shared easily?
Efficiency and productivity	Does the business use ERP or manufacturing resource planning systems? Does the business use cloud technology to be more efficient, flexible and mobile?
Payment and finance	Can the business accept telephone, mobile and online payments? Does the business use online banking? Do managers have access to accounts and finance at anytime, anywhere? Is the business' e-commerce system integrated with back office functions (eg, finance; inventory; delivery)?

Customers and marketing	Does the company's website engage customers and add value? Does the website work on tablets and mobile devices? Does the business deliver products/services online? Does the business have a search engine optimised website? Do you regularly evaluate competitors' products, websites and social media? Do you have a CRM system? Do you regularly send out e-communications to customers? Does the business offer personalised products or services? How responsive do customers think the business is? Does the business use social media? Does it have a good online interaction with its customers? Does the business check all online channels for customer feedback and any issues which could affect brand reputation? Does the business use information gathered from the website and social media to identify potential new ways of working or potential new products/services?
IT systems	How does the business manage its computer network? Has it implemented cloud technologies for its infrastructure? Does the business use technology to collaborate with other businesses (eg, sharing information with business partners)?
Governance	Does the business have an IT policy (covering use of hardware and software, data protection, and internet usage)? Does the business have a disaster recovery plan? (Is the plan regularly updated?) Are the business' systems secure (ie, protected from viruses/malware; hackers)? Does the business have measures in place to enable staff to use their own devices securely when accessing organisational data?

Summarised from: ICAEW (2016) *Digital transformation – the next steps: A business guide to digital change management*

1.5 IT networks

'Information technology' includes any devices which collect, manipulate, store or distribute information.

Networking IT

In an IT context, networking means linking two or more devices together in some way so that data can be shared among them.

Networks allow decentralised computers and devices to communicate with each other. This enables databases and applications software to be shared, and provides flexibility (for example, by allowing users to access information from different places).

For example, home workers can connect up to an organisation's systems using **virtual private network** links which treat the home workers as if they were on site.

However, there are also constraints and risks around IT networks. The costs of installing wired networks can be very high, while there may be security issues with wireless networks.

The increased importance of hardware, software and networks in supporting companies' strategies also highlights the importance of having proper controls over them – for example, to safeguard the integrity of corporate networks and databases.

1.5.1 Technology and data

When considering the IT architecture in a company, it is important to distinguish between the following components:

Technology platform – the internet, intranets, extranets and other computer systems and software which provide a platform which supports the strategic use of IT for e-business and e-commerce

Data resources – databases which store data and information for business processes and decision support

When considering whether a company's IT applications can support its business strategy, it is important to consider not only the technology platform but also its data resources.

Nonetheless, developments in IT have had a significant impact on the operations, costs, work environments and competitive positions of many companies.

Enterprise software could be particularly useful to organisations in a business management context in relation to **enterprise resource planning**, **supply chain management** and **CRM. Business intelligence** software (eg, data mining, data analytics) could also be particularly useful for providing management with information.

Evaluating enterprise software

The increased importance of IT and software to business operations means that selecting the right systems and software is becoming increasingly important for organisations.

Aspects which an organisation should consider when selecting IT systems/software include:

- **Reliability** – assurance about the integrity and consistency of the application and all its transactions
- **Interoperability** – the system's ability to interface and share data with other systems (including external systems)
- **Leveragability** – the ability to access stored data and other system resources at all times and from everywhere within the enterprise
- **Scalability** – the ability to continue to provide the required quality of service as the load or usage increases
- **Security** – the ability to allow certain users access to application functions and data while denying access to other users
- **Maintainability and manageability** – the ability to correct flaws in the system and to ensure the continued health of the system without adversely affecting other components of the system

- **Portability** – the ability of the software to run on a variety of hardware and operating systems

1.5.2 Digital assets

We discussed digital assets in the chapter Strategic analysis. In the chapter Strategic choice, we looked at an organisation's digital strategy which involves them using digital technology and digital assets to challenge existing ways of doing things, and we noted that an organisation's digital assets can often be strategically important to it.

In this respect, the data organisations hold can often constitute an important digital asset in its own right – for example, data about customers, or internet of things (IoT) data.

However, the fact that companies are collecting and analysing increasing amounts of data also reinforces two key points:

- **Data quality** – As the volume and variety of data increases, companies need processes in place to ensure they have good quality data. To be valuable to an organisation, data needs to be accurate, consistent and complete.
- **Data security** – Organisations need an effective strategy to keep data secure, particularly that data which is perceived to be most important to the company. This point is central to the issue of cybersecurity (which we look at in Section 6).

In an article, *Protecting your critical digital assets*, the management consultancy firm McKinsey identifies a five step approach which it recommends to clients for protecting their critical digital assets:

(a) Identify and map digital assets, including data, systems and applications across the business value chain

(b) Assess the risks for each asset, and its importance to the business (in order to identify the business' key assets – its 'crown jewel' assets)

(c) Identify potential attackers, the availability of assets to users, and current controls and security measures protecting the systems through which access can be gained to the assets

(d) Locate where security is weakest around crown jewel assets and identify controls that should be in place to protect them

(e) Create, and implement, a set of initiatives to address the high-priority risks and control gaps. (This list of initiatives should be regularly refreshed to reflect new data, systems, applications and risks.)

1.6 Cloud computing

The ICAEW IT Faculty paper *Security and Assurance in the Cloud* (published in 2013) highlights that industry globalisation, coupled with the recent economic climate and the resulting fiscal pressures this places on businesses have resulted in increased demands for the availability, scalability and efficiency of business IT solutions.

One of the most significant consequences of this has been the growth of cloud computing.

Definition

Cloud computing: the delivery of on-demand computing resources – everything from applications to data centres – over the internet on a pay-for-use basis.

(IBM)

Although cloud services are often provided by an external provider and used by multiple customers on the same infrastructure, this is not always the case. Different types of cloud can be identified:

Private cloud – cloud services are supplied on an infrastructure that belongs to only one customer. The service can be managed by the customer themselves, or by the supplier.

Public cloud – the cloud service is owned and provided by a supplier who serves multiple organisations through the same infrastructure system.

Community cloud – a cloud shared by a particular community of organisations with common interests or data protection concerns.

Hybrid cloud – a cloud that is a combination of two or more distinct cloud infrastructures (private, community or public).

Cloud computing technologies have changed the ways in which organisations store and manage their data. An increasing amount of organisational data is now held in servers operated by cloud- based service providers. In effect, cloud computing is the access to business services through the internet.

There could take the form of:

- **Software as a service** – eg, anti-virus software. The software is hosted in the cloud, but appears on users' devices with full functionality. This type of cloud service is the most common, and is often aimed directly at the end user (eg, Hotmail; Gmail).
- **Platform as a service** – eg, Windows Azure. For a fee, the cloud provider offers virtual space in which customers can host and develop their own applications.
- **Infrastructure as a service** – eg, data storage and back-up. Cloud storage can handle all kinds of structured and unstructured data.

1.6.1 Benefits and risks of cloud computing

Cloud computing ('public cloud') can provide an organisation with a number of benefits:

- **Cost effectiveness** – using cloud computing services may be more cost effective than operating in-house technology. Moreover, cloud computing could remove the capital costs required for buying hardware; replacing them with revenue costs for the cloud-based services that an organisation uses.
- **Flexibility** – cloud computing offers companies the capacity to scale up their capacity as required, and so can be ideal for businesses with growing – or fluctuating – service demands. Operational agility is one of the main drivers for cloud adoption.

In a similar vein, establishing a cloud-based approach to data storage and management can be done faster than establishing the technology in-house.

- **Accessibility** – storing organisational data in the cloud means that it is accessible anywhere around the world where there is internet connectivity.

Cloud-based services can also be very useful for **increased collaboration** between teams working in different locations. Similarly, this can also improve document control. Instead of having to send files as email attachments to be worked on by colleagues (with the associated risk of conflicting versions, formats etc.) the cloud enables all files to be stored centrally, so that everyone can see the same version of a file.

- **Availability** – cloud computing is available both to large organisations and much smaller entities alike. This could be particularly important for small companies looking to establish themselves in a market – because the cloud gives them access to cutting-edge technology, without the need for significant capital investment.
- **Automatic software updates** – cloud service providers roll out regular software updates – including security updates – so organisations don't have to worry about updating systems software or systems themselves.

As the ICAEW IT Faculty paper notes, 'Many sources claim that Cloud computing can help organisations lower the total cost of ownership, provide higher return on investment and increase efficiency with features such as dynamic provisioning and utility-like pay-as-you-go services.'

As the services are typically provided using shared computer resources, this helps to achieve economies of scale and lower management costs. The on-demand nature of the service can also lower cost-of-entry barriers to new organisations, because it removes the need for large capital budgets to fund and operate IT data centres, equipment and staff.

In effect, using a public cloud enables an organisation to outsource its IT resources, and so it can be seen as an extension of the business process outsourcing activities we discussed in the chapter Strategic implementation of this Workbook.

However, as with outsourcing in general, an organisation needs to consider the potential risks associated with Cloud computing as well as its benefits. In particular, the increased risks associated with entrusting company information assets to the cloud must be clearly understood and managed by appropriate stakeholders. Perhaps the most obvious concern with using a public cloud is whether the service provider's infrastructure is secure so that an organisation's data and applications are protected while they are stored on the cloud.

If an organisation stores its data on the cloud, then it has to give up control of its data to an external party (ie, the cloud-based service provider). As such, there is a risk that data held by the service provider may be stolen, lost or corrupted. Although this risk might most obviously relate to hacking, there is also a danger that the service provider's own staff might interfere with data stored on its servers.

Although we have mentioned that 'Accessibility' is one of the potential benefits of cloud computing, it is nonetheless important to recognise that there will inevitably be times when the cloud-based services will suffer outages or other technical issues. Even the best cloud service providers can suffer technical issues – or there could be wider connectivity issues preventing an organisation from connecting to the cloud – so it is important to consider the potential impact that any such disruption could have for an organisation, if it adopts a cloud-based model.

Similarly, although we have cited cost effectiveness as a potential benefit of the cloud, it is also important to remember that cloud providers charge for the amount of resource used, so an organisation could be locked into increasing costs as it grows (compared to the diminishing marginal cost of an in-house investment).

The ICAEW paper *Security and Assurance in the Cloud* provides a useful summary of the key concerns an organisation should consider before transferring information to a public cloud:

Concern	Comment
Data privacy, risk and security	An organisation should consider carefully what information it is prepared to place on a cloud. If the information is critical to the business, or an organisation can't be reassured that information will be adequately protected, then it should probably not be moved to the cloud. Is there a practical option to encrypt sensitive information before it is uploaded it to an organisation's cloud provider? (Again, though, if the information is sensitive and needs to be encrypted, then perhaps the organisation should consider whether that information should be placed in the cloud in the first place.)

Access and identity	An organisation should ask potential cloud service providers how access to data that they will be hosting in the cloud will be controlled. As well as identifying how unauthorised access to its data will be prevented, an organisation also needs to identify how other customers, and its own staff, will be granted access to the systems which are hosting its information. Data held in the cloud is typically in a shared (multi-tenancy) environment alongside data from other clients, so there must be effective access separation and confidentiality protection.
Resilience and business continuity	Organisations should maintain backups and have contingency plans in place in case of business interruption or disaster. Before the move to the cloud, they need to ensure their service provider also addresses the need for resilience. Does the service provider have sufficient capacity and a planning process to deal with any outages they may experience? How would the organisation's own business be affected by these? An alternative consideration here is whether the cloud could provide an organisation with a better approach to its own resilience planning, through cost-effective off-site storage of its own data.
Regulatory compliance	Are there any regulatory or legal restrictions which could affect a move to the cloud? For example, are there any restrictions which require you to process information in a specific jurisdiction or country? Another potential issue which could be affected by risk and regulatory constraints is choosing which deployment model is appropriate for an organisation (public, private, community or hybrid).
Assurance	Depending on the nature of an organisation's business, and the range of stakeholders who might have an interest in a move to the cloud, an organisation should consider seeking assurance from potential service providers around key aspects of the service they provide (for example, their plans for data security, service outage and recovery) – before entering into a contract with them. As with any strategic procurement decision, an organisation should not simply engage the first Cloud Service Provider (CSP) it finds, but instead it should work through a comparative evaluation of the providers on the market, focusing on the aspects of service which are key to its needs and identifying the CSP which best fulfils those needs.

1.6.2 Assurance over cloud services

As the fifth concern listed in the table highlights, before becoming a customer of a CSP, an organisation may wish to gain further assurance about how the CSP runs their business –for example, how the CSP manages its own risk and governance and how they select and screen their own staff.

Similarly, aspects of physical security, IT service management, incident management, and business continuity and resilience are all areas which an organisation should consider obtaining assurance over before engaging with a CSP.

It is possible that the CSP may have already engaged an accountant to provide a report on their controls in place at their organisation which can then be made available to all potential customers. However, if such a report is not available, a potential customer should consider asking an accountant of their own to conduct an assurance engagement on the control environment and the controls in place at the CSP.

As we noted in chapter Strategic implementation in relation to outsourcing, ISAE 3402, *Assurance Reports on Controls at a Service Organisation* provides guidance for assurance engagements carried out on service organisations, where the service organisation is responsible for the design of suitable controls.

ISAE 3402 states that the objectives of the service auditor are: to obtain reasonable assurance about whether, in all material respects, based on suitable criteria:

(a) The service organisation's description of its system fairly presents the system as designed and implemented throughout the specified period or as at a specified date

(b) The controls related to the control objectives stated in the service organisation's description of its system were suitably designed throughout the specified period

(c) Where included in the scope of the engagement, the controls operated effectively to provide reasonable assurance that the control objectives stated in the service organisation's description of its system were achieved throughout the period

Security

In its report 'Cloud adoption – Understanding the risk of cloud services' ICAEW's IT faculty provides the following advice in relation to security in the cloud:

It is impossible to guarantee that data can be totally secure. Vulnerabilities are found in software all the time, and any platform that is publicly accessible carries more inherent risk than one that is not. From a security perspective, the following questions should be asked of the service provider to ensure they follow the best practice principles.

- Is the platform regularly given to third-party 'penetration testers' for potential vulnerabilities, who vigorously test the platform to determine whether an attacker could gain unauthorised access?
- What is the process in the event of a security breach being determined?
- Is data held on the platform stored in an encrypted format?
- Is payment data held on a platform which complies with the payment card industry's data security standard (PCI DSS)?
- Are there recognised, standard working processes and procedures in place and adopted (for example, ISO accreditations held)?
- Is the platform protected against 'denial of service' attacks, where attackers could prevent access to the service indefinitely by flooding the platform with erroneous traffic or requests for information?

The level of security deemed necessary will depend on the value of the data in the users' eyes, but all users of a service should feel satisfied that efforts are being made to secure the platform against unauthorised third parties that may seek to disrupt access to the service, or obtain a copy of the data for malicious intent.

Note: As a general point, ensuring the security of a platform is particularly important in the context of the General Data Protection Regulation (GDPR) – discussed later – which requires organisations to have appropriate security measures in place to protect any personal data they hold.

1.6.3 Cloud computing, software and big data

The ICAEW IT Faculty (2014) publication *Big data and analytics – what's new?* Highlights that the enormous growth in computer power and storage in recent years has been the core enabler of big

data –by making it possible to capture and process entire data sets, regardless of their size and complexity.

The publication also notes that the cloud computing model further supports the widespread use of big data. By using a cloud, a business doesn't need to buy all the computing resources it might use, but instead simply uses them when needed. Therefore the cloud model potentially provides a business with access to vast computing resources – as would be needed to collect and process big data – on an efficient and flexible basis.

Software advances have also complemented the development in processing and storage capability. For example, new types of software support large and unstructured data sets better than traditional database management systems. Software such as Apache Hadoop supports the management of very large data sets by splitting the processing between many computers.

Similarly, capabilities in handling unstructured data, such as video and text, have also improved.

Importantly, as the document *Big data and analytics – what's new?* points out, these increases in computing power and capabilities make it economically viable for businesses to collect and process data from many sources:

- The internet provides a variety of clickstream data, such as searches, site visited, and goods viewed, as well as actual transaction
- Social media has created new types of data, including status updates, comments and likes, photos and videos
- Mobile technology is providing more opportunity to create social media and internet data, and generates new data about the location of individuals
- Open data – relating primarily to public sector data, such as geo-spatial data or transport data
- The 'internet of things' – resulting from computer chips and sensors being embedded in physical assets (such as machines or domestic appliances)

As we have already discussed in the chapter Data analysis, businesses can then use the resulting data to enhance their understanding of their operations and their customers – for example, by using more detailed data about customers to understand their preferences, and then exploiting the real-time nature of big data to improve services, for example by personalising the offers made to customers.

However, as we noted in the chapter Data analysis also, it is important to remember that data analytics and 'big data' are not the same thing, and data analytics does not relate solely to 'big data'.

Although increases in technology make it possible for business to collect and examine unstructured, external data (ie, big data), organisations can still use analytics techniques to identify patterns and trends in internal data.

1.6.4 Cloud computing vs owned technology

In the preceding sections, we have looked at the potential benefits, and risks, associated with cloud computing. The balance between these benefits and risks becomes critical for senior management within organisations when they are deciding whether their organisation should pursue a cloud-based approach to data management, or whether to continue to manage data in-house using owned hardware and software.

The answer to such a question could depend on a number of factors. Organisations with IT staff that possess the levels of expertise required to manage IT systems may prefer to retain data storage and data management in-house. Similarly, complex data compliance requirements, or a risk averse attitude among senior management about allowing external parties to control organisational data, will make in-house data management more likely.

Conversely, for organisations, particularly small and medium-sized entities that need a multi-national or global presence but lack the necessary IT expertise and resources to manage their data and infrastructure in-house, a cloud-based approach could be an appropriate choice.

A related question for organisations to consider is: what data will they store in the cloud? In particular, will personal data be part of the data accessed or stored in a cloud computing service? Personal data is subject to data protection laws (such as the EU's General Data Protection Regulation (GDPR), and an organisation must still comply with those laws even if it uses external providers.

Typically, in law, the cloud service provider is viewed as a data processor, acting on the instructions of the data controller (the organisation using the cloud platform). As such, the data controller is

required to ensure that its agreement with the cloud provider meets data protection standards, and that it minimises the risks of data misuse or loss.

1.7 The impact of cloud computing and borderless businesses on strategic management information

In chapter Strategic choice, when we discussed borderless business, we identified that one of the key factors underpinning internationalisation has been the flow of information, supported by developments in communications.

However, developments in technology – particularly in relation to cloud computing – are equally important in providing information to help manage borderless businesses. On the one hand, this can relate to the timeliness and quality of information which is available for management. On the other hand, the data which can be transmitted through the cloud can also drive innovation and improve the performance of business operations.

1.7.1 Performance information

By definition, a borderless business is one which has operations in multiple countries. However, in order for senior management to know how the business as a whole is performing, they will need information about all of the operations – in different countries, and in different industries or market segments.

Historically, local operations are likely to have produced their own management information packs and then emailed them to head office at the end of each period.

Cloud-based data processing products enable managers to access real-time (or near-time) financial information for all the operations, providing the business with much timelier financial management information than was previously available.

Context example: Specsavers

The following case study is summarised from an article in ICAEW's Finance & Management publication (October 2015). Although it relates to a multi-site business, rather than a multinational one, it still illustrates the way cloud computing can help to improve management information for planning and control.

For any growing business, the ability to manage data in multiple silos is challenging. The problems of collecting the data, reconciling it, and having confidence that the consolidated information represents reality, can slow down decision making and increase risk.

Yet this is the inevitable consequence of multi-location business, for example, a chain of retailers. That was the problem faced in 2014 by Specsavers, which managed budgeting and forecasting for its 2,000 locally-run retail businesses using Excel spreadsheets. The group planning and reporting manager at Specsavers described the situation as 'a world of Excel silos… a version control nightmare among numerous stakeholders and contributors'. He admitted that 'inaccuracies increasingly threatened to throw business goals off course'.

The solution was to use a single cloud-based application. The cloud-based software has the look and feel of a spreadsheet, but it creates a standardised version of budgets, forecasts and reports that is distributed to all users. Anyone with the correct privileges, who logs in, can analyse business performance at that moment, across all the locations.

The financial benefit is measured through better, quicker, more accurate planning… Another process benefit is that many Specsavers senior executives now do their own financial reporting without waiting for consolidated results from 2,000 spreadsheets. As the group planning and reporting managers put it, 'The company is now all on the same financial page.'

Source: Phillips, T. (2015) Head in the Clouds, *Finance & Management*, October 2015

1.7.2 Availability and accessibility of information

As we noted earlier in our discussion of cloud computing earlier in this section, storing data in the cloud means it is accessible from anywhere in the world (where there is internet connectivity), and at any time of day.

This could be particularly important for senior managers in borderless businesses, who will travel around the world, and consequently may need to work from anywhere, and access information from

different places. Cloud-based applications will enable information from all parts of the business to be instantly available to employees and managers who need it – regardless of their location or time zone.

Equally importantly, borderless firms will need to coordinate functions and activities in different locations (for example, coordinating the flow of components or finished goods across the supply chain). Here again, a cloud-based system will enable users in different locations to access the information they need. Moreover, this information could also be shared with suppliers and distributors to enable a business to integrate supply chains distributed across different countries.

More generally, cloud computing improves cross-border data flows, and organisations can benefit from this by streamlining their operations, and improving their products and services.

Context example: Rio Tinto

Rio Tinto is a leading mining and metals company with operations in over 40 countries, including a strong presence in Australia and North America.

To make its mining operations more efficient, Rio Tinto created its 'Mine of the Future' programme to identify the size, location and quality of ore it is mining, by aggregating the data it collects in real time. The company collects this data from the trucks and from the drills it uses in its mines all around the world. In addition it collects information from process surveillance cameras, control systems and maintenance system logs.

This information is then processed at its Processing Excellence Centre (PEC) in Brisbane, Australia, with 20 different analytical systems. The 'Mine of the Future' programme has generated millions of dollars in savings across Rio Tinto's global operations by rooting out inefficiencies.

Rio Tinto is able to use this efficiency to be more environmentally friendly, and to promote safer mining in each of its locations. More efficient mining, in turn, also leads to cost benefits.

Adapted from: Castro, D. & McQuinn A. (2015) Cross-Border Data Flows Enable Growth in All Industries, *Information Technology & Innovation Foundation*, February 2015

1.7.3 Scalability

Another important characteristic of the 'cloud' is that it is effectively infinite in size, and so firms can increase their data storage capacity as required.

The dynamics of global competition mean that firms have to meet heightened customer expectations in terms of quality, price and value. As a result, firms are typically holding more data – about their customers, and about detailed sales trends – than ever before. In this respect, the ability to store large data sets – especially, unstructured 'big data' sets, could be very useful in providing borderless businesses with insights into their customers in different countries and different markets.

Similarly, being able to store large data sets could also be important in enabling them to monitor the detailed performance of their suppliers

Context example: ING

Banks use data to improve decision making in a number of ways, including improving the customer experience, developing new products, and informing marketing decisions.

The Dutch bank ING serves over 48 million individual and institutional clients in more than 40 countries, and has a workforce of over 75,000 employees.

ING was an early adopter of big data analytics to analyse its financial data, website interactions, customer service calls, user feedback, and other data to segment its consumers and use predictive marketing.

ING collects detailed information about how customers – across different countries – interact with the bank in person, online and over social media. It then uses that information to inform its marketing strategy, brand development, customer relations, and even the products it offers. In turn, this allows ING to deliver tailored services to suit an individual consumer's needs, such as personalised bank alerts, more robust cybersecurity, better fraud detection, lower interest rates for borrowers (due to reduced credit card fraud) and top-quality customer service.

To support this analysis, ING has rebuilt its cloud computing infrastructure to help accommodate the volume of data it collects.

Adapted from: Castro, D. & McQuinn A. (2015) Cross-Border Data Flows Enable Growth in All Industries, *Information Technology & Innovation Foundation*, February 2015

1.7.4 Cryptocurrencies

As we noted in the chapter Strategic analysis, one of the potential benefits of cryptocurrencies is that they can be used by people anywhere in the world to transact with each other, in almost real-time, thereby removing the time and cost of making cross-border payments.

However, as also noted in the chapter Strategic analysis, if an organisation starts using cryptocurrencies then it will also need to consider how they should be accounted for, because there are currently no specific accounting requirements for them. Nonetheless, it will be essential that the organisation records its cryptocurrency transactions in its management information, so it will need to decide the accounting treatment it is going to apply, and then apply it consistently.

One further issue to consider is the potential volatility in the value of the cryptocurrencies themselves, so the use of cryptocurrency could increase an organisation's balance sheet exposure, depending on the process of converting between cryptocurrency and fiat currency (£, $, € etc). Again though, this volatility could increase the importance of disclosing information about an organisation's cryptocurrencies transactions and balances – particularly if the organisation makes a significant number of cryptocurrency transactions.

1.8 The internet, intranets and extranets

The internet has been the most influential technology in the last few decades: e-commerce could simply not exist without the internet.

Intranets use the same technologies as the internet, but access to them is restricted to computer networks within an organisation. The purpose of intranets is to allow the secure sharing of information to any part of an organisation, its system and its staff.

Extranets link organisations together through secure business networks using internet technology.

Extranets are particularly useful for various aspects of **supply chain management**; for example, details of orders placed with suppliers, orders received from customers, payments to suppliers and payments received from customers can all be transmitted through extranets. Similarly, banks can also be incorporated in these networks.

Using networks in this way is often called **electronic data interchange** (EDI).

1.8.1 E-business and e-commerce

E-business is the use of internet-based technology to either support existing business processes or to create entirely new business opportunities.

Where these internet-based operations or processes are connected to a buying or selling activity, they become **e-commerce**.

E-commerce strategy

Most experts agree that a successful strategy for e-commerce cannot simply be bolted on to existing processes, systems, delivery routes and business models. Instead, management groups have, in effect, to start again by asking themselves fundamental questions.

- What do customers want to buy from us?
- What business should we be in?

- What kind of partners might we need?
- What categories of customer do we want to attract and retain?

In turn, organisations can visualise the necessary changes at **three interconnected levels**:

Level 1 – the simple **introduction of new technology** to connect electronically with employees, customers and suppliers (eg, through an intranet, extranet or website)

Level 2 – **reorganisation** of the workforce, processes, systems and strategy in order to make best use of the new technology

Level 3 – **repositioning** of the organisation to fit it into the emerging e-economy

So far, very few companies have gone beyond Levels 1 and 2. Instead, pure internet businesses such as Amazon have emerged from these new rules. Unburdened by physical assets, their competitive advantage lies in **knowledge management** and **customer relationships**.

1.8.2 M-business

In addition to e-business, we should recognise the increasing importance of accessing computer- mediated networks from mobile devices while on the move (eg, mobile phones, personal digital assistants and tablet computers).

1.8.3 Virtual arrangements

Network technologies are used by organisations to integrate workers across sites and working at home. Developments in broadband, particularly improved capacity and better data security, have improved the ability to communicate across sites and from **home**. Broadband telecommunications systems allow 'remote' computer users to communicate with each other, and to send and receive information.

A virtual organisation can be seen as an extension of the idea of network organisations, although truly virtual organisations do not have any physical presence at all.

There is some disagreement among academics as to a precise definition of the virtual organisation, but a consensus exists with regard to **geographical dispersion** and the centrality of **IT** to the production process.

Virtual organisations use networks to link people, assets and ideas, enabling a virtual organisation to ally with other organisations to create and distribute products and services without being limited by traditional organisation boundaries or physical locations. In a virtual network, one organisation can use the capabilities of another without being physically tied to that organisation.

The virtual organisation model is useful when a company finds it is cheaper to acquire products, services or capabilities from an external vendor, or when it needs to move quickly to exploit new market opportunities but lacks the time and/or resources to respond to the opportunities on its own.

An organisation is not a virtual organisation merely because it uses IT extensively and has multiple locations. Nevertheless, the ability to share information between members of a virtual organisation is likely to be critical to its operation.

Context example: Amazon

Amazon.com could be viewed as a virtual organisation.

Customers come to the Amazon website via internet service providers, often from links on other (affiliate) websites. Although Amazon processes the customers' orders, it does not hold much inventory itself. If a customer orders a book through Amazon it is likely the book will be dispatched from the publisher's warehouse, and the delivery will be handled by a logistics or mail company.

Nonetheless, the customer feels they are dealing with one organisation (Amazon) and not many different companies.

But for this relationship to work, Amazon needs information from its partners – for example, it needs to know inventory availability and an estimate of delivery times so that it can provide this information for the customer when they make their order. Equally, Amazon needs to be confident that its partners will deliver the service they have agreed to provide (for example, if a partner says inventory will be available in 48 hours, then it needs to be available in 48 hours).

Note: In the chapter Strategic choice, we looked at platform-based business models in the context of digital strategies. In the sense that platform-based business models work by bringing producers and consumers together, rather than by an organisation making and selling a product or service itself, we can suggest that these might also be seen as examples of virtual organisations.

1.9 E-business strategies

We can identify three broad types of e-business strategy which a company can employ to help it gain a competitive advantage:

Cost and efficiency improvements: Focus on improving efficiency and lowering costs by using the internet and other digital technologies as a fast, low-cost way to communicate and interact with

customers, suppliers and business partners (eg, use of email to communicate with customers; and EDI to communicate with suppliers)

Performance improvement in business effectiveness: Make major improvements in business effectiveness – for example, the use of intranets can substantially improve information sharing, collaboration and knowledge management within a business or with its trading partners

Product and service transformation: Developing new internet-based products and services, or supporting entry into new markets (including e-commerce which enables access to a global marketplace)

1.10 IT and competitive advantage

Throughout this section, we have alluded to the potential which IT has as a source of competitive advantage for companies. However, it is important to note that companies only achieve competitive advantage by doing something different from their competitors, and they only achieve sustainable competitive advantage by doing something which their competitors cannot replicate over time.

For example, the first airline company to introduce self-service check-in kiosks gained a competitive advantage (or source of differentiation) by doing so. However, all the major airline companies now have self-service check-in kiosks so they are no longer a source of competitive advantage. By contrast, not having them would place a company at a competitive disadvantage.

Equally, when the first logistics and shipping company allowed customers to track their packages via the web, this innovation was seen as a source of competitive advantage. Now, however, we expect to be able to track orders with all logistics and shipping companies.

Both the examples above illustrate the importance of IT to modern business strategy. However, they also illustrate that the majority of innovations which confer competitive advantage on the companies which adopt them first are subsequently shared and become routine.

In this respect, we can divide IT investments into two broad categories: strategic IT and utility IT.

Strategic IT represents spending on new capabilities which directly supports new business strategies and innovations; all the remainder of IT spending is utility spending.

Customised applications and application platforms

In the same way that we can distinguish between strategic IT and utility IT, we also need to distinguish between customised applications and generic software.

Although packaged software is vital to many businesses, gaining any competitive advantage or differentiation from a generic package is very difficult (because competitors can also use the package). Therefore, strategic IT investments are most often based on custom applications.

Crucially, a company needs its application platform to support current technologies. Therefore, a company's choice of application platform (such as the Microsoft application platform) can be a key part of creating competitive advantage.

1.10.1 Artificial intelligence

We have already discussed (in the chapters Strategic choice and Data analysis) the potential for organisations to use artificial intelligence (AI) and machine learning to improve their performance.

Context example: H&M

The 'fast fashion' industry is highly competitive, and in response to falling sales the multi-national retailer H&M is using insights from AI and big data to try to improve performance.

To be successful, fast-fashion retailers need to predict what the market wants to avoid a bad product cycle. Because the price points are already very low, it is tough for fast-fashion retailers to recover from bad purchase decisions and to move unwanted inventory.

The insights provided by data can help to build a more flexible and faster supply chain, facilitate trend detection, manage inventory and set prices.

Inventory for individual stores – Traditionally, all H&M stores would carry very similar merchandise (whether located in Germany, the UK, the US or Sweden). However, this meant H&M regularly need to cut prices to clear unsold inventory from its stores around the world (more than 4,000 of them). In an effort to stock individual stores with merchandise local customers want, H&M is using big data and AI to analyse receipts, returns and loyalty card data to tailor the merchandise for each store.

Automated warehouses – In order to get customised inventory to each store, H&M invested in automated warehouses that will ultimately result in next-day delivery for 90% of its European market. The company is also rolling out RFID technology to its stores to improve efficiencies in its supply chain.

Customer experience – H&M already offers personalised recommendations for online shoppers, but it is bringing that capability to its 'bricks-and-mortar' stores. When they are in a store, customers can explore suggestions for merchandise selected for them by algorithms.

H&M is also working on a better integration between the online and offline shopping experience; for example, enabling customers to find out if an item they discovered online is available at a physical store nearby.

Customised design – As a result of a partnership with Google and H&M's digital fashion house, Ivyrevel, the company has introduced Coded Couture. This is an Android application that monitors customers' activity and lifestyle and then custom designs and produces a dress – the 'Data Dress'. Depending on how an individual spends their day, the app translates how active they are, where they eat, and the typical weather in the area to make decisions about colour, materials and added details for a bespoke look, promising to 'create one-of-a-kind designs' based on how individuals live their lives.

Based on: Marr B. (2018) *How Fashion Retailer H&M is Betting on Artificial Intelligence and Big Data to Regain Profitability* [Online] Available from: https://www.forbes.com/sites/bernardmarr/2018/08/10/how-fashion-retailer-hm-is-betting-on- artificial-intelligence-and-big-data-to-regain-profitability/#6e93e6565b00 [Accessed 14 August 2018]

However, while AI and machine learning can be very powerful, there are still potential risks and issues around using them which organisations need to be aware of:

Data accuracy – Organisations need to ensure that the AI systems they use produce correct, precise and reliable results. In many cases, machine learning involves 'supervised learning' in which a machine 'learns' a process or task from labelled training data. However, in order for the machine to learn accurately, the training data needs to be free from bias and systematic error – for example, arising from an unfair sampling of a population.

Interpretability – As AI algorithms become more complex, it becomes increasingly difficult for humans to make sense of how they work. In some cases, AI applications are a 'black box' where not even engineers can decipher why a machine made a certain decision. However, this could be a cause of concern for businesses and the public. The use of 'black box' algorithms makes it difficult not only to identify when things go wrong, but also to determine who is responsible in the event that they do (for example, if a 'driverless' car is involved in an accident).

Accountability – Accountability is a central element of corporate governance, and implies that there should be a line of responsibility for business actions. However, as the point about 'interpretability' identifies, AI systems introduce an additional level of complexity into any discussions about accountability. Who is responsible for the decision-making process of a machine? This question is complicated further because AI is largely outsourced by companies, rather than being developed in house. So, if an algorithm goes wrong, who is accountable: the designer, or the company which is using it? And if it is the company, then who within the company is accountable? These questions are a source of considerable debate, and no clear answers have yet emerged.

However, as the Institute of Business Ethics notes in its briefing paper *Business Ethics and Artificial Intelligence*: 'Some business leaders have indicated that responsible organisations need to redefine how they interact with technology to be able to be seen as trustworthy in the age of artificial intelligence. People tend to trust those… institutions that operate with openness and take account of the public interest. Working with regulators and policy makers, businesses have the opportunity to make a significant contribution to agree on a framework of ethics and norms in which AI can thrive and innovate safely,'

2 Information for strategic planning and control

Section overview

- Managers need information (including management accounting information) for three main reasons:
  - To make effective **decisions** (for example, how much of a product to make, what price to charge for it, and what distribution channels to use)
  - To **control** the activities of an organisation. There are four steps to this control process: establish measurable goals, measure actual performance, compare actual performance against the goals, and then take corrective action if necessary
  - **Coordinating** the activities of different departments and divisions (for example, by coordinating the flow of materials, semi-finished goods, and finished goods throughout the supply chain)

2.1 Management information and strategy

Managers need information for three main reasons:

- To make effective **decisions**
- To **control** the activities of the organisation
- to **coordinate** the activities of the organisation

2.1.1 Information and decisions

Decision making is a key element of management. For example, a marketing manager must decide what price to charge for a product, what distribution channels to use and how to promote the product. Equally, a production manager must decide how much of a product to make, while a purchasing manager must decide how much inventory to hold and whom to buy inputs from.

At a more strategic level, senior managers must decide how to allocate scarce financial resources among competing projects, how the organisation should be structured, or what business-level strategy an organisation should be pursuing.

In order to make effective decisions, managers need information from both inside and outside the organisation. For example, when deciding how to price a product, marketing managers need information about the way consumer demand will vary in relation to different prices, the cost of producing the product and the organisation's overall competitive strategy (since its pricing strategy will need to be consistent with this overall strategy).

2.1.2 Information and control

The management control process can be summarised in four key steps:

- Establish measurable standards of performance or goals
- Measure actual performance
- Compare actual performance against established goals
- Evaluate the results and take corrective action where necessary

As we have identified in the chapter Strategic performance management, and as section 2.2 below reminds us, management accounting information plays a key role in this respect – by enabling managers to measure performance and to control the business, by comparing actual performance against goals and targets.

2.1.3 Information and coordination

The third key element of management is coordinating the activities of individuals, departments or divisions in order to achieve organisational goals.

For example, in the chapter Strategic implementation we looked at supply chain management, and one area where co ordination is particularly important is in relation to managing global supply chains. Organisations are using increasingly sophisticated IT systems to coordinate the flow of materials, work in progress and finished products throughout the world. (Such control and coordination is particularly important for organisations which employ a 'just in time' production system, where there is little or no 'buffer stock' to draw on in the event of any delay or disruption in the supply chain.)

2.2 Management accounting information

Management accounting information is used by managers for a variety of purposes:

(a) **To measure performance**. Management accounting information can be used to analyse the performance of the business as a whole, and of the individual divisions, departments or products within the business. Performance reports provide **feedback**, most frequently in the form of comparison between actual performance and budget.

(b) **To control the business**. Performance reports are a crucial element in controlling a business. In order to be able to control their business, managers need to know the following:

    (1) What they want the business to achieve (targets or standards; **budgets**)

    (2) What the business is actually achieving (**actual performance**)

By comparing the actual achievements with targeted performance, and identifying **variances**, management can decide whether corrective action is needed, and then take the necessary action when required.

Much control information is of an accounting nature because costs, revenues, profits and asset values are major factors in how well or how badly a business performs.

(c) **To plan for the future**. Managers have to plan, and they need information to do this. Much of the information they use is management accounting information.

(d) **To make decisions**. As we have seen, managers are faced with several types of decision:

    (1) **Strategic decisions** (which relate to the longer-term objectives of a business) require information which tends to relate to the organisation as a whole, is in summary form and is derived from both internal and external sources.

    (2) **Tactical and operational decisions** (which relate to the short or medium term and to a department, product or division rather than the organisation as a whole) require information which is more detailed and more restricted in its sources.

In the remainder of this section, we will look briefly at some of the management accounting information and management accounting tools which managers can use to evaluate aspects of business strategies.

Professional skills focus: Assimilating and using information

One of the challenges of the SBM&L exam is to draw conclusions from data, facts, calculations and your own analysis. Scenario exhibits may include different types of data which you should use to perform further analysis. This will enable you to provide the business in the scenario with clear and practicable advice.

2.3 Costs

One of the most crucial elements of an organisation's performance management and control is to ensure that the value created by its activities is greater than the cost of carrying out those activities. (This is the point highlighted by the 'margin' element in Porter's value chain model.)

2.3.1 Costs and strategy

A key element of performance measurement and control for a company will be ensuring that its costs remain under control. However, cost information is also important from a strategic perspective.

For example:

A company's choice of generic strategy interacts with cost and value. A company which is pursuing a **cost leadership** strategy needs to maintain a strict control of costs (and, wherever possible, also needs to benchmark its costs and the efficiency of its processes against its competitors to ensure its costs remain lower than theirs).

However, a **differentiation** strategy will also have cost implications – for example, associated with product quality and customer service or after-sales service.

Moreover, the structure of costs and value creation is likely to change over time, as illustrated, for example, in the **product life cycle**. As sales and production rise in the growth stage of the life cycle, unit costs could be expected to fall due to **economies of scale**. In the mature stage, prices become increasingly sensitive as firms compete with one another to try to increase their share of the market. Therefore cost reductions may be required to help firms sustain their profits.

Costs and decision making

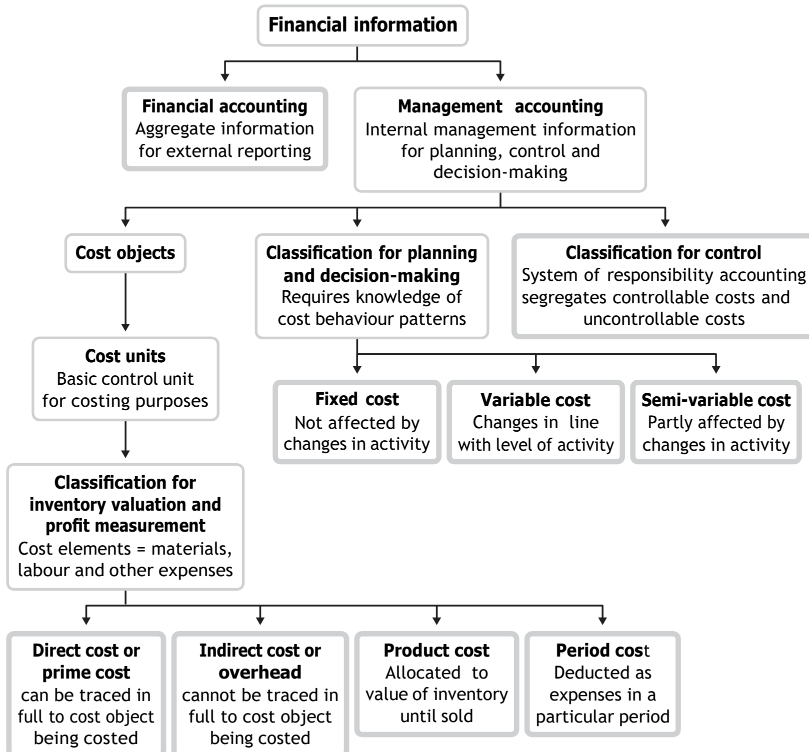
Managers also need to know the cost of producing different products and services because they cannot make informed decisions about pricing or about whether or not to continue producing them without having accurate cost information.

Sub-optimal decision making – Importantly, if managers do not have accurate and reliable cost information, this is likely to lead to sub-optimal decision making. For example, if the costs attributed to producing a product are understated, then a company may continue producing that product when it would actually be better advised to stop producing it.

Short- vs long-term trade-off – Equally, managers may find themselves under pressure to reduce costs. However, it is important that decisions taken to reduce costs in the short term don't hinder an organisation's ability to achieve its strategic goals. For example, if marketing expenditure is reduced to cut costs in the short term, this could be detrimental to an organisation's strategic goal to increase market share.

2.3.2 Cost classification

You should already be familiar with cost classification from your earlier studies, but here is a summary brought forward from the Management Information paper.



Make sure you are familiar with all these classifications.

2.3.3 Costing systems

One of the purposes of the following costing systems is to calculate the cost of a unit of output which can ultimately be used to set the selling price.

Absorption costing

With absorption costing, a unit of output is valued at **full cost** – that is, the prime cost plus an absorbed share of production overhead costs.

Marginal costing

Marginal costing is an alternative to absorption costing where only variable costs are included in the valuation of units. All fixed costs are treated as period costs and written off against sales revenue in the period in which they are incurred.

The difference in unit valuations using the two methods lies in the treatment of the fixed costs. The absorption cost of sales will include some fixed costs from a previous period (included in opening inventory) while all fixed costs are written off as expenses in the year of incurrence with marginal costing.

Interactive question 2: Absorption and marginal costing

Hamilton Ltd manufactures and sells a single product, the Feronda, which has a selling price of £150 per unit and variable costs of £70 per unit. During the months of July and August, the following details are available.

	July	August
Fixed production costs	£110,000	£110,000
Production	2,000 units	2,500 units
Sales	1,500 units	3,000 units

Hamilton Ltd normally expects to produce 2,200 units and fixed production costs were budgeted at £110,000 per month, which are absorbed on a per unit basis. There were no opening inventories in July.

Requirements

1.1 Determine the profit for each of July and August using:

(a) Absorption costing

(b) Marginal costing

1.2 Demonstrate why the profits under each method are different.

See **Answer** at the end of this chapter.

2.3.4 Activity-based costing (ABC)

Activity-based costing (ABC) is an alternative approach to absorption costing. Cost drivers – that is, those activities that cause costs in the first place – are identified and overheads are assigned to products or services based on the number of the cost drivers generated by each. More than one cost might have the same cost driver, so costs associated with the same driver are gathered into cost pools and then allocated using the appropriate driver. The product costs resulting from ABC should be more accurate than those under absorption costing, as overheads are allocated on a more objective basis. Try the question below to make sure you remember the principles and procedures of ABC.

Interactive question 3: ABC

Tammy plc currently makes and sells four products, cost and output details of which are below.

Product	Alpha	Bravo	Echo	Oscar
Output (units)	500	300	400	200
Cost per unit (£)				
Material	60	42	80	100
Labour	32	20	35	50
Activities				
Number of set ups	20	15	30	35
Number of times materials handled	3	4	2	6
Number of orders	11	12	16	25
Number of spare parts required	15	20	10	15

Total overhead costs		
	£	
Set-up costs	25,000	
Material handling	69,000	
Ordering costs	32,000	
Engineering costs	45,000	
	171,000	

Requirements

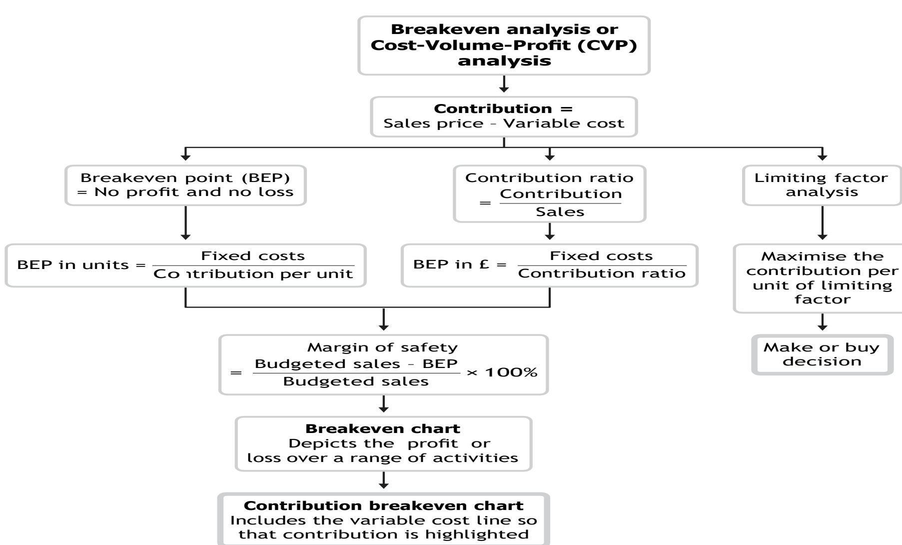
2.1 Using the information given, what is the most suitable cost driver for each overhead cost?

2.2 Calculate the total product cost for each of the four products, showing all workings. See **Answer** at the end of this chapter.

2.4 Breakeven analysis

Breakeven analysis is the study of the interrelationships between costs, volume and profit at various levels of activity. The study of breakeven analysis requires understanding, application and interpretation of various formulae which are summarised below.

You will notice from the chart that breakeven analysis is also used for decision making purposes where there are limiting factors, such as make or buy decisions. Remember that the most important figure for decision making is **contribution** – if a product is making a contribution towards fixed costs then production should continue, as overall profit will be reduced (or loss increased) if this contribution is lost.



Interactive question 4: Breakeven analysis

Bonzo plc manufactures and sells roller skates. Information regarding the current sales volume, price and costs as well as anticipated changes resulting from a planned marketing campaign can be seen in the spreadsheet extract below:

	A	B	C
1		Current	After campaign
2	Sales price per pair	55	65
3	Variable cost per pair	25	25
4	Fixed costs:		
5	Marketing	75,000	115,000
6	Salaries	200,000	200,000
7	Other	150,000	150,000
8	Annual sales volume (pairs)	20,000	20,000

Requirements

4.1 Using the information provided in the spreadsheet extract, calculate how many pairs of roller skates have to be sold in one year for Bonzo plc to break even, before the marketing campaign?

4.2 Using the information provided in the spreadsheet extract, calculate the current margin of safety in terms of number of pairs of skates sold?

4.3 Following the marketing campaign, if Bonzo plc wishes to make a profit of £25,000, how much sales revenue must be generated from the sale of roller skates? Use the relevant information from the spreadsheet extract.

See **Answer** at the end of this chapter.

2.5 Multi-product breakeven analysis

The key issue with multi-product breakeven problems is determining the mix in which the products are sold and reducing it to the lowest common denominator. For example, if 500 units of Product X and 250 units of Product Y are sold, then the mix in which the two products are sold is 2:1.This mix is used to define a standard batch which can be used to determine a breakeven point in terms of number of batches. Once this has been determined, the number of batches can then be converted into the number of units of each product that must be sold at the breakeven point.

Worked example: Multi-product breakeven analysis

Toodiloo Ltd manufactures and sells two types of microwave oven: the Silver Star oven and the Gold Senator combination oven and grill. The following information is available for the two models.

	Silver Star	Gold Senator
Sales volume in units	5,000	3,000
Per unit:	£	£
Selling price	65.00	90.00
Variable costs	45.00	60.00

Direct fixed costs are £40,000 for the Silver Star and £30,000 for the Gold Senator. General fixed costs, which can only be avoided if neither model is sold, are £63,000.

Requirement

Calculate how many units of each model would have to be sold for Toodiloo Ltd to cover all its fixed costs.

Solution

As with all breakeven questions, the first thing to do is to establish the contribution per unit:

	Silver Star £	Gold Senator £
Selling price	65.00	90.00
Variable costs	45.00	60.00
Contribution per unit	20.00	30.00

The key to multi-product breakeven analysis is to look at the product mix. In this case we are told that Toodiloo sells 5,000 units of the Silver Star and 3,000 units of the Gold Senator, giving a product mix ratio of 5:3. A standard batch can therefore be assumed to comprise five Silver Star and three Gold Senator, which will give a total contribution towards total fixed costs of £190 (5 × £20.00 + 3 ×£30.00).

Using the total contribution per standard batch, we can calculate the number of batches that have to be sold in order to break even:

$$\text{Breakeven point in batches} = \frac{\text{Total fixed costs}}{\text{Contribution per batch}}$$

$$= \frac{133{,}00}{190}$$

= 700 batches

How many units of each model will have to be sold in order to break even? Remember that in every batch, five units of the Silver Star are sold and three units of the Gold Senator. Therefore, in order to break even, Toodiloo will have to sell:

Silver Star: 5 × 700 = 3,500 units

Gold Senator: 3 × 700 = 2,100 units

Check:

	Silver (£)	Gold (£)	Total (£)
Contribution per unit	20.00	30.00	
Total contribution	70,000	63,000	133,000
Fixed costs: Direct	40,000	30,000	70,000
General			63,000
Total profit/(loss)			NIL

Note: You will have probably noticed that this breakeven number of batches and units will only work if the product mix remains at 5:3. As soon as the product mix changes, you will have to calculate a new breakeven point. As you might expect, an increase in the proportion of sales of products with a higher contribution will normally reduce the breakeven point, while an increase in the proportion of sales of products with a lower contribution will normally increase the breakeven point.

Interactive question 5: Multi-product breakeven analysis

Netcord Ltd produces and sells three different types of tennis racquet: the McEnrova, the Grafassi and the Federdal. The sales and costs forecast for the next period are as follows.

	McEnrova	**Grafassi**	**Federdal**	**Total**
Sales units	8,000	6,000	4,000	
	£	£	£	£
Sales revenue	320,000	360,000	400,000	
Variable costs	176,000	228,000	280,000	
Contribution	144,000	132,000	120,000	396,000
Total fixed costs				306,900
Net profit				89,100

Total fixed costs can only be avoided if all models are eliminated.

Requirement

How many units of each model must be sold in order for Netcord Ltd to break even and what is the breakeven sales revenue?

See **Answer** at the end of this chapter.

2.6 Price

Price is a key element of the marketing mix, and you should have covered pricing and pricing issues in the Business Strategy and Technology syllabus at Professional level. However, when evaluating pricing strategies, it is vital to consider how 'price' information fits with the other elements of the marketing mix.

Price directly affects how well an organisation performs competitively, and is also closely linked to the perceptions of value for money held by the customers.

If the price is too high, the exchange may not be perceived as worthwhile, and customers may not buy the product.

If the price is too low, then one of two things could happen:

(a) The product sells well; however, the revenue per item is lower than it could be if the price were higher, so less revenue is earned which in turn means less profit than may be possible with a higher price.

(b) The consumer perceives the price to be too low and interprets this as meaning quality has been compromised. The customer does not buy the product at all.

Getting this balance right (and not setting a price either too high or too low) can be difficult and the organisation will have to take many factors into account when setting the price for its products and services.

The following factors should be considered when evaluating a firm's pricing strategy:

(a) What are the **pricing objectives** (for example, budget pricing and premium pricing)?

(b) What are the firm's **target markets**, and what will they be prepared to pay for the firm's products?

(c) How will demand for the firm's products or services vary with price (ie, what is their price elasticity)?

(d) What is the relationship between demand, cost and profit (eg, how does the breakeven point vary for a range of different prices)?

(e) How do the firm's prices compare to **competitors' prices**?

(f) What is the basis for pricing?

- **Cost-based pricing** (marginal cost-plus, full cost-plus pricing, mark-up pricing, target-return pricing)
- **Demand-based pricing** (set prices high when demand is high, and low when demand is low)
- **Competition prices** (set prices in relation to competitors' pricing, depending on the organisation's strategy)
- **Marketing-orientated pricing** (set prices to reflect the marketing strategy: ie, target market profile, brand positioning and sales targets)

(g) What is the pricing strategy?

- For example:
- **Differential pricing** (charging different prices to different customers for the same quality and quantity of product)
- **New product pricing** (price skimming, penetration pricing)
- **Psychological pricing** (eg, everyday low prices; bundle pricing, where two or more complementary products are sold together for a single price which is lower than the aggregate price if both were purchased separately; prestige pricing, where prices are set artificially high to give a product a 'quality' image)
- **Promotional pricing** (eg, selling products below the usual mark up for a short-term period)

Prices have to be revised in response to market conditions and trends (eg, recession, new entrants). In the short term, firms can also use **dynamic pricing** to better reflect the current levels of demand and supply.

However, when making short-term revisions to price, it is important that an organisation also considers any potential longer-term implications for the brand, or the relationship between demand, costs and profits.

Context example: McDonald's in China

In February 2009, McDonald's lowered the price of four of its meals in China by up to one-third. The price of the Filet-o-Fish, double cheeseburger, chicken fillet sandwich and pork burger meals was reduced to 16.50 yuan (or $2.40).

McDonald's said that the price reduction follows the Chinese Government's direction to stimulate domestic demand and help build a stronger economy, in the light of concerns about the impact which the global economic slowdown was having on China.

McDonald's felt that it could do its part by stimulating domestic demand in the restaurant sector. However, McDonald's was not the only food retailer to have lowered prices in China.

Others, like KFC, had also started promotions as consumers in China began to worry about slowing growth and rising unemployment.

Only a year earlier, the prices of staple items like pork, rice and cooking oil were soaring, lifting inflation and threatening to overheat the Chinese economy which had recorded double-digit growth for a number of years. Once growth started to slow, the pressure shifted to retailers to entice shoppers with special deals.

However, China remains an attractive location because of the size of the market and because its growth rates are still ahead of most of the rest of the world. Therefore, McDonald's price cut was also influenced by its plans to expand in the country, which was one of its fastest-growing markets.

McDonald's had 1,050 outlets in China at the start of 2009, but by 2014 this figure had increased to over 2,000.

In this respect, McDonald's had been a beneficiary of the global economic downturn, as shoppers around the world switched to lower-priced goods.

2.7 Budgets

Budgets should provide an organisation with short-term targets within the framework of longer-term strategic plans. Budgets represent the short-term targets which need to be achieved in order to fulfil strategic objectives.

Budgets also provide a mechanism for **controlling performance** as they provide a yardstick against which to assess performance. This means finding out why actual performance did not go according to plan, and then seeking ways to improve performance for the future.

Budgets enable managers to manage by exception; that is, focus on areas where things are not going to plan (ie, the exceptions). This is done by comparing the actual performance to the budgets to identify the **variances**.

However, the reason a budget is not achieved may sometimes be because the budget itself was unrealistic. If this is the case, the budget may need to be revised. Only realistic budgets can form a credible basis for control.

2.8 Variance analysis

When actual performance is compared to standards and budgeted amounts, there will inevitably be **variances**. They may be favourable or adverse depending on whether they result in an increase to, or a decrease from, the budgeted profit figure.

2.8.1 Sales variances

Sales volume variance is the difference between the original and flexed budget profit figures. This is an important variance because losing sales generally means losing profit as well. If it has the effect of making profit lower than budgeted it is **adverse** and if it makes profit higher than budgeted it is **favourable**.

Sales price variance is the difference between actual sales revenue and actual volume at the standard sales price. Higher sales prices (if all else remains constant) mean an increase in profit.

2.8.2 Materials variances

Total direct materials variance is the difference between the actual and direct materials cost and the direct materials cost according to the flexed budget. If the actual material cost is higher than budget, it has an adverse effect on profit.

Direct materials usage variance is the difference between actual usage and budgeted usage for the actual volume of output, multiplied by the standard materials cost. If actual usage is higher than budgeted usage, there will be an adverse effect on profit.

Direct materials price variance is the difference between actual materials cost and the actual usage multiplied by the standard materials cost. Again, if actual costs are higher than those budgeted, there will be an adverse effect on profit.

2.8.3 Labour variances

Total direct labour variance is the difference between the actual direct labour cost and the direct labour cost according to the flexed budget. If more is spent on labour than was budgeted, there will be an adverse effect on profit.

Direct labour efficiency variance is the difference between the actual labour time and budgeted time, for the actual volume of output, multiplied by the standard labour rate. It looks at the actual versus the budgeted number of hours used to produce the output. If actual time is greater than budgeted time, the effect on the profit will be adverse. The faster people work, the more profit can be made.

Direct labour rate variance is the difference between the actual labour cost and the actual labour time multiplied by the standard labour rate. This means it compares the actual cost of the hours worked against the anticipated cost based on a standard hour. Where actual costs exceed the standard, profit will be adversely affected.

2.8.4 Fixed overhead variances

Fixed overhead spending variance is the difference between the actual and budgeted spending on fixed overheads. Higher than budgeted overheads lead to less profit and have an adverse effect.

Worked example: Flexible budgets and budgetary control

Penny manufactures a single product, the Darcy. Budgeted results and actual results for May are asfollows.

	B	C	D	E	F
		Budget	Actual	Variance	Adv/Fav
1	Production and sales of the Darcy (units)	7,500	8,200		
2		£	£	£	
3	Sales revenue	75,000	81,000	6,000	Fav [1]
4	Direct materials	22,500	23,500	1,000	Adv [2]
5	Direct labour	15,000	15,500	500	Adv

6	Production overhead	22,500	22,800	300	Adv
7	Administration overhead	10,000	11,000	1,000	Adv
8		70,000	72,800	2,800	Adv
9	Profit	5,000	8,200	3,200	Fav

[1] =IF(D3>C3,'Fav','Adv'). The formula can be copied into cells analysing income eg, F9.

[2] =IF(D4<C4,'Fav','Adv'). The formula can be copied into cells analysing costs eg, F5:F8.

Note: (Fav) denotes a favourable variance and (Adv) an unfavourable or adverse variance.

In this example, the variances are meaningless for the purposes of control. All costs were higher than budgeted but the volume of output was also higher; it is to be expected that actual variable costs would be greater than those included in the fixed budget. However, it is not possible to tell how much of the increase is due to **poor cost control** and how much is due to the **increase in activity**.

Similarly, it is not possible to tell how much of the increase in sales revenue is due to the increase in activity. Some of the difference may be due to a difference between budgeted and actual selling price but we are unable to tell from the analysis above.

For control purposes we need to know the answers to questions such as the following:

- Were actual costs higher than they should have been to produce and sell 8,200 Darcys?
- Was actual revenue satisfactory from the sale of 8,200 Darcys?

Instead of comparing actual results with a fixed budget which is based on a different level of activity to that actually achieved, the correct approach to budgetary control is to compare actual results with a budget which has been flexed to the actual activity level achieved.

Suppose that we have the following estimates of the behaviour of Penny's costs:

(1) Direct materials and direct labour are variable costs.
(2) Production overhead is a semi-variable cost, the budgeted cost for an activity level of 10,000 units being £25,000.
(3) Administration overhead is a fixed cost.
(4) Selling prices are constant at all levels of sales.

Solution

The budgetary control analysis should therefore be as follows.

	B	C	D	E	F	G
		Fixed Budget	Flex-ible bud-get	Actual	Variance	Adv/Fav
1	Production and sales ofthe Darcy (units)	7,500	8,200	8,200		
2		£		£	£	

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3	Sales revenue	75,000	82,000 [1]	81,000	1,000	Adv [2]
4	Direct materials	22,500	24,600 [3]	23,500	1,100	Fav [4]
5	Direct labour	15,000	16,400 [5]	15,500	900	Fav
6	Production overhead	22,50023	23,200 [6]	22,800	400	Fav
7	Administration overhead	10,000	10,000 [7]	11,000	1,000	Adv
8		70,000	74,200	72,800	1,400	Fav
9	Profit	5,000	7,800	8,200	400	Fav

[1] See Working (1)
[2] =IF(E3>D3,'Fav','Adv'). The formula can be copied into cells analysing income eg, G9.
[3] See Working (2)
[4] =IF(E4<D4,'Fav','Adv'). The formula can be copied into cells analysing costs eg, G5:G8.
[5] See Working (3)
[6] See Working (4)
[7] See Working (5)

WORKINGS

(1) Selling price per unit = £75,000/7,500 = £10 per unit Flexible budget sales revenue = £10 × 8,200 = £82,000

(2) Direct materials cost per unit = £22,500/7,500 = £3 Budget cost allowance = £3 × 8,200 = £24,600

(3) Direct labour cost per unit = £15,000/7,500 = £2 Budget cost allowance = £2 × 8,200 = £16,400

(4) Variable production overhead cost per unit = £(25,000 – 22,500)/(10,000 – 7,500)

= £2,500/2,500 = £1 per unit

∴ Fixed production overhead cost = £22,500 – (7,500 × £1) = £15,000

∴ Budget cost allowance = £15,000 + (8,200 × £1) = £23,200

(5) Administration overhead is a fixed cost and hence budget cost allowance = £10,000

Comment

(1) In selling 8,200 units, the expected profit should have been not the fixed budget profit of £5,000, but the flexible budget profit of £7,800. Instead, actual profit was £8,200 ie, £400 more than we should have expected.

One of the reasons for this improvement is that, given output and sales of 8,200 units, the cost of resources (material, labour etc) was £1,400 lower than expected.

These total cost variances can be analysed to reveal how much of the variance is due to lower resource prices and how much is due to efficient resource usage.

(2) However, the sales revenue was £1,000 less than expected because the price charged was lower than budgeted.

We know this because flexing the budget has eliminated the effect of changes in the volume sold, which is the only other factor that can affect sales revenue. You have probably already realised that this variance of £1,000 (A) is a **selling price variance**.

The lower selling price could have been caused by the increase in the volume sold (to sell the additional 700 units the selling price had to fall below £10 per unit). We do not know if this is the case but without flexing the budget we could not know that a different selling price to that budgeted had been charged. Our initial analysis above had appeared to indicate that sales revenue was ahead of budget.

The difference of £400 between the flexible budget profit of £7,800 at a production level of 8,200 units and the actual profit of £8,200 is due to the net effect of cost savings of £1,400 and lower than expected sales revenue (by £1,000).

The difference between the original budgeted profit of £5,000 and the actual profit of £8,200 is the total of the following:

(1) The savings in resource costs/lower than expected sales revenue (a net total of £400 as indicated by the difference between the flexible budget and the actual results).

(2) The effect of producing and selling 8,200 units instead of 7,500 units (a gain of £2,800 as indicated by the difference between the fixed budget and the flexible budget). This is the **sales volume contribution variance**.

A **full variance analysis statement** would be as follows:		
Fixed budget profit	£	£ 5,000
Variances Sales volume	2,800 (F)	
Selling price Direct materials cost Direct labour cost Production overhead cost	1,000 (A) 1,100 (F) 900 (F) 400 (F)	
Administration overhead cost	1,000 (A)	
		3,200 (F)
Actual profit		8,200

If management believes that any of the variances are large enough to justify it, they will investigate the reasons for their occurrence to see whether any corrective action is necessary.

2.8.5 Reasons for variances

Variances may occur for a number of reasons. One possible reason is that the budget itself was not realistic. Unless they are achievable, budgets are not a useful method of control. However, there are many other reasons why variances may arise, as shown by the table below.

Variance	Possible reason for variance
Sales volume	Poor performance by sales staff Deterioration in market conditions between the time the budget was set and the actual event Lack of goods or services to sell as a result of a production problem

Variance	Possible reason for variance
Sales price	Poor performance by sales staff Deterioration in market conditions between the time the budget was set and the actual event
Direct materials usage	Poor performance by production department staff, leading to high rates of scrap Substandard materials, leading to high rates of scrap Faulty machinery, causing high rates of scrap
Direct materials price	Poor performance by the buying department staff Using higher-quality material than was planned Change in market conditions between the time the budget was set and the actual event
Direct labour efficiency	Poor supervision A worker with a low skill grade taking longer to do the work than was envisaged for the correct skill grade Low-grade materials, leading to high levels of scrap and wasted labour time Problems with a customer for whom a service is being rendered Problems with machinery, leading to labour time wasted Dislocation of materials supply, leading to workers being unable to proceed with production
Direct labour rate	Poor performance by the human resources department Using a higher grade of worker than was planned Change in labour market conditions between the time of setting the budget and the actual event
Fixed overhead spending	Poor supervision of overheads General increase in costs of overheads not taken into account in the budget

Professional skills focus: Applying judgement

Variances may occur for a number of performance reasons but may also arise as a result of incomplete or inaccurate data. In order to make sense of variances you will need to draw inferences from further qualitative and quantitative analysis of the scenario information as well as taking into consideration any errors or omissions in the data used to prepare the calculations.

2.9 Limiting factors

Every organisation operates under resource **constraints**.

Usually, an organisation's output is restricted by the level of demand rather than the organisation's ability to produce.

However, sometimes there is a limit to the amount which can be produced due to a limiting factor within the organisation.

Examples of limiting factors are:

- a shortage of production capacity
- a limited number of key personnel, such as sales people with technical knowledge
- a restricted distribution network
- limited shelf space or display space (for a retailer)
- too few managers with knowledge about finance or overseas markets
- inadequate research design resources to develop new products or services
- a poor system of strategic intelligence
- lack of money
- a lack of adequately trained staff

Once the limiting factor has been identified, the planners should:

- in the short term, make best use of the resources available
- try to reduce the limitation in the long term

The most profitable combination of products will occur where the **contribution per unit of the scarce factor** is maximised.

When evaluating strategic plans, managers need to assess what the limiting factors (if any) are, and then assess whether the company is producing the combination of products which allows it to maximise its profits.

For example, if labour is scarce then the company's priority should be on producing the products which generate the highest profit per unit of labour.

Worked example: Scarce resources

A business makes three different products (A, B and C), as follows:

	A	B	C	D
1	Product	A	B	C
2	Selling price per unit (£)	25	20	23
3	Variable cost per unit (£)	10	8	12
4	Weekly demand (units)	25	20	30
5	Machine time per unit (hours)	4	3	4

Fixed costs are not affected by the choice of product because all three products use the same machine. Machine time is limited to 148 hours a week.

Requirement

Which combination of products should be manufactured if the business is to produce the highest profit?

Solution

	A	B	C	D
1	Product	A	B	C
2	Selling price per unit (£)	25	20	23
3	Variable cost per unit (£)	(10)	(8)	(12)
4	Contribution per unit (£)	**15**	**12**	**11**
5	Machine time per unit (hours)	4	3	4
6	Contribution per machine hour	£3.75	£4.00	£2.75
7	Order of priority	2 [1]	1	3
8	Production schedule:	HOURS		
9	20 units Product B	60		
10	22 units Product A	88		
11		148 [2]		

[1] =RANK (B6,$B$6:$D$6,0). The formula can be copied in C7:D7.

[2] =SUM (B9:B10)

Therefore produce:

This leaves unsatisfied the market demand for a further three units of product A and 30 units of product C.

Limiting factors could also be important in determining the feasibility of an organisation's strategy. If an organisation has a limited amount of labour available, the total amount of sales it can generate will be restricted by this labour. If the organisation is looking to grow, but isn't also looking to increase its staff levels, its strategy will not be feasible (unless it is able to prevent staff levels being a limiting factor in some other way – for example, by automating some processes which are currently carried out manually).

Limiting factors and make or buy decisions

The issue of limiting factors could also have implications on a decision about whether to make or buy. If a factor is scarce and is preventing growth, then buying additional units of that resource might be justified, even if a traditional make or buy decision would not otherwise justify it.

Limiting factors and capacity

The reference to limiting factors and capacity also highlights that organisations may need to adjust their capacity by some means. For example, if labour (or staff hours available) is the limiting factor, an organisation should consider how it can increase its labour capacity.

Overtime – The quickest and most convenient way of increasing capacity is to increase the number of hours worked by the existing staff, by offering them overtime payments to work additional hours.

However, this method is only useful if the timing of the extra capacity matches that of the demand. For example, there will be no benefit from asking retail staff to work longer hours in the evenings if the excess demand is occurring during normal daytime working hours.

Conversely, at a micro level an organisation might be able to solve capacity issues by building flexibility into **job design and job roles** so that staff could be transferred from less busy areas into the busiest areas for short periods of time. For example, because they found that peak times for registering new customers coincided with the least busy times in the kitchen and restaurant areas, the hotel chain Novotel trained some of its kitchen staff to also escort customers from the reception area up to their rooms.

Adjusting the size of the workforce – If capacity is largely governed by the size of the workforce, then one way to increase capacity is to take on extra staff in periods of high demand. These might often be temporary or part-time staff.

A variation on this approach could be to use **subcontractors**. **Demand management**

Instead of looking to resolve capacity issues through supply side solutions, it might also be possible

to address them through demand management activities.

Such an approach is popular among travel operators who offer cheaper holidays and flights at less busy times in order to try to stimulate off-peak demand and curtail peak demand.

2.10 Expected values

An **expected value** (or **EV**) is a weighted average value based on probabilities. The EV for a single event can offer a helpful guide for management decisions.

Although the outcome of a decision may not be certain, there is some likelihood that probabilities could be assigned to the various possible outcomes from an analysis of previous experience.

If the probability of an outcome of an event is p, then the expected number of times that this outcome will occur in n events (the EV) is equal to $n \times p$.

The concepts of probability and EV are vital in **business decision making**. The EVs for single events can offer a helpful guide for management decisions:

- A project with a positive EV should be accepted.
- A project with a negative EV should be rejected.
- When choosing between options, the alternative which has the **highest EV of profit** (or the **lowest EV of cost**) should be selected.

Where probabilities are assigned to different outcomes we can evaluate the worth of a decision as the **EV**, or weighted average, of these outcomes. The principle is that when there are a number of alternative decisions, each with a range of possible outcomes, the optimum decision will be the one which gives the highest EV.

EVs can be built into **decision trees** in order to aid decision making. The amount of expected profit is likely to be conditional on the result of various decisions.

However, remember the limitations of using EVs as a basis for decisions.

2.10.1 Limitations of EVs

Evaluating decisions by using EVs has a number of limitations.

(a) The **probabilities** used when calculating EVs are likely to be estimates. They may therefore be

unreliable or inaccurate.

(b) EVs are **long-term averages** and may not be suitable for use in situations involving one-off decisions. They may therefore be useful as a **guide** to decision making.

(c) EVs do not consider the **attitudes to risk** of the people involved in the decision-making process. They do not, therefore, take into account all the factors involved in the decision.

(d) The time value of money may not be taken into account: £100 now is worth more than £100 in 10 years' time.

2.11 Transfer pricing

You should have looked at issues around transfer pricing in Business Strategy and Technology, but it is important to remember that transfer pricing can have important strategic implications.

Sales and prices

Transfer prices can determine the overall price and sales of a product. Suppose Division A supplies an intermediary product to Division B for £12,000. Division B does additional work to the product (at a cost of £5,000) and the product's market price is set at a 15% mark-up on cost. If Division A transfers the intermediary product at cost, the final price will be £19,550, ie, (£12,000 +£5,000) × 1.15.

However, if Division A sets a transfer price of £15,000 for the intermediary product, the final price would be £23,000, ie, (15,000 + 5,000) × 1.15.

The difference in price is likely to have a significant effect on the volume of products sold, and therefore company profits.

Tax liabilities

If a multinational company has divisions in countries with different tax rates, the level at which transfer prices are set will influence the overall level of tax the company has to pay.

Dysfunctional decision making

Transfer pricing could lead to dys functional decision making.

In the illustration above, if Division A believes it can achieve a higher price by selling on the open market (rather than selling to Division B) it should take the open market price. However, this might mean that Division B does not have a product to sell if it cannot obtain the component elsewhere.

Equally, however, if Division B can obtain supplies of an equivalent product more cheaply from an external supplier than from Division A it should buy the product from the external supplier. However, this might leave Division A with unsold stock.

Transfer pricing and control

As a means of control, the main concern is reconciling the need for transfer prices to be set at an **appropriate level to assess performance** with the need for **goal congruence** within the organisation. Ideally, pricing levels should be set at a level to avoid the complications and loss of resources of departments dealing unnecessarily with external sources rather than with internal 'suppliers'.

Transfer pricing may also be a significant issue if one division of a company makes an

investment that benefits all the other divisions.

A **transactions cost approach**, taking into account costs associated with setting and administering the transfer price and also time commitments and obligations, is an appropriate way to determine which transactions should take place within an organisation and which transactions should occur in the outside world.

Transfer pricing and multinational companies

More generally, transfer pricing could be an important issue for multinational companies, and we will look at international transfer pricing in more detail in the chapter 'International financial management' of this Workbook.

2.12 Balanced scorecard

We have already discussed the balanced scorecard in the chapter Performance management of this Workbook.

The **scorecard** was devised as a way of integrating the traditional financial indicators with **non-** financial **measures**, such as operational performance quality, customer satisfaction and staff potential. It is balanced in the sense that managers are required to think in terms of all four perspectives in order to prevent improvements being made in one area at the expense of another.

The aspects of the balanced scorecard can be as effective as financial **measures (as indicators of long-term profitability)**, control mechanisms, business trends or benchmarks against other organisations. They can act as **targets** for employees, and will be more effective if linked to the organisation's reward schemes. The range of perspectives they provide can be a **better link** with strategy than a few financial measures.

Perspective	Addresses	Examples
Customer	Measures relating to what actually matters to customers (time, quality, performance of product)	Customer complaints On-time deliveries
Internal business	Measures relating to the business processes that have the greatest impact on customer satisfaction (quality, employee skills)	Average set-up time Quality control rejects
Innovation and learning	Measures to assess the organisation's capacity to maintain its competitive position through the acquisition of new skills/ development of new products	Labour turnover rate % of revenue generated by new products
Financial	Measures that consider the organisation from the shareholders' viewpoint	Return on capital employed Earnings per share

2.13 Information on sustainability

Increasingly, organisations need to manage and report on their sustainability performance. Information on sustainability will be required at the strategic level so the board and stakeholders are aware of the organisation's overall performance and can report these to stakeholders. Metrics used for ESG reporting were discussed in the chapters Strategic performance management and Data analysis. Information is also needed to assist management in managing the risks related to sustainability and ESG issues. Risk management, including risks related to ESG, was discussed in chapter Business risk management.

At the tactical and operational levels of the organisation, it will be necessary to set targets and measure performance, to ensure that the strategic goals are achieved. Examples of tactical and operational measures include greenhouse gas emissions at local level, headcount information, and surveys on staff satisfaction and information about breaches of ethical codes.

A big problem with sustainability information is that many organisations' information systems do not capture relevant data

Context example: Accenture survey

According to Accenture: 'In our ESG Measurement Study, only 26% of surveyed finance leaders could agree that they had clear, reliable data to underpin their ESG KPIs. But there seems to be a clear reason for this: most companies have not yet extended their measurement capabilities and infrastructure to ESG data. In less than one third of cases (31%), ESG reporting is fully embedded in core operational and management systems, with just under 70% still claiming that manual or semi- automated processes were used.'

Source: Accenture (2022) *Measuring sustainability. Creating value, Time to rethink performance and redefine success* [Online] available from https://www.accenture.com/_acnmedia/PDF- 179/Accenture-Sustainability-Measurement-Report.pdf#zoom=40 [Accessed 18 July 2022]

The use of manual or semi-automated processes to process ESG-related data causes a risk of inaccurate processing, which can lead to errors in the reported metrics. At an operational and tactical level, this may mean that incorrect decisions are made, or control processes are not activated when they should be. At the reporting level, this can lead to inaccurate reporting to stakeholders.

An additional challenge related to ESG data is scarcity of staff with the knowledge and skills to collate and analyse the data on ESG issues.

3 Management information systems (MISs)

Section overview

- There are many different types of MIS available according to the level of information required. These range from operational systems (such as transaction-processing systems, which process large volumes of data from routine transactions) to strategic-level systems (such as EISs, whose focus is on identifying high-level issues and long-term trends).
- If the information that senior managers obtain from EISs enables them to respond to opportunities and threats more quickly than their competitors, this could be a source of competitive advantage for an organisation.
- An organisation's critical success factors should help determine its information requirements, because an organisation needs to know how well it is performing in relation to its key operational goals.

In the chapter 'Strategic performance management' of this Workbook, we noted the idea of a hierarchy of decision making within organisations, meaning that information is required for planning and control at strategic, tactical (management) and operational levels.

The existence of this hierarchy means that different types of MIS are required to provide the different types of information required at the different levels – although the higher level (strategic and tactical) applications, to some extent, still make use of data which has been produced by operational systems.

In the chapter Data analysis, and in section 1 of this chapter, we have also highlighted the potential importance of big data as a source of new insights and performance information. One of the important characteristics of big data analytics is that managers may no longer be confined to analysing individual data sets, but instead data from a number of different sources can all be linked.

Therefore, although we are looking at specific systems in this section, it is also important to remember that in practice, data could come from a variety of different sources; for example, external data showing customers' reactions to a new product could be very useful when updating an organisation's forecasts or budgets. Equally, however, as we noted in the chapter Data analysis and section 1.6.3 of this chapter, data analytics techniques are not only used in relation to big data.

Organisations can still use data analytics to identify trends and gain insight from internal data (such as accounting information).

3.1 Information systems

In chapter Strategic performance management, we also mentioned some of the types of information systems which firms can use to provide them with information about their performance and their processes:

- Executive Information Systems (EISs)
- Management Information Systems (MISs)
- Decision Support Systems (DSSs)

Different types of system are typically used to provide different levels of information (strategic, tactical or operational) for different user groups in an organisation. However, as Laudon and Laudon note (in their text *Management Information Systems*), although different systems serve different management groups in a business, all of them 'provide business intelligence that helps managers… make more informed decisions'.

3.1.1 Operational level

Definition

Transaction processing systems: A transaction processing system (TPS) performs and records the daily, routine transactions necessary to conduct business – for example, sales order entry and hotel reservations.

TPSs provide operational level data. Operational managers need systems which keep track of the everyday activities and transactions in an organisation, such as sales, receipts, payroll, and the flow of materials in and out of inventory. The principal purpose of TPSs is to provide answers to routine questions (for example, how many units of a product are in stock?) and to track the flow of transactions through an organisation (for example, what has happened to a supplier's payment?).

However, TPSs are often vital for the successful running of a business. For example, how would airline companies operate without their computerised reservation systems, and how would supermarkets operate without their computerised EPoS tills?

3.1.2 Tactical level

Management information systems (MISs) provide middle managers with reports on an organisation's current and historical performance. MISs summarise data from TPSs and enable it to be presented in reports which can be used to monitor and control the business. Typically, MISs provide answers to routine questions which have been specified in advance and which have a predefined procedure for answering them. For example, MIS reports could be used to compare monthly sales figures for different products to planned targets. MISs have the following:

- support **structured** decisions at operational and management control levels
- designed to report on **existing** operations
- have little analytical capability
- relatively **inflexible**
- have an **internal** focus

By contrast to MISs, **decision support systems (DSSs)** can be used for less routine decision making. They focus on problems which are unique or rapidly change, and which may not have a predefined procedure for finding their solution. For example, DSSs might be used to assess the impact on production schedules if sales were double for a month.

Although DSSs use internal information from TPSs and MISs, they often also incorporate information from external sources, such as competitors' product prices.

DSSs have more analytical power than other systems, enabling them to analyse and condense large volumes of data into a form that helps managers make decisions. The objective is to allow the manager to consider a number of **alternatives** and evaluate them under a variety of potential conditions.

3.1.3 Strategic level

Senior managers need information systems which address strategic issues and long-term trends, both within an organisation and in the external environment. They are concerned with questions such

as where does our organisation fit in the industry? What new products should we be offering? What new acquisitions would help protect us from cyclical business swings?

EISs XE 'Executive information system (EIS)' or executive support systems (ESSs) help senior managers make these decisions. ESSs incorporate **external data** (about industry trends, forecasts, or external events such as tax changes or the emergence of new competitors) as well as summarised **internal information** from MISs and DSSs.

An EIS is likely to have the following **features**:

- flexibility
- quick response time
- sophisticated data analysis and modelling tools

The outputs from ESSs are often presented as graphs or charts, and are increasingly presented in the form of **digital dashboards**.

Interactive question 6: Health club

KLL is a large health and fitness complex located in a capital city. Started seven years ago, the business has been profitable. The introduction of a much wider range of activities over the past few years has led to increased complexity of administration and difficulty in interpreting the rapidly growing basic data generated daily. This data remains largely unstructured and this in turn leads to uncertainty in decision making.
The present MIS is able to produce monthly reports on the performance overall but can

only break down the key indicators of revenue and gross profit into six broad categories: water sports, sports hall activities, fitness training, beauty treatments, squash courts and outdoor sports. Thus there is no detail on specific activities such as table tennis, sauna room, badminton and soccer.

The Managing Director and the board cannot distinguish the profitable activities from the unprofitable ones. The Managing Director tells the board, 'We must have a management information system that can cope with our complex business; there are so many variables it is becoming impossible to make decisions with confidence. Sometimes we have detail we cannot interpret and sometimes we simply do not have enough good information.' The Finance Director points out that 'the staff are doing their best but they have limited technical knowledge and the software support company is often slow to help'.

The board have recognised that it is important to build an MIS to serve the company well into the future, and are currently reviewing various proposals for new systems.

Requirement

Prepare a memorandum to the board explaining the main purposes of a new MIS and the benefits the company could expect such a system to bring.

See **Answer** at the end of this chapter.

3.2 Enterprise applications

One of the key issues facing an organisation and its managers is the question of how to manage all the information in the different systems within the organisation. In particular, if the organisation has a number of different operating systems, how can these systems share information and how can work or activities be coordinated?

One solution is to implement enterprise applications – systems which span different functional areas and focus on executing business processes across the organisation.

There are four main enterprise applications:

- enterprise resource planning systems
- supply chain management systems
- CRM systems
- knowledge management systems

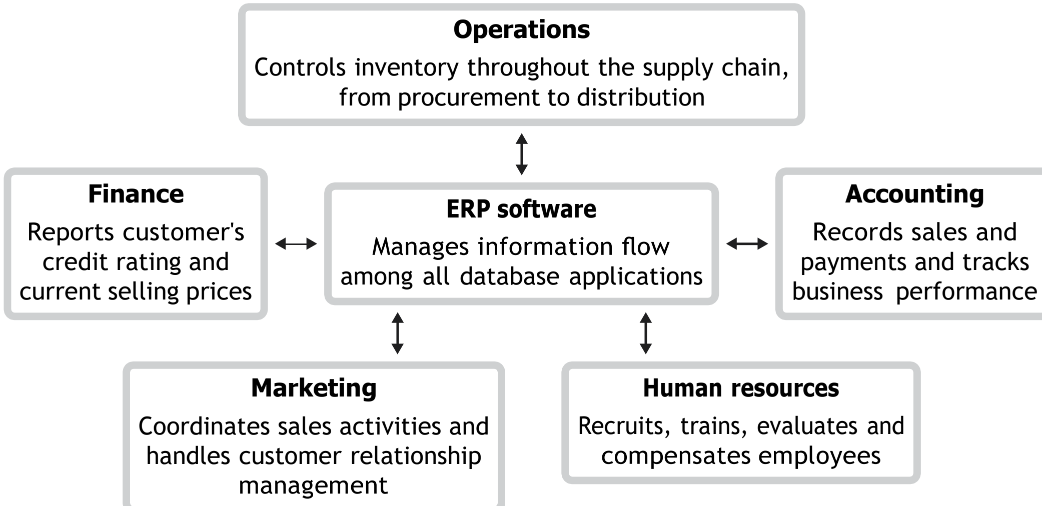
The presence of these integrated systems also serves as a reminder that management accounting information does not exist in isolation, but is part of the wider information system in an organisation.

3.2.1 Enterprise resource planning systems

Enterprise resource planning systems (ERPSs) are software systems designed to support and automate the business processes of medium-sized and large enterprises. ERPSs are accounting- orientated information systems which aid in identifying and planning the enterprise-wide resources needed to schedule, make, account for and deliver customer orders. They facilitate the flow of information between all business functions within an organisation, and they manage connections to outside stakeholders (such as suppliers).

ERPSs handle many aspects of operations, including **manufacturing, distribution, inventory, invoicing** and **accounting**. They also cover support functions such as **human resource management** and **marketing**. **Supply chain management** software can provide links with **suppliers** and CRM can help build relationships with **customers**.

Figure 9.1: Integration of information systems in an enterprise resource planning system (ERPS)



ERPSs thus operate **over the whole organisation** and **across functions**. All departments that are involved in operations or production are **integrated** into one system. In this way, adopting ERPSs makes firms more agile in the way they use information, meaning they can process that information better and integrate it into business procedures and decision making more effectively.

Some ERPS software is custom-built, and ERPS software is now often written for organisations in particular industries. ERPSs can be configured for organisations' needs and software adapted for circumstances. The data is made available in data warehouses, which can be used to produce customised reports containing data that is consistent across applications. Data warehouses can also **support performance measures**, such as the balanced scorecard, and strategic planning.

ERPSs should result in **lower costs** (for example, through workforce analytics and workforce redeployment) and lower **investment required** in assets. ERPSs should increase flexibility and **efficiency of production**, for example by coordinating procurement and logistics functions. They should also increase **customer to cash processes**, and thereby improve control of cash flow.

Their disadvantages include cost, implementation time and lack of scope for adaptation to the demands of specific businesses. Also, a **problem** with one function can affect all the other functions. ERPSs linked in with supply chains can similarly be vulnerable to problems with any links in the chain, and switching costs may be high. The blurring of boundaries can also cause accountability problems.

Context example: Enterprise Systems

(a) ERPSs

Case study

Laudon and Laudon (in Management Information Systems) offer the following illustration to show how organisations can benefit from enterprise systems.

Imagine a company has 10 different major product lines, each produced in separate factories and each with separate, and incompatible, sets of systems controlling production, warehousing and distribution.

As a result, it will be difficult for managers to understand what is happening in the business as a whole, and it is likely that their decision making could be based on manual hard-copy reports, many of which will be out of date.

At the time they place an order, sales personnel might not know whether the items being ordered are in stock, and manufacturing staff will not easily be able to use sales data to plan for new production.

The company could benefit from an ERPS which collects data from the different product lines and factories, as well as from a number of key business processes – not just in manufacturing and production (including inventory management) but also in sales and marketing, finance and accounting, and human resources.

The benefit of such an integrated system is that when new information is entered by one process, such information is immediately made available to other business processes.

For example, imagine if the company makes automobile components. If a sales representative places an order for tyre rims on behalf of a customer, the system verifies the customer's credit limit, schedules shipment of the parts to the customer, and reserves the necessary items from inventory. If inventory stock is not sufficient to fulfil the order, the system schedules the manufacture of more rims, and orders any material or components needed from suppliers. Sales and production forecasts are immediately updated to reflect the customer order. General ledger and cash levels are automatically updated with the revenue and cost information from the order.

Users across the company could log into the system and find out the status of the order at any time. Additionally, management could obtain information at any point in time about how the business was operating. The system could also generate company-wide data for management analyses for product cost and profitability.

(b) Supply chain management

Supply chain management systems can have similar benefits for organisations.

Laudon and Laudon highlight the example of the high-end bicycle manufacturer Cannondale.

Cannondale has supply and distribution chains which span the globe, and Cannondale offers its customers the option of 'made to order' models of bicycle. As a result, Cannondale has to manage over 200,000 individual parts, some of which have to be ordered from speciality vendors.

Managing the availability of parts in a constantly changing product line affected by volatile customer demand requires a great deal of manufacturing flexibility.

However, historically, Cannondale's material requirements planning system did not give it the flexibility it needed. The company's legacy material requirements planning system for planning production and controlling inventory could only produce reports on a weekly basis, meaning that the company was forced to substitute parts to meet demand, and sometimes lost sales as a result of these substitutions.

To overcome this issue, Cannondale purchased a new supply chain software system which collates data from operations at multiple sites and provides detailed, accurate, up to date information via an easy to use interface.

In addition, supply chain participants from different locations are able to model manufacturing and inventory data in 'what if' scenarios to see the impact of changes in demand across the entire supply chain.

The improved information from the new system enabled Cannondale to respond to customer orders much more rapidly with lower levels of inventory and without the need to hold extra 'safety stock' just in case it was needed.

Moreover, the lead times for producing bicycles have been reduced, and Cannondale's dates for promising deliveries have become more reliable and accurate.

3.2.2 Financial statement information

So far in this chapter, we have concentrated on the hierarchy of data and information in the context of MISs – for example, in the way that MISs summarise data from TPSs so that it can be presented in reports which can be used to monitor and control an organisation.

However, the data from TPSs not only feeds into management information and management accounts; it also forms the basis for the organisation's financial statements. For example, the sales figures from a retailer's shop tills will ultimately feed into the revenue figures in its financial statements.

Therefore, while an organisation needs to be able to capture and summarise transactions data accurately in order that managers can make informed decisions and control the business effectively, it equally needs accurate data to populate its financial statements.

This not only highlights the inherent links between management accounting information and financial accounting information; it also reinforces the importance of the internal controls in organisations over their TPSs to ensure that the data collected in them is accurate and reliable.

3.4 Sources of information

On several occasions in this chapter we have noted that different levels of decision may require data or information from either internal or external sources.

If an organisation is not able to capture reliable and accurate raw data then, even if it has sophisticated information systems, its managers will not have the quality of information they need to make informed decisions.

3.4.1 Internal information

Capturing data and information from **inside** the organisation involves designing a system for collecting or measuring data and information which sets out procedures for:

- what data and information is collected
- by whom
- how frequently
- by what methods
- how data and information is processed, filed and communicated

The accounting ledgers provide an excellent source of information regarding what has happened in the past. This information may be used as a basis for predicting future events.

TPSs and enterprise systems can also be sources of internal information, such as EPoS tills in retail stores.

Equally, sales teams deal with customers and so are in a good position to obtain information about customers and competitors.

Many companies also conduct market research. Although this generally deals with specific issues, it can indicate general environmental concerns (eg, consumers' worries).

Context example: EPoS Systems

Virtually all major retail stores now use electronic point of sales (EPoS) systems, which give them a fast and convenient way of transacting sales, while also recording vital business information.

At the most basic level, EPoS systems total up a customer's bill, calculate any change due and issue receipts in the same way that cash tills have historically done.

However, EPoS systems can keep track of inventory levels and can also record customer information. This ability to manage inventory and promote customer relationship management (CRM) helps EPoS systems improve a retailer's performance.

For example, by keeping track of the products sold, an EPoS system can assist inventory management by ensuring that the retailer has adequate supplies of a product to meet demand, and reorders top performing products as necessary. However, the system could also highlight which product lines are not selling very well, such that the retailer may question whether it wants to continue selling them, or whether it discounts their price to try to encourage demand.

Equally, if management wants to change the price of an item or run a special offer on it, this can be done very easily with an EPoS system. Importantly, from a performance measurement perspective, the system can also record data on how price changes have affected sales.

The data from EPoS systems can be used for marketing purposes, particularly when used in conjunction with store loyalty cards (such as Tesco's Clubcard). The systems can record trends and patterns in individual customers' behaviour, and in doing so they can provide valuable data for personalised marketing campaigns.

3.4.2 External information

Sources of information from outside sources include the following:

(a) **Media.** Newspapers, periodicals and television offer environmental information.

(b) Sometimes more detailed country information is needed than that supplied by the press. **Export consultants** might specialise in dealing with particular countries, and so can be a valuable source of information. The **Economist Intelligence Unit** offers reports into particular countries.

(c) Academic or **trade journals** might give information about a wide variety of relevant issues to a particular industry.

(d) **Trade associations** also offer industry information.

(e) Consultancy firms or analysts (eg ,Mintel) can also provide industry reports, or reports about different market sectors.

(f) The Government can be a source of statistical data relating to employment and unemployment levels, wage rates, overseas trade (including the balance of trade) and so forth, which is often summarised in newspapers. Official statistical sources also include government censuses, and demographic and expenditure surveys.

(g) Sources of technological environmental information can include the national patents office (because patents for new products are registered with the patent office).

(h) Stockbrokers produce investment reports for their clients which involve analysis into particular industries.

(i) The **internet** (for example, 'current awareness services' where subscribers can register particular key words related to their industry with media vendors and then receive automatic emails of articles and announcements that include those key words as tags). The websites of rival firms may also give an insight into their mission, objectives, strategy and financial performance.

(j) **Big data.** The growth of **social media** and the rise of the 'internet of things' have dramatically increased the amount of 'big data' which is available to organisations – as we discussed in the chapter Data analysis.

(k) **Annual reports** of competitors, suppliers or firms in a potential target market can also provide useful information.

3.5 Strategic management accounting and external information

We discussed strategic management accounting briefly in the chapter Strategic performance management of this Workbook.

Two of the key features of strategic management accounting are the importance it places on **external information** and on **non-financial information** in addition to internally generated financial information.

This external orientation highlights the extent to which customers, competitors and the external environment, as well as the actions of the organisation itself, affect an organisation's performance. So, for example, whereas a traditional management accountant would report on an organisation's own revenues, the strategic management would report on **market share** or trends in market size and growth.

(a) **Competitive advantage is relative**. Understanding competitors is therefore of prime importance.

For example, knowledge of competitors' costs as well as a firm's own costs could help inform strategic choices; a firm would be unwise to pursue a cost leadership strategy without first analysing its costs in relation to the cost structures of other firms in the industry.

This also highlights the importance of **benchmarking** – comparing performance to competitors.

(b) **Customers** determine if a firm has competitive advantage.

Some **examples** of strategic management accounting issues are provided below.

Item	Comment
Competitors' costs	What are they? How do they compare with ours? Can we beat them? Are competitors vulnerable because of their cost structure?
Financial effect of competitor response	Have sales fallen?
Product profitability	A firm should want to know not just what profits or losses are being made by each of its products, but also why one product should be making good profits while another equally good product might be making a loss.
Customer profitability	Some customers or groups of customers are worth more than others.
Pricing decisions	Accounting information can help to analyse how profits and cash flows will vary according to price and prospective demand.

Value of market share	A firm ought to be aware of what it is worth to increase the market share of one of its products.
Capacity expansion	Should the firm expand its capacity and, if so, by how much? Should the firm diversify into a new area of operations, or a new market?
Brand values	How much is it worth investing in a 'brand' which customers will choose over competitors' brands?
Shareholder wealth	Future profitability determines the value of a business.
Cash flow	A loss-making company can survive if it has adequate cash resources, but a profitable company cannot survive unless it has sufficient liquidity.

3.6 Linking strategic and operational information

One of the key challenges that organisations face is linking their (long-term) strategy to their day to day operations. For example, a strategic plan might set revenue growth targets for an organisation over the next five years, but the operational plan will need to consider what practical steps will be taken to generate these revenue increases, in effect creating a road map that defines the detail of how the overall strategies are going to be put into action. (We looked at the idea of strategy maps as an aid to implementing the balanced scorecard, in the chapter Strategic performance management.)

One of the underlying aims of multi-dimensional performance measurement systems, such as the balanced scorecard, is to help organisations align their operational objectives and initiatives with their overall corporate strategy and goals – to help them achieve those goals.

Importantly, however, an organisation needs to have systems in place to be able to capture the information it needs to assess how well it is performing.

As the context of strategic management accounting highlights, this performance information is likely to include non-financial performance, and could also include external elements (such as competitor performance and market growth) as well as information about the organisation's own financial performance.

3.7 Critical success factors (CSFs) and information requirements

The use of **critical success factors (CSFs)** can help to determine the information requirements of an organisation.

CSFs are a small number of key **operational goals** vital to the success of an organisation. If these operational goals are achieved, the organisation should be successful. CSFs are **measured** by KPIs. The CSF approach is sometimes referred to as the **strategic analysis** approach. The philosophy behind this approach is that managers should focus on a small number of objectives, and information systems should be focused on providing information to enable managers to monitor these objectives.

Two separate types of CSF can be identified:

(a) **Monitoring** CSFs are important for **maintaining** business. A **monitoring** CSF is used to keep abreast of existing activities and operations.

(b) **Building** CSFs are important for **expanding** business. A **building** CSF helps to measure the progress of new initiatives and is more likely to be relevant at senior executive level.

One approach to **determining the factors** which are critical to success in performing a function or making a decision is as follows:

- List the organisation's corporate objectives and goals
- Determine which factors are critical for accomplishing the objectives
- determine a small number of **KPIs** for each factor

Note that most KPIs will be quantitative. It is quite possible that CSFs will be quantitative as well.

One of the **objectives** of an organisation might be to maintain a high level of service direct from inventory without holding uneconomical inventory levels. This is first quantified in the form of a **goal**, which might be to ensure that 95% of orders for goods can be satisfied directly from inventory, while minimising total inventory holding costs and inventory levels.

CSFs might then be identified as the following:

- **supplier performance** in terms of quality and lead times
- Reliability of **inventory records**
- **forecasting** of demand variations

Deciding on the **KPIs** for each of these CSFs is not necessarily straightforward. Some measures might use **factual**, objectively verifiable data, while others might make use of **'softer' concepts** such as opinions, perceptions and hunches.

For example, the reliability of inventory records can be measured by means of physical inventory counts, either at discrete intervals or on a rolling basis. Forecasting of demand variations will be much harder to measure.

Where measures use quantitative data, performance can be measured in a number of ways:

- In **physical quantities**, for example units produced or units sold
- In **money terms**, for example profit, revenues, costs or variances
- in **ratios** and **percentages**

Sequence	Explanation	Example (1) UK National Health Service	Example (2) Mobile phone operator
Organisational goal	Overall strategy	Improve healthcare	Increase sales by entering new markets
CSFs	Operational goal: must be achieved for the overall strategy to be on track	Measurable reduction in time between booking an operation and receiving it	Establish network coverage in two countries in a year's time
KPIs	Data sharing performance on CSF	For example % of patients seen after waiting: less than one month less than three months less than six months more than six months	% of country covered and date, reported monthly

Critical information requirements	Information requirements to generate KPI	Booking and operations data to enable accurate KPI to be compiled	Information about masts installed

3.7.1 Data sources for CSFs

In broad terms, we can identify four **general sources** of CSFs (based on Rockart's work in this area in the 1970s and 1980s).

(a) The **industry** that the business is in. For example, in the supermarket industry, having the right product mix available in each store, and having products actually available on the shelves for customers to buy, will be prerequisites for an organisation's success, regardless of the detailed strategy it is pursuing.

(b) The **company** itself and its situation within the industry (eg, market leader or small company; competitive strategy; geographical location).

(c) The **external environment**, for example consumer trends, the economy, and political factors of the country in which the company operates (PEST factors).

(d) Temporary organisational factors, which are **areas of corporate activity** that are **currently unacceptable** and represent a cause of concern, such as high inventory levels. New laws or regulations could also be seen as temporary factors: eg, if a regulator has recently fined a financial services company for mis-selling its products, then a possible CSF for the company would be: to ensure that similar mis-selling does not occur again in the near future.

More specifically, possible internal and external data sources for CSFs include the following:

(a) **The existing system**. The existing system can be used to generate reports showing **failures to meet CSFs**.

(b) **Customer service department**. This department will maintain details of **complaints** received, **refunds** handled, **customer enquiries** etc. These should be reviewed to ensure all failure types have been identified.

(c) **Customers**. A survey of customers, provided that it is properly designed and introduced, would reveal (or confirm) those areas where **satisfaction** is high or low.

(d) **Competitors**. Competitors' operations, pricing structures and publicity should be closely monitored.

(e) **Accounting system**. The **profitability** of various aspects of the operation is probably a key factor in any review of CSFs.

(f) **Consultants**. A specialist consultancy might be able to perform a detailed review of the system in order to identify ways of satisfying CSFs.

3.8 MISs and competitive advantage

In section 2 of this chapter we noted that managers need information to make effective decisions and to control the activities of their organisation.

MISs have a critical role in providing them with this information. As such, the main purpose of MISs is to provide the right information, to the right people, at the right time.

In this respect, we can identify the following key benefits from MISs:

(a) **Implementation of management by objectives**: MISs allow management and staff to view, analyse and interpret useful data to set goals and objectives, and then to assess performance against those objectives.

(b) **Identify strengths and weaknesses**: Performance reports (for example, revenue reports, cost and productivity reports) can help managers identify strengths and weaknesses within an organisation, and consequently also improve its **business processes** and **operations**.

(c) **Generate competitive advantage**: If implemented properly, MISs can provide a wealth of information to allow management to construct effective plans to enable their organisations to outperform their competitors – for example, by enabling an organisation to produce products more quickly or more cheaply than rival firms.

Similarly, using customer data effectively can help an organisation align its products and its business processes to the needs of its customers. The effective management of customer data can also help an organisation with the segmentation and targeting aspects of its strategic marketing (which we discussed in the chapter Strategic marketing and brand management).

(d) **Fast reaction to market changes**: As the environment in which organisations operate becomes increasingly complex and dynamic, the speed with which an organisation can respond to opportunities and threats in that environment could become a source of competitive advantage.

As such, this speed of response is a **dynamic capability** for the organisation (as discussed in chapter Strategic analysis). An organisation's potential to sense opportunities and threats, to make timely and market-orientated decisions in response to the changing environment, and to change its resource base accordingly can be a source of competitive advantage to it.

An organisation's MISs are likely to be crucial in providing an effective platform which enables it to make timely and informed decisions in response to environmental changes.

If there is a sudden change in customer tastes or trends, firms with higher timely decision making capacity can grasp the opportunities this presents more quickly than competitors. As such, the quicker the relevant information becomes available to management, and the faster the decision making process, the more likely the organisation is to grasp the opportunities to gain competitive advantage over its rivals.

In order for managers to be able to respond rapidly and appropriately to change in their external environment, however, they must be capable of collecting internal and external information, identifying key strategic issues and making strategic decisions in a timely manner.

In this respect, by providing access to various external databases, EISs enable senior managers to search and retrieve a large amount of external information about suppliers, customers, competitors, and regulatory bodies and other stakeholders in a timely manner.

EISs can also transform traditional management reporting systems in order to provide senior management with more non-financial performance information in critical areas of their organisations.

As such, the internal and external information which EISs can provide for senior managers can lead to improved productivity, improved decision making in terms of quicker identification of potential problems and opportunities and the more successful introduction of new products.

Some writers have also noted that the use of EISs, along with DSSs, helps strategic decision makers to generate and analyse a greater number of alternatives – thereby increasing the comprehensiveness of the decision making process.

4 The value of information

Section overview

In this section we look at the factors which make information valuable. We also briefly examine the potential trade-off between the cost of obtaining information and the benefit gained from having that information.

4.1 Factors that make information a valuable commodity

Information is now recognised as a valuable resource and a **key tool in the quest for a competitive advantage**.

Easy **access** to information, the **quality** of that information and **speedy methods of exchanging** the information have become essential elements of business success.

Organisations that make **good use of information** in decision making and which use new technologies to access, process and exchange information are likely to be **best placed to survive** in increasingly competitive world markets.

4.2 The value of obtaining information

In spite of its value in a general sense, information which is **obtained but not used** has no actual value to the person who obtains it. It is only the **action taken** as a result of a decision which realises actual

value for a company. An item of information that leads to an actual increase in profit of £90 is not worth having if it costs £100 to collect.

Businesses may also try to assess the costs of not having the information and also whether alternative (cheaper, more convenient) sources may be used instead.

4.3 Costs of information

Costs of information include the costs of system development and set-up, day to day running and storage costs.

Effective budgeting may be required to keep costs under control, particularly in the purchase of new equipment. An activity-based approach may be appropriate.

4.4 The value of information

There are a number of theoretical models which can be used to value information. However, most of them highlight the same factors in determining the value of information:

- The extent of uncertainty faced by decision makers
- The benefit of making the optimal decision compared to making a decision which is not optimal in the light of better information
- The cost of making use of the information and incorporating it into decisions

Importantly, information only has a value if alternative courses of action are available, and if these alternative courses of action will result in different results for an organisation. Information is most valuable for an organisation when many alternative courses of action are available but the costs associated with a 'wrong' action are high.

By contrast, if there are no alternative courses of action available or if a 'wrong' decision will not result in any net costs to an organisation, information relating to that decision has no value.

4.5 Cost-benefit analysis

In effect, we can evaluate the value of having better information in the context of a cost-benefit analysis.

Having relevant data and information available should improve the quality of decisions which are made, which in turn should improve an organisation's performance. However, there will also be a cost involved in capturing and analysing the data and information.

The critical question for an organisation is whether the benefits from having the information are greater than costs involved in obtaining that information.

4.4.1 The benefits of a proposed information system

In order to evaluate how the benefits of a proposed information system compare to the costs of the systems, an organisation needs to try to quantify the benefits in some way. Several factors need to be considered when trying to quantify the benefits.

Improved data collection, storage and analysis tools may indicate previously unknown opportunities for sales. Such tools may include software that allows relationships to be discovered between previously unrelated data.

New technology can be used to automate work which was previously manual. This saves staff time and may result in a smaller workforce being required.

Systems such as inventory control can benefit as losses from obsolescence and deterioration are reduced.

Computerised systems that create a more prompt and reliable service will increase customer satisfaction. In some cases it may be that providing decision makers with the most accurate and up to date information possible can have substantial benefits. The main areas of benefit are as follows:

(a) Models can be created to forecast sales trends and the likely effect on costs. Organisations that can make accurate forecasts are in a better position to plan their structure and finances to ensure long-term success.

(b) Organisations facing uncertain times, or those which operate in dynamic, evolving environments, need to make complex decisions (often quickly) to take advantage of opportunities or to avoid threats. Scenario planning models enable a wide range of variables to be changed (such as inflation rates and sales numbers), the overall effect on the business to be identified and a business plan to be constructed.

(c) Modelling can be extended into the market that the organisation operates in. Trends such as sales volumes, prices and demand can be analysed. Relationships between price and sales volume can be identified. These can be used by an organisation when deciding on a pricing strategy. Setting the best price for a product can help drive up sales and profitability.

(d) Organisations will benefit from improved decision making where systems can accurately evaluate a wide range of projects. Investment decisions often involve large capital outlays, and if the system prevents bad decisions it can prevent the organisation wasting large sums of money.

(e) Systems can also prevent an organisation agreeing 'bad' deals. Tenders for suppliers or other long-term contracts can prove costly if the wrong choice is made.

4.6 Strategic implications of information systems

When formulating an overall IT strategy the following aspects should be taken into consideration:

(a) What are the key business areas which could benefit most from an investment in IT, what form should the investment take, and how could strategically important units be encouraged to use such technology effectively?

(b) How much would the system cost in terms of software; hardware; management commitment and time; education and training; conversion; documentation; operational manning; and maintenance?

(c) The importance of lifetime application costs must be stressed – the costs and benefits after implementation may be more significant than the more obvious initial costs of installing an IT function.

(d) What criteria for performance should be set for IT systems? Two areas can be considered: the technical standard the information system achieves and the degree to which it meets the perceived and often changing needs of the user.

(e) What are the implications for the existing workforce – has it the requisite skills; can it be trained to use the systems; will there be any redundancies?

5 Evaluating management information and performance data

Section overview

- Information is only useful to managers or staff if it adds to their understanding of a situation.
- The characteristics of 'good' information can be summarised in the mnemonic 'ACCURATE': accurate, complete, cost-beneficial, user-targeted, relevant, authoritative, timely, and easy to use.

5.1 The objectives of management information

The objective of management accounting and management accounting systems is to provide information for managers to use for planning, control and performance measurement.

In order to evaluate how well the systems are providing this, managers need to assess whether the information available to them gives them what they need to know for planning, control and making decisions.

The management accountant's role is to provide managers with feedback information in the form of periodic reports – suitably analysed and at an appropriate level of detail – to determine whether the business is performing according to plan.

It may be the case that there is too much information available, or the information available is in a format unsuitable for managers to use. For instance, a production manager needs to know about

outputs and costs in their department but not primarily about marketing data nor even necessarily summarised data that would go into a board report. Information overload can sometimes be as much of a problem as having too little information.

Accounting information needs to be distilled in a manner that makes it clear and concise and does not overwhelm the user. In this context it is important to highlight that, while management accounting involves the process of transforming data about an organisation's performance into information that managers can use for many reasons, management accounting only produces good information if it is useful and relevant to its users.

5.1.1 Presenting performance information

A number of developments in output reporting from information systems have been driven by the need to provide timely and tailored information, and also to avoid swamping the user with too much information.

Dashboards

Increasingly, companies are looking at ways to reduce the number (and size) of paper reports, and to provide the necessary information to decision makers in an easy to read manner.

One of the ways to do this is by using 'Executive Dashboards' which show current data, pictures, graphs and tables to illustrate how a business is performing and to help managers make better decisions. For example, a coffee and baked goods chain has been looking to expand and is preparing to open a number of new stores. The chain managers use dashboards to see the status of the new stores. The dashboards display geographical areas and the new stores which are being developed. By clicking on an individual store, executives can see details of how the new stores are being constructed and if any are being delayed.

Historically, much of the criticism of information systems and reports has focused on the difficulties users have faced when trying to produce the reports they wanted from the systems available.

Reporting tools tended to be rigid and imposed many requirements about the way reports were produced. However, current reports offer more flexibility, and thereby allow managers to get the reports they actually need or want.

Drill-down reports

Dashboards are often also combined with drill-down reports. Drill-down reports enable users to look at increasingly detailed data about a situation. For example, the sales managers could first look at data for a high level (such as sales for the entire company) and then drill down to a more detailed level (such as sales for individual departments of the company) if he or she is concerned about sales performance. The manager should then also be able to drill down to a very detailed level, possibly to look at sales for an individual sales representative. In this way, the manager can dictate the level of detail and information presented and can avoid being overloaded with too much initial detail.

Exception reports

Another way of managing the amount of information being presented, and thereby **preventing information overload**, is through the use of exception reports. Exception reports are reports that are only triggered when a situation is unusual or requires management action. For example, the parameters could be set so that exception reports are generated for all capital projects which exceed budget by greater than £100,000.

However, the key to using exception reports successfully is setting the parameters carefully. The aim of an exception report is only to highlight the situations which require management action. If the parameters are set too low (for example, all capital projects which exceed budget by over £100) then the manager will end up looking at too many items. Conversely, if the parameters are set too high (for example, capital projects which exceed budget by over £10 million) then situations which should receive management attention will not do so.

Because the aim of exception reports is to highlight situations which require management attention or action, they are best used to monitor aspects of performance which are important to an organisation's success. In this respect, exception reports could be used to report against KPIs, or other aspects of an organisation's performance relating to its CSFs.

Finally, in relation to the outputs of information systems as a whole, **users need to get involved when scoping what they require from their information systems**. If an MIS has immense capacity but does not give users the data they need individually, then the system is making life harder for the user.

5.2 Qualities of good information

The qualities of good information – both financial and operational – are outlined in the following table. You can use the mnemonic 'ACCURATE' to help you remember the qualities of good information. 'ACCURATE' can also be used as a framework when describing how poor informationcan be improved.

5.2.1 Qualities of good information

Quality	Example
Accurate	Figures should add up, the degree of rounding should be appropriate, there should be no typing errors, items should be allocated to the correct category, and assumptions should be stated for uncertain information.
Complete	Information should include everything that it needs to include, such as external data if relevant, comparative information and qualitative information as well as quantitative. Sometimes managers or strategic planners will need to build on available information to produce a forecast using assumptions or extrapolations.
Cost-beneficial	It should not cost more to obtain the information than the benefit derived from having it. Providers of information should be given efficient means of collecting and analysing it. Presentation should be such that users do not waste time working out what it means.
User-targeted	The needs of the user should be borne in mind; for instance, senior managers need strategic summaries periodically, and operational managers need more detailed performance information.
Relevant	Information that is not needed for a decision should be omitted, no matter how 'interesting' it may be.
Authoritative	The source of the information should be a reliable one (not, for instance, 'Joe Bloggs Predictions Page' on the internet unless Joe Bloggs is known to be a reliable source for that type of information). However, subjective information (eg, expert opinions) may be required in addition to objective facts.
Timely	The information should be available when it is needed. It should also cover relevant time periods, the future as well as the past.

Easy to use	Information should be clearly presented, not excessively long, and sent using the right medium and communication channel (email, telephone, hard-copy report etc).

4.2.2 Improvements to information

As well as being able to identify the qualities of good information, you may need to identify the problems that an organisation has with the information it currently produces, and suggest potential ways that information can be improved.

The table below contains some suggestions as to how poor information can be **improved**.

Feature	Examples of possible improvements
Accurate	Use computerised systems with automatic input checks rather than manual systems. Allow sufficient time for collation and analysis of data if pinpoint accuracy is crucial. Incorporate elements of probability within projections so that the required response to different future scenarios can be assessed.
Complete	Include past data as a reference point for future projections. Include any planned developments, such as new products.
	Information about future demand would be more useful than information about past demand. Include external data.
Cost-beneficial	Always bear in mind whether the benefit of having the information is greater than the cost of obtaining it.
User-targeted	Information should be summarised and presented together with relevant ratios or percentages. Consider use of graphics or dashboards to summarise data for senior management.
Relevant	The purpose of the report should be defined. Avoid trying to fulfil too many purposes at once. Consider whether several shorter reports would be more effective. Information should include exception reporting, where only those items that are worthy of note – and the control actions taken by more junior managers to deal with them – are reported.
Authoritative	Use reliable sources and experienced personnel. If some figures are derived from other figures the method of derivation should be explained.
Timely	Information collection and analysis by production managers needs to be speeded up considerably, probably by the introduction of better information systems (possibly even systems that can provide real-time information).

Feature	Examples of possible improvements
Easy to use	Graphical presentation, allowing trends to be quickly assimilated and relevant action decided on. Alternative methods of presentation should be considered, such as graphs and charts, to make it easier to review the information at a glance. Numerical information is sometimes best summarised in narrative form or vice versa. A 'house style' for reports should be devised and adhered to by all. This would cover such matters as number of decimal places to use, table headings and labels, and paragraph numbering.

Professional skills focus: Concluding, recommending and communicating

The ability to draw conclusions by distinguishing between the qualities of data provided is one of the

professional skills tested in the ICAB exams. When formulating recommendations, it is important to recognise the limitations of the data you have been provided with and, where appropriate, you may wish to suggest alternative information sources to help strengthen your recommendations and suggested strategies.

5.3 Completeness, accuracy and credibility of data and information

Another key feature which affects the quality and usefulness of information is the extent to which it accurately reflects real-world objects or events. For example, if an organisation's sales in a period are known to have decreased (such as due to a new competitor launching) but management information shows sales increasing, the management information's accuracy and usefulness for decision making must be called into question.

There are a number of factors which could potentially lead to poor-quality data and information:

Business dynamics change: A company expands into new markets but figures for the new markets are not incorporated into standard reports; a company purchases another company and has to consolidate figures from different software applications.

System design changes: Over time the design of databases may change, such as when new fields are added. This will not prevent transactions being recorded accurately, but can affect management information. For example, it may mean that current information is no longer being compared to historical information on a like for like basis.

Weak control over application changes: Cost (or time) pressure may lead business units to create or modify local applications despite not fully understanding the IT systems or software involved. As a result, these locally modified applications may no longer follow the same standards as applications in the rest of an organisation. This could lead to problems in consolidating or comparing data from the different systems.

Lack of common data standards or metadata: If an organisation doesn't have a standardised way of recording data, inconsistencies could arise if different operators record similar transactions or data differently.

Legacy systems: As companies grow, they start building new systems with new system architectures. However, the way data is structured in these may be different to the way data is held in existing legacy systems. If the 'legacy' systems are not enhanced to bring them in line with the new systems, it will be difficult to manage data between the two systems.

Time decay: Over time, the quality of data will decrease unless that data is updated. For example, customers on a customer database may change address or marital status. If a company is not aware of these changes, then the value of its data for marketing purposes declines.

Data entry issues: In many systems, there will always be a risk of human error, but this can be reduced by well-designed entry forms. For example, the risk of data entry error can be reduced if there are controls that prevent a telephone number entry being posted with insufficient digits.

Context example: Retail IT systems

The 2013 report *Audit Insights: Retail* by ICAEW's Audit and Assurance Faculty highlights that IT systems in retail have historically been developed in-house, resulting in a diverse and often inefficient architecture.

Often, retailers have only invested in IT after their investments in stores had been completed, with the result that few retailers have integrated IT systems and control.

However, the move towards online retail has now provided greater impetus to develop IT systems, and has prompted many retailers to review their overall IT strategies.

The ICAEW report notes that in challenging economic conditions, many retailers may find it difficult to make significant capital investment in IT, despite the risks of making do with less developed systems. Some retailers are now replacing their customer-facing systems to allow for the 'full multichannel experience'. Others are making do with existing systems, delaying the need for costly investment in IT with the associated risks of migrating to a new system. However, the report warns that: 'This is likely to prove a false economy, as retailers which do not adapt and embrace the opportunities of the changing environment may struggle to stay competitive. Furthermore, a lack of access to robust data increases risk across the business.' For example, failure to invest in IT improvement may lead to security and reputation risk if commercially sensitive data is not kept secure and up to date. Equally, the retailers' ability to monitor customers' shopping habits and to understand their needs will be impeded by a lack of data monitoring and analytics capacity.

Crucially, without relevant and reliable data, retailers will not be able to fully understand what gives rise to profits across different channels. A better understanding of the factors which give rise to profits could help retailers make more efficient use of their resources and identify their most profitable products. In turn, this will help improve pricing strategies and target promotional activity to drive profitable growth.

Finally, strong internal data systems will help retailers track and value their inventory more accurately, enabling them to have more detailed control over how much of their working capital is tied up as inventory at any given time.

In this respect, the report notes: 'As customers increasingly look to the internet and other non- traditional sales channels, strong internal data systems will allow different aspects of the business to work together more effectively. This includes inventory management, supplier relationship management, and efficient processing of orders and payments.'

Issues of accountability and quality control might also be relevant when considering the quality of information and data:

Accountability – Are managers held accountable for making sure that procedures (controls) are in place to ensure the completeness and reliability of data, and for making sure that those procedures are followed?

Quality control – Are there any systems tests to check the consistency and accuracy of the outputs from automated systems and databases? Are unexpected results investigated?

A company's internal audit department could play an important role in providing assurance over these areas.

5.3.1 Audit data analytics

In addition to the role a company's internal audit department plays in providing assurance over the quality of its data and information, we should also recognise that data analytics also provides external auditors the opportunity to monitor large, complete data sets, rather than testing samples as they might historically have done. As such, audit data analytics could be used to help the auditor identify trends, correlations and deviations from expected outcomes, and/or potential risks in a client's data or control systems.

One of the other important features of data analytics is the capacity to show results graphically. So, for example, an auditor could use audit data analytics to analyse a client's gross margins and sales, split by product type or region, and the results could be illustrated on a dashboard, with different products being shown in different colours, to highlight unusual results. Moreover, the current year figures could also be compared with prior years to gain a deeper understanding of any outliers, variations or trends, and to help an auditor determine what further audit tests might be needed to gain assurance over the figures.

5.3.2 Business performance management software

Although business performance management should not be primarily about software, organisations need to consider whether their performance management software is suitable for managing performance effectively and efficiently.

Many organisations still rely on office tools (such as Microsoft Excel and PowerPoint) as their main technology to analyse and report performance data. However, particularly for large and complex organisations, spreadsheets may not be appropriate for performance management.

For example, many spreadsheets contain significant **errors**. A lack of version control, and a lack of logging changes over time, lead to errors which could compromise the reliability of data in the spreadsheets and impede management's ability to make decisions based on data from the spreadsheets.

Scalability: Large organisations are likely to find that the amount of data to analyse means that spreadsheets grow into big documents with colour coding, macros, calculations etc. In turn, this causes spreadsheet-based applications to become slow and prone to crashing. Often, there is just too much data and complexity in the spreadsheet.

Equally, spreadsheet-based solutions are often **manually fed and updated**. As well as increasing the risk of human error, this makes them very time consuming, as business analysts have to spend time updating the spreadsheets on a regular basis.

Therefore, organisations should consider whether it may be more appropriate for them to use specialist performance management software rather than relying on standard office tools (such as Excel). For example, performance management software could provide managers with interactive drill-down capabilities to analyse performance data, and it could also provide business intelligence features such as trend analysis, root-cause and impact analysis, and simulation and scenario features.

Context example: The problems with using spreadsheets

Spreadsheets are widely used in businesses around the world but problems can occur, particularly when spreadsheets are used to manipulate large volumes of data. In the middle of the coronavirus pandemic Public Health England admitted that they had missed out 16,000 confirmed cases of coronavirus in their reporting between September 25th and October 2nd 2020. Although the 16,000 confirmed cases were informed of their positive test, the omission had serious consequences since it prevented the NHS Test and Trace system from tracking down close contacts of those who had tested positive. So, what caused the error in the first place? On investigation it became clear that laboratory

data was being transferred to Excel spreadsheets which were reaching their limit in terms of the number of rows that they could process. Whilst current Excel files can handle 1,048,576 rows and 16,384 columns of data, the companies analysing swab tests were using older Excel files that could only handle 65,000 rows of data (approximately 1,400 cases). This error and the knock-on effect on confidence in Public Health England clearly illustrates the limitation of relying on spreadsheets.

Despite its many uses and applications, Excel is not always the right tool for the job and all organisations should ensure their data analysis systems are sufficiently robust to cope with the task at hand.

Source: Clough,P (2020) *Why you should never use Microsoft Excel to count coronavirus cases* [Online] Available from: https://theconversation.com/why-you-should-never-use-microsoft-excel-to- count-coronavirus-cases-147681 [Accessed 5 July 2021]

5.4 Information risks

In 2015, the UK Government published a paper – *Managing Information Risk*– which included a summary of the key areas of information risk an organisation needs to consider. Information risks are risks which affect an organisation's guardianship and management of information. In this respect, it is important to note that information risks are not necessarily the same as IT risks, although managing IT security is likely to be a key component of any strategy to manage information risks.

Risk category	Example of risk
Governance and culture	Lack of comprehensive oversight and control (so anything can go wrong) When something goes wrong, handling it badly and not learning from it (so the problem can happen again) Third parties (eg, suppliers) let you down (eg, because they are not made aware of the standards/timetables required of them) New business processes don't take information risk into account
Information management and information integrity	Critical information is lost (with legal, reputational or financial consequences) Critical information is wrongly destroyed, not kept, or can't be found when needed Lack of basic disciplines in record keeping (eg, records are incomplete) Inaccurate information (which causes the wrong decisions to be made or the wrong action to be taken) Electronic information becomes unreadable due to technical obsolescence (with legal, reputational or financial consequences)

The human dimension	Despite having procedures and rules, staff, acting in error, do the wrong thing or make mistakes (meaning things go badly wrong) Despite having procedures and rules, 'insiders', acting deliberately, do the wrong thing (and things go badly wrong) External parties get your information illegally (and expose it/act maliciously/defraud you or your customers)
Information availability and use	Inappropriate disclosure of sensitive personal information (causing reputational damage or worse) Failure to disclose critical information when required Failure to utilise the value of the information asset Failure to allow information to get to the right people at the right times (leading to a failure to service customers)

Sources of internal assurance

As well as identifying these risks, the government paper suggests potential sources of internal assurance over them. These include the following:

- identifying a board-level senior information risk owner, supported by a team, to manage the organisation's information and information risks
- identifying key information assets across the organisation (in terms of both information content and information systems)
- producing and regularly updating a risk register for the organisation's information risks with key risks prioritised and action plans in place to address them
- Compliance with legislation and key standards (eg, GDPR); spot checks to ensure data quality is being maintained
- Clear guidance and rules about what information needs to be kept, how long it needs to be kept, and where it can (or cannot) be stored
- Mandatory training in place for asset owners and users of information systems
- Controls in place to restrict access to (or ability to change) key files; audit checks on inappropriate use of key systems, personnel security
- Factoring information management into business and system design processes
- Backups of key information; backup systems held in a secure, separate location
- Strong, regular engagement of the Audit Committee with information risks
- 'Whistleblowing' procedures in place and understood by all staff
- Mapping of key suppliers, their associated information assets linkages, and their risks
- clear standards and contractual obligations for suppliers to meet

5.5 Information systems and assurance

In this chapter we have highlighted a number of ways in which organisations use IS and IT.

Equally, however, we must recognise that the increasing use of computer systems brings certain risks to an organisation, which in turn could have an impact on the organisation's financial statements, or on the decisions made by management. Decision makers need to be confident in the credibility of the information they are using to make decisions.

Two key risks of using computerised systems are:

- The system is put at risk by a virus or some other fault or breakdown which spreads across the system
- the system is invaded by an unauthorised user who could then disrupt the smooth operation of the system, or obtain commercially sensitive information from it

Consequently, it is important for an organisation to ensure that its systems are as reliable as possible, and that they are the best systems at the given cost.

If the organisation has purchased its information systems from an external service provider it might seek these assurances from its service provider. However, the service provider has a vested interest in believing that its system is reliable and the best available, because they are paid to supply it.

Therefore, the organisation might seek an assurance service from its auditors to undertake work to ascertain whether the assertions made by the service provider are correct. In other words, the auditors might be asked to undertake an assurance assignment to report on the reliability and adequacy of an organisation's IT systems.

If a firm of accountants is considering taking on such an assurance engagement, it must ensure that it has staff with sufficient skills and experience to undertake the procedures required. To this end, there must be an IT specialist on the engagement team.

Information subject to assurance

More generally, there is a wide range of information which could be subject to some form of external assurance. The following are examples of areas where an external assurance service might be requested:

(a) **Quantitative information, including non-financial information and performance measures such as KPIs** – the range of information which organisations now disclose (or have to disclose) about themselves has gone far beyond traditional financial reporting. However, if organisations are disclosing this information externally (for example, as part of their Annual Report) it follows that they also need external assurance on the quality of that information. (We discussed assurance in relation to KPIs in chapter Strategic performance management earlier in this Workbook.)

In relation to **business performance measurement** an entity could seek assurance that its performance measurement systems contain relevant and reliable measures for assessing the degree to which its goals and objectives are achieved, or how its performance compares to that of its competitors.

(b) **Environmental information** – For example, if an entity has stated a performance target to reduce greenhouse gas emissions, it will need someone to measure its level of emissions and verify the degree to which they have been reduced. (Again, we discussed assurance over reporting environmental impacts in the chapter Strategic performance management.)

(c) Aspects of IT such as information flows and security over those information flows. In particular, **IS reliability** – assurance that an entity's internal information systems provide accurate and reliable information for operating and financial decisions.

(d) **Electronic commerce** – Assurance that systems and tools used in electronic commerce provide appropriate data integrity, security, privacy and reliability.

(e) Compliance with contractual obligations.

(f) Risk assessment; risk management systems and processes– assurance that an entity's profile of business risks is comprehensive, and an evaluation of whether the entity has appropriate systems in place to effectively manage those risks.

(g) Internal controls and the internal control environment.

(h) Governance, strategy and management processes.

Few organisations can function effectively without IT systems supporting their key business processes, and many cannot function at all if their systems fail. However, organisations' systems may be vulnerable to attack or failure, either as a result of flaws in the design of the systems, failure to apply security patches, or poor security management.

Unauthorised access to an organisation's systems and data could have serious financial or legal implications, as well as potentially damaging the reputation of the company. In this respect, the directors of the organisation might seek an assurance service from their auditors, or another firm of accountants, that the organisation's technology systems and the processes they support are functioning as intended. For example, are security systems designed to reduce the risk of unauthorised access to systems and data reliable?

Systems audit

An example of an assurance assignment might be a request to report on the adequacy of the internal controls in place. Internal control effectiveness is generally assessed by means of a systems audit.

As part of any external audit, auditors are required to assess the quality and effectiveness of an entity's accounting system, which necessarily includes a consideration of any computer systems in place within the entity which are linked to its accounting system.

However, auditors could also accept an assurance engagement outside of the audit to report specifically on how reliable an entity's information systems are.

Key areas which an assurance engagement is likely to concentrate on are:

(a) Management policy

(1) Does management have a written statement of policy in relation to computer systems and other information systems?

(2) Is that policy compatible with management policy in other areas?

(3) Is that policy sufficient and effective? Is it adhered to?

(4) Is the policy updated when any systems are updated? Does it relate to the current systems?

(b) Segregation of duties

(1) Is there adequate segregation of duties in relation to data input?

(2) Are there adequate systems controls (eg, passwords) to enforce segregation of duties?

(c) Security

(1) Is there a security policy in place covering physical security (locked doors/windows), access security (passwords) and data security (virus shields)?

(2) Is the security policy sufficient and effective? Is it adhered to?

General controls and application controls

When testing the control environment in an entity, an auditor should assess general controls as well as application controls.

The purpose of **general IT controls** is to establish a **framework of overall control** over the computer information system's activities to provide a reasonable level of assurance that the overall objectives of internal controls are achieved.

The areas covered by general IT controls include:

- development of computer applications
- prevention and detection of unauthorised changes to programs
- testing and documentation of program changes
- controls to prevent unauthorised amendments to data files
- controls to ensure continuity of operations (eg, backup and emergency procedures)

The purpose of **application controls** is to establish specific control procedures over accounting applications to provide reasonable assurance that all transactions are authorised and recorded, and are processed completely, accurately and on a timely basis.

Application controls include data capture controls, data validation controls, processing controls, output controls and error controls.

Controls and assurance over e-commerce

Earlier in this Workbook, we noted how e-commerce has provided new growth opportunities for entities. However, it is equally important to note that an entity using e-commerce also needs to have internal controls in place to mitigate against the risks associated with e-commerce.

In particular, these risks include security issues (eg, ensuring customers' transactions are secure) and process alignment (eg, if a website is not automatically integrated with the internal systems of the entity, such as its accounting system and its inventory management system, the entity will need to ensure that it processes transactions completely and accurately).

A key issue with e-commerce is trust. In many cultures, consumers grant their trust to business parties that have a close physical presence. On the internet this physical presence is simply not there. The seller's reputation, the size of the business, and the level of customisation in products and services also engender trust.

Internet merchants need to elicit consumer trust when the level of perceived risk in a transaction is high.

However, research has found that once consumers have built up trust in an internet merchant, such concerns are reduced.

Internet merchants need to address issues such as fear of invasion of privacy and abuse of customer information (about their credit cards, for example) because these issues can stop people even considering the internet as a shopping channel.

The parties involved in e-commerce need to have confidence that any communication sent gets to its target destination unchanged and without being read by anyone else.

WebTrust and SysTrust are examples of assurance services developed in the last few years in relation to e-commerce. The underlying principles of these two services have been combined into one common set of principles known as Trust Services, which allow auditors to evaluate business systems and controls.

Trust Services are based on five principles:

- **Security** – The system is protected against unauthorised access.
- **Availability** – The system is available for operation and use as agreed.
- **Processing integrity** – System processing is complete, accurate, timely and authorised.
- **Online privacy** – Personal information obtained as a result of e-commerce is collected, used, disclosed and retained as agreed.
- **Confidentiality** – Information designated as confidential is protected as agreed.

WebTrust and SysTrust can be used to provide assurance on an organisation's website and on its systems respectively. Such assurance engagements are performed as reasonable assurance engagements in accordance with ISAE 3000 (Revised).

6 Cybersecurity

Section overview

It has always been important for businesses to keep their data and information systems secure. However, as businesses increasingly use digital technologies, cybersecurity – protecting systems, networks and data from cyberthreats – has become a critical issue for them. Cybersecurity failurescan cause significant damage, for example through business disruption or reputational damage.

One of the recurring themes throughout this Workbook has been the increasing importance of information technology and digital technology to contemporary organisations; for example, through the way the digital world brings business partners, consumers and suppliers together, and enables organisations to gather and use information (for example, in relation to 'big data').

However, as the ICAEW Information Technology (IT) Faculty report *Audit Insights: Cyber Security* (2018) highlights, businesses need to understand the risks associated with new technologies as well as the opportunities they provide:

[A] key challenge in cybersecurity stems from the continually changing nature of the risk, especially given the fast pace of change in technology. New technologies provide both opportunities and challenges for cybersecurity. Big data, artificial intelligence and all types of automation, for example, create new risks and new targets for attackers. Greater reliance on algorithms and data for all business operations increases the potential impact of breaches and attacks. These technologies also provide greater opportunities to improve cybersecurity through more automated controls, better understanding of anomalies on networks, and better prediction around the behaviour of attackers.

Crucially, as businesses increasingly use digital technology to transform their business operations and the way they engage with customers, so cybersecurity – the protection of systems, networks and data in cyberspace – is also becoming an increasingly important issue for all businesses.

Moreover, as the IT Faculty report suggests, cyber-risks are constantly evolving:

- Threats change as attackers get more sophisticated and find new ways of breaking into systems. New attackers also emerge, as easy-to-use hacking tools reduce the level of skill required to carry out attacks.
- Vulnerabilities change as businesses digitally transform their business models and ways of working, potentially creating new weaknesses in business processes; eg, through mobile ways of working.
- Existing controls and assurance models are superseded by new approaches. For example, moving to cloud-based systems has made traditional assurance models around IT controls more difficult to apply.
- The impact of failures increases, as businesses capture more data and rely more heavily on digitally-based services. A slow or poor response to a major breach is very quickly and publicly shared over social media, increasing at least short-term reputational damage.

6.1 Cybersecurity controls

As the ICAEW IT Faculty report *Audit Insights: Cyber Security* (2013) points out, cybersecurity requires an organisation to have controls in place to address a wider range of risks than the ones traditional 'information security' is designed to safeguard an organisation against.

Traditional approaches to information security have focused on the internal controls needed to maintain the confidentiality, integrity and availability of data. However, controls relating to cybersecurity need to incorporate external factors:

- Potential threats can now come from around the world, and could involve organised criminals, corporate spies and 'hacktivists' as well as disgruntled or careless employees.
- Security weaknesses can be found throughout a supply chain, not just within a single business. Similarly, the disparate nature of data storage across servers, cloud storage and mobile devices provides a range of access points for attackers to exploit.
- The impact of security failures can extend across every aspect of a business, including disruption of operations and customer service, interference with production control systems, damage to brand and reputation, theft of intellectual property or commercially sensitive information and regulatory fines.

Context example: Target Corporation

Target Corporation is the second-largest discount retailer in the United States, with around 1,800 stores there.

A data breach of Target's systems in December 2013 compromised the personal details of up to 110 million customers. One set of data (affecting up to 70 million people) included a mix of names, mailing addresses, phone numbers and email addresses. A second set of data (affecting up to 40 million people) included details of customers' credit and debit card accounts.

Banks that issue credit and debit cards were also concerned that the thieves could use the stolen addresses and phone numbers to contact customers and try to get them to divulge account information. In turn, that could have resulted in fraud losses for the banks.

Target admitted that thieves had broken into its point of sale system, installed malicious software in the system, and stolen credit and debit card data in an attack which lasted for more than two weeks – from 27 November to 15 December 2013.

The timing of the breach (in the run-up to the Christmas holiday season) meant that its impact was particularly significant. Target reported a 46% drop in net profit over that quarter, and incurred $61 million in costs related to the breach (including reimbursements to card networks to cover fraud and the cost of issuing new cards, as well as legal costs associated with the various investigations arising from the security breach).

Perhaps more importantly, the data breach – and the negative publicity resulting from it – reduced customer satisfaction and badly affected Target's efforts to sign up more customers for its in-house credit and debit cards, which were a key part of its strategy to prevent customers from defecting to competitors such as Amazon.

Target's share price also fell 11% after the breach was revealed, and the breach was a key factor in the departure of the CEO and the CIO. The positions of some non-executive directors and members of the audit committee were also threatened, based on their poor level of oversight.

It emerged that attackers accessed Target's data through the compromised systems of a heating, air conditioning and refrigeration supplier, illustrating the risks of integrated supply chains. Another weakness which the attackers exploited was the point-of-sale system, which had been customised to provide enhanced marketing opportunities without fully considering the security risks involved.

In view of the increased importance of cybersecurity, the ICAEW IT Faculty report *Audit Insights: Cyber Security* (2013) raises four 'flags' which it suggests organisations should consider in relation to it:

(a) **Business should consider 'cyber' in all their activities** – Businesses' ability to make use of information about customers, supply chains, competitors and others will increasingly influence business success. But alongside the opportunities provided by digital technology and the internet there are risks around the security of important information and the digital infrastructure. Businesses need to manage these cyber-risks to ensure that they exploit the opportunities in a secure and sustainable way.

As such, ICAEW's report recommends that businesses should consider cybersecurity as a **business risk** (rather than a technical risk) and should consider the implications for cybersecurity of all their strategies and operations. (If we think back to the example of Tesco's business risks we considered in the chapter Strategic analysis of this manual, we can see that Tesco includes 'Data security and privacy' as one of its key business risks.)

Considering cybersecurity as a business risk could be particularly important for businesses hoping to enter a new supply chain, or considering an acquisition. Equally, having a plan in place to deal with cyberattacks could also provide a competitive advantage against competitors in the market. For example, it is important for organisations in a supply chain to be seen as trusted partners, and having strong security capabilities could be one way in which a supplier develops its reputation with its customers.

(b) **Businesses need to accept that their security will be compromised** – Although businesses still need to apply appropriate preventative controls to protect their information, they need to operate in a way which assumes that some of their information will inevitably be accessed by others.

This means that intelligence and monitoring, detection and response are increasingly important aspects of security.

(1) **Intelligence and monitoring** – Intelligence on potential threats can be gathered from a variety of sources. For example, businesses could monitor social media to identify whether data has been leaked into the public domain; or they could participate in information sharing schemes with trusted partners or the government and its security services to understand attacks experienced by others and to help prepare for similar attacks in future.

(2) **Detection** – Attackers can potentially breach systems for weeks or months before being detected, stealing large amounts of sensitive data in the process. Therefore detecting a breach early is imperative, in order to tackle it and limit the damage caused. Data analytics can be important in this respect – if a business has a clear baseline (which represents normal activity) it will be easier to identify abnormal activity (eg, high levels of data downloading, systems activity at unusual times of day, or access from unexpected places).

(3) **Response** – As well as implementing technical remedies to breaches, a business may also need to manage a variety of stakeholder concerns to limit the overall impact of the breach – for example, communicating with customers who may have been affected by the breach and responding to their concerns; or ensuring compliance with any regulatory requirements; and keeping investors informed.

The growth of social media exposes businesses which do not respond effectively to breaches. News of data breaches or compromises can spread very quickly across platforms such as Twitter. If a business is slow to respond, and only provides limited information to customers, this can amplify the impact of the breach on the business's reputation.

(c) **Businesses should focus on their critical information assets** – It is almost inevitable that businesses will not be able to protect all of their information at all times. So, instead of trying to do this, businesses should prioritise their information assets and focus their security resources on the key assets. In particular, entities should identify where breaches would have a substantial impact on the competitiveness and sustainability of their business, and focus their security in these areas.

(d) **Most businesses don't get the basics right** – ICAEW's report states that up to 80% of security breaches could be prevented by implementing basic good practices in cybersecurity. However, businesses of all sizes, and in all industries, struggle to get the basics right. Complex IT environments, and lack of expertise, can both be reasons for this, but people are the weakest link in implementing effective security, and human failings are increasingly being exploited by attackers to gain access to confidential information.

More generally, the increased risk that cyberthreats pose to businesses also highlights the need for management to have a framework for assessing and treating risks. The International Organisation for Standardisation's ISO 27001 – *Information security management* describes best practice for an information security management system, and identifies the requirements for establishing, implementing, maintaining and continually improving such a system. As such, complying with ISO 27001 should help an organisation improve its defences against cyberattacks, and, by doing so, increase the confidence that customers and other interested parties have in the organisation's systems.

Context example: CESG – Ten steps to cybersecurity

CESG, the National Technical Authority for Information Assurance in the UK, has found that, in a number of cyberattacks, attackers exploit basic weaknesses in organisations' systems.

Therefore, for many organisations, the first step in implementing an effective risk management strategy should be to remove these basic weaknesses.

CESG has identified 10 key steps which it believes are crucial in helping organisations to protect themselves against the majority of cyberthreats:

(a) **Defining the organisation's risk management regime** – This is central to an organisation's cybersecurity strategy, because it helps to determine the organisation's risk appetite.

(b) **User education and awareness** – Produce user security policies covering acceptable and secure use of the organisation's systems. Establish a staff training programme. Maintain user awareness of the cyber-risks.

(c) **Home and mobile working** – Develop a mobile working policy and train staff to adhere to it. Ensure all devices comply with the minimum requirements of the policy. Protect data in transit and at rest (eg, through storing devices securely).

(d) **Secure configuration** – Apply security patches and ensure that the secure configuration of all ICT systems is maintained.

(e) **Removable media** – Produce a policy to control all access to removable media (eg, USB sticks). Limit media types and use. Scan all media for malware before importing on to the corporate system.

(f) **Managing users' privileges** - Establish account management processes which control user privileges and monitor user activity (eg, monitoring websites users visit).

(g) **Incident management** – Establish an incident response and disaster recovery capability (including the creation of an incident management team). Produce and test incident management plans. Report criminal incidents to law enforcement.

(h) **Monitoring** – Establish a strategy for monitoring all ICT systems and networks, and then continuously monitor them. Analyse logs for any unusual activity that could indicate an attack.

(i) **Malware protection** – Establish anti-malware defences that are applicable and relevant to all business areas. Scan for malware across the organisation.

(j) **Network security** – Protect the organisation's networks against external and internal attack. Manage the network perimeter. Filter out unauthorised and malicious content. Monitor and test security controls.

As with any other risks, cyber-risks need to be managed proactively by the Board. Similarly, part of the corporate governance activity should focus on obtaining assurance that the organisation is pursuing an effective information risk management regime. Is it managing the right information risks and cyber-risks for its business? Are the necessary security controls in place to meet these risks? Are the security controls regularly tested, monitored and reviewed?

In relation to this, CESG suggests that the Cyber Essentials scheme (see next section on cybersecurity and assurance) defines the minimum set of security controls an organisation (large or small) should have in place to mitigate the risks from cyberattacks.

ICAEW's IT faculty has identified its own '10 steps to cybersecurity', which – not surprisingly – reiterate some of the steps identified by CESG:

(a) **Allocate responsibilities** – As with any business activity, it's crucial to identify what must be done, and who will do it. Overall responsibility should rest with a senior manager (for example, the CIO), who has a broad view of all the risks and how to tackle them. Other individuals can then be assigned specific roles – for example, installing security software.

Management should identify the information and technology which are really vital to the business, and therefore where the key risks lie. For example, damage to a business's financial system, or loss of its customer list could lead to the failure of the business.

Identifying the key risk areas, then establishing what security measures already exist, whether they work, and what extra measures may be required will allow an organisation to target its security efforts where they are most needed.

(b) **Protect your computers and your network** – Malicious activity could come from outside a business or from inside. Attacks from outside (eg, from hackers) can be protected by installing a firewall.

The firewall can also be used to manage staff's internet activity, for instance by blocking access to sites where employees might encounter security risks.

(c) **Keep your computers up to date** – Suppliers of software and operating systems (such as Windows) frequently issue software updates ('patches') to fix problems or to improve security.

It's essential to keep all computers and other devices up-to-date with the latest patches. A single, vulnerable computer in a network can put all the others at risk.

(d) **Control employee access to computers and documents** – Although computers should be guarded with a firewall, it is still necessary to protect user accounts and documents with passwords. Each individual user should have a unique user name and password, which can be used to regulate users' access to different parts of the system.

The use of passwords and access rights not only controls staff access to systems and information, it can also provide further security against outside intrusions.

(e) **Protect against viruses** – Ensure that computers are fitted with up-to-date anti-virus software. This software regularly scans a computer in search of malicious software (or 'malware') and deletes any that is found. Regular updates to fend off new threats are key to anti-virus software.

(f) **Extend security beyond the office** – If employees work away from the office – using laptops, phones or tablets – make sure these are also covered by anti-virus software, password protection and (where applicable) a firewall. Ensure that sensitive data is kept in an encrypted are of the computer or device.

Employees should also be reminded of the potential dangers of connecting to unencrypted public wi-fi, because hackers can intercept data.

(g) **Don't forget disks and drives** – Removable disks and drives (such as USB sticks) pose security risks in two ways: they can introduce malware into computers, and they can be mislaid when containing sensitive information.

Ensure that as far as possible, employees only use disks and drives owned by their business are used in their computers, and set up anti-malware software to scan them whenever they are used in the office.

(h) **Plan for the worst** – No system is 100% secure, so it is worth planning how you would react if things go wrong. Do you need external help (eg, a specialist computer company)? Do you need to contact key customers or suppliers to explain there is a problem? Can some functions be continued using other computers while systems are repaired?

Ensure there is a clear plan identifying who is responsible for doing what in an emergency. This may incorporate elements of plans for other disasters, such as a fire on the business' premises.

(i) **Educate your team** – It is vital to tell everyone in the business that security matters, and to ensure that they know how they can help to uphold security (for example, by keeping passwords safe, and changing them regularly).

Training sessions or written policy documents may help remind staff about the importance of security, and the risks they may face. For example, reminding them not to click on web links or email attachments from unfamiliar sources.

Employees also need to watch out for social engineering (or 'phishing') where hackers try to trick them into revealing details that make an organisation's computers vulnerable.

(j) **Keep records** – and test your security. Maintaining security is an ongoing, not a one-off fix, so it's important to keep clear records – for example, keeping a record of the hardware and software an organisation uses will help build up a picture of your business's security status, and spot potential weak points.

Good record keeping will also help you regularly test all your security measures, and ensure that you have functioning, up-to-date software (for example, through keeping a record of software patches applied).

Ultimately, any business is only as secure as its weakest link, and testing will help make sure that no weaknesses get over-looked.

These 'steps' along with CESG's steps could provide a useful framework for appraising an organisation's strategies for ensuring the security of its data and for preventing cyberattacks.

More generally, in the light of the increased challenges which cyber-risks present to organisations, senior management also have to do more to promote an awareness of cybersecurity. ICAEW's 2018 *Audit insights: Cyber Security* recommends that businesses should instigate the following measures:

- **Embed a greater awareness of cyber-risk throughout their strategy and operations**. Ultimately, it is the board's responsibility to ensure that management respond to the risks identified and take appropriate steps to mitigate them.
- **Build a security-focused culture** based on continuous improvement and integrated thinking around cybersecurity, rather than seeing it as a series of one-off tactical activities.
- **Improve cyber-risk reporting**: make cyber-risk reporting more transparent, qualitative and focused on the impact of security investments; for example, threat analysis and the extent to which investments have reduced cyber-risk.
- **Reduce the complexity of the IT environment**: standardising systems where possible and mitigate risks through effective controls between legacy and modern environments. Although using bespoke systems may help meet specific business needs, having a variety of complex and disparate systems makes effective cybersecurity (such as patch management) more difficult. So, from a cybersecurity perspective, businesses should be encouraged to simplify and standardise the IT environment as far as possible. (This could also be an important issue in the context of an acquisition, and integrating legacy systems in the company being acquired.)
- **Manage talent**: develop talent management strategies at all levels of the organisation to cope with skills shortages in relation to managing cybersecurity in order to reduce reliance on contractors and consultants.
- **Apply discipline**: focus on applying strong discipline around security, and consistently complying with good practices.

  In addition, management can also help to improve cybersecurity by:

- **Learning from past security breaches.** Following a security breach, senior management should use this as an opportunity to promote the importance of cybersecurity throughout the organisation, and should look to put in place measures to address the weaknesses that permitted security breaches to occur in the past.
- **Determining the organisation's tolerance to the cyber-risks** is an important step in designing management strategies. Such an exercise may lead to the conclusion that additional funding is required to enhance the cybersecurity features of the organisation's IT/IS infrastructure.
- Ensuring that **non-executive board members play an active role in promoting cybersecurity** during their interactions with the board. This may involve keeping their knowledge about the evolving nature of cyber-risks up to date and challenging the executive directors about the need for following best practice in cybersecurity.

Professional skills focus: Structuring problems and solutions

In the SBM&L exam you will be required to identify a range of creative and pragmatic solutions to business problems identified in the question scenario. Rather than memorising and repeating syllabus knowledge you should use the content in your study materials, along with wider business reading, to develop your commercial acumen thus enabling you to suggest value-adding solutions for the business.

Context example: National Health Service (NHS) in UK

When discussing cyber-risk and cybersecurity, there could be a number of different perspectives to consider:

- Causes: for example, attacks by hackers (using malware, or ransomware); weaknesses in the IT systems (eg, out of date security patches); or human error in opening an attachment which contained malware
- Consequences: for example, potential disruption to operations; loss of data, damage to reputation, and the potential financial consequences of these
- Steps that could have been taken to prevent a cyberattack, or which could be taken to prevent a similar attack recurring in the future

Think about these different elements as you read this case study:

In May 2017, the National Health Service (NHS) in the UK was hit by a large-scale cyberattack which disrupted treatment at a number of hospitals, forcing them to cancel routine appointments and to divert emergency patients to neighbouring hospitals which had not been affected by the attack.

Hospitals reported problems with their email systems, as well as clinical and patient systems, following the ransomware attack which 'locked' computer data and demanded payment (in Bitcoin) for its release.

The attacks did not only target the NHS, but were part of a much larger ransomware campaign, affecting organisations across a range of sectors and in a number of different countries, including Russia, Japan, Germany and Spain (where major companies like Telefonica and Santander were both affected by the attack).

Nonetheless, the attacks raised concerns about cybersecurity across the NHS, as well as ransomware's ability to cause disruption to vital services.

Organisations' abilities to guard against malicious activity rely on having robust security measures in place, as well as educating the workforce.

As one threat prevention expert noted: 'Organisations need to be able to prevent infections [ransomware attacks] taking hold in the first place, by scanning for, blocking, and filtering out suspicious file content before it reaches their networks. It's also essential that staff are educated about the potential risks of incoming emails from unknown parties, or suspicious-looking emails that appear to come from known contacts.'

Although the NHS wasn't the only organisation affected by the attack, the attack nonetheless raised questions about the resilience of the NHS's IT systems, and highlighted a lack of infrastructure investment, resulting in the fact that the service relies heavily on ageing infrastructure.

Some of the NHS's IT systems can only function using old operating software. For example, some NHS trusts continued to use Windows XP as an operating system, even though Microsoft stopped supporting that system in 2015. The ransomware was able to exploit a flaw in the system's file sharing service, which arose from the lack of updates in Microsoft security patches.

Battling with a lack of funding, some NHS trusts are running unpatched Windows XP machines, leaving them vulnerable to attack.

As one former NHS IT director pointed out, 'Upgrades are costly and there simply isn't enough money in most NHS trusts' budgets [to upgrade their systems].' Another NHS IT director, acknowledged that, although there had been increased support from government to upgrade IT across NHS trusts, investment in infrastructure is still not given enough priority. And many NHS trusts do not have a specific budget for cybersecurity.

Following the attack, opposition politicians were quick to criticise the lack of funding, and the lack of cybersecurity across the health service. The shadow health secretary said 'This incident highlights the risk to data security within the modern health service and reinforced the need for cybersecurity to be at the heart of government planning. The digital revolution has transformed the way we live and work, but we have to be ready for the vulnerabilities it brings, too.'

However, although a lack of funding and a lack of cybersecurity infrastructure have been highlighted as key issues, concerns have also been raised about a lack of awareness of cybersecurity among staff.

Although there is cybersecurity training in place at most NHS trusts, it does not seem to be having much impact yet. In some cases, a lack of properly integrated IT systems means that clinical staff use 'workarounds' to make systems work more easily for them.

The former NHS IT director said, 'Clinical staff… want to do their work as well and as efficiently as possible, and when the systems we use are not allowing them to do so, they find other solutions.' For example, staff keep their computers logged on when they go to the toilet or get a coffee, because if they logged off and came back they would have to start their current session again.

In 2016, the national data guardian, Fiona Caldicott, also said that there were problems with data not always being protected. Her report into data security in the NHS highlighted that examples of poor practice included confidential papers being stored in unlockable cabinets, and the use of unencrypted laptops.

Sources:

Ashford, W. (2017) 'NHS hospitals hit in global ransomware attack', *Computer Weekly*, 12 May 2017, www.computerweekly.com

Evenstad, L. (2017) 'NHS cyberattack shows need for resilient infrastructure and security education',

Computer Weekly, 15 May 2017, www.computerweekly.com

Context example: Reckitt Benckiser

In June 2017, the multinational consumer goods company, Reckitt Benckiser – whose brands include Dettol, Durex, Strepsils and Vanish – realised that its systems had been infected by the 'Petya' malware attack that started in Ukraine (where the company has operations).

Reckitt's chief executive said the virus had 'self-destructed' within one hour of striking, but in that time it had created havoc.

The chief executive also attempted to quantify the impact of the attack. In a market update warning, he noted that second quarter sales would fall by 2% instead of being flat, as had previously been expected.

The attack, which disrupted Reckitt's manufacturing and its ability to issue invoices, and to distribute products in many of the 60 countries in which it operates, was also expected to restrict full year sales growth to 2%, instead of 3% as previously expected.

One analyst estimated that the revised sales forecast equated to a drop of £112 million in annual revenue, and Reckitt admitted: 'The continued production difficulties in some factories mean we expect to lose some further revenue permanently.'

Reckitt's decision to quantify the impact of the attack was very unusual, but the company decided to issue a statement after taking advice from its brokers.

The company's chief executive also pointed out, 'This is new territory for everyone. What we are seeing is that with every cyberattack, the force is getting multiplied.'

Reckitt had safety measures in place, including software patches before the attack, which raised the broader question of how companies can protect themselves from future attacks. Reckitt's IT investment was in line with its peers, and it had prioritised cybersecurity, including creating a senior role to oversee global protection.

One suggestion, made by a cybersecurity partner at PwC, is that multinationals might have to rebuild their networks with boundaries and segregated systems to prevent malware infecting their entire operations.

Although Reckitt Benckiser was the first company to reveal a financial impact of the Petya cyberattack, the malware infected organisations in more than 60 countries, so many other companies were affected, with AP MollerMaersk, WPP, FedEx and its subsidiary, TNT, being among the worst hit.

With increased automation, cyberattacks can have a huge effect on critical infrastructure, leaving companies unable to carry out basic functions, such as accessing emails or documents. Maersk (a leading logistics and shipping company) was unable to take customer orders for two days, and had to re-route ships after IT systems were taken offline.

One analyst estimated that the attack could have cost Maersk about $60 million in lost revenues, which reinforces how sensitive automated systems are to hacker attacks and cybercrime.

Based on: Daneshku, S. (2017) 'Reckitt seeks to quantify havoc of malware attack', *Financial Times*, 6 July 2017

6.2 Cybersecurity and assurance

Although technologies and trends such as cloud computing, the increasing use of mobile devices and social media, and the emergence of big data can have benefits for organisations, they also present significant security challenges. Very few organisations are now immune to cyberthreats, and increasingly potential business partners or suppliers are seeking assurance over an entity's cybersecurity before they are happy to do business with them.

The 2015 *Information Security Breaches Survey*, conducted by PwC on behalf of the UK government, found that 40% of organisations ensure that a provider of services has ISO 27001 certification for services. The survey also found that 13% of organisations require their suppliers to comply with an independent service auditor's report (eg, ISAE 3402) over their security.

Although ISO 27001 certification shows that an organisation has a functioning information security management system, an ISAE 3402report by an independent third party will be a more effective way of checking that a supplier's controls are suitably designed to achieve their objectives, and that they function as they are meant to.

As we noted in section 1.6.2 earlier in this chapter, an ISAE 3402 report will provide an independent opinion on the design, existence and possibly the operating effectiveness of a service provider's controls.

(As we noted in the chapter Strategic implementation, where we discussed ISAE 3402 in more detail, a 'Type 1' report will provide an opinion on the design and existence of the control measures. A 'Type 2' will provide an opinion on these aspects as well as the operating effectiveness of the controls.)

Cyber Essentials

In the UK, a third framework for assessing cybersecurity in an organisation is Cyber Essentials, which the government launched in June 2014, and which forms a pre-requisite for suppliers bidding for many central government contracts.

Cyber Essentials requires an organisation to assess its system security in relation to five key control areas:

- **Service configuration** – ensuring that systems are configured in the most secure way for the needs of the organisation
- **Boundary firewalls and internet gateways** – these are designed to prevent unauthorised access to or from private networks, but good setup of them either in hardware of software form is important for them to be effective
- **Access control** – ensuring only those people who should have access to systems do have access, and at the appropriate level
- **Malware protection** – ensuring that virus and malware protection is installed and is kept up to date
- **Patch management** – ensuring that the latest supported version of applications is used, and all the necessary patches supplied by the vendor have been applied.

The Cyber Essentials assessment can be applied at two levels:

- The **basic Cyber Essentials certification** is awarded on the basis of a verified self-assessment. Organisations assess themselves against the five key control areas via a questionnaire, which is approved by a senior executive such as the CEO. An independent, qualified assessor then verifies the information provided to assess whether an appropriate standard has been achieved for certification to be awarded.

This option offers a basic level of assurance, but can be achieved at low cost.

- **Cyber Essentials PLUS** provides a higher level of assurance. A qualified and independent assessor examines the same five controls, testing that they work in practice by simulating hacking and phishing attacks.

Because of the more resource intensive nature of this process, Cyber Essentials PLUS is much more expensive that Cyber Essentials. However, the level of assurance provided is correspondingly higher.

Interactive question 7: Cybersecurity

Hiway manufactures car infotainment systems, which provide navigation information and information about traffic conditions (for drivers) as well as entertainment (such as music and games) for passengers. It has a contract from two leading car manufacturers to supply the infotainment systems for their vehicles.

A recent report has alleged that serious security flaws in the technology used in Hiway's system make it vulnerable to cyberattack, with the consequence that the electronic functions within the car (eg, such as the speed gauge and parking sensors) or the electronic locks and immobilisers could also be at risk.

Hiway's PR director has strenuously denied the report, and said that none of the company's infotainment systems have been victims of a cyberattack. Nonetheless, Fova plc, one of the manufacturers with whom Hiway has a contract, has called for an urgent meeting to discuss the findings of the report.

The CEO is very concerned about the potential loss of such a significant customer, and has called an emergency board meeting to discuss cybersecurity at Hiway. At the meeting, several of the directors raised concerns that, although Hiway's systems may not have been attacked, the company would struggle to demonstrate to Fova that Hiway has good cybersecurity practices in place.

Requirement

Explain the issues that the board of Hiway should consider in relation to cybersecurity, and make recommendations regarding any actions it should take in this respect.

See **Answer** at the end of this chapter.

6.3 Security and data protection: GDPR

The pressure on cyber security has also been increased, in recent years, by tougher regulations around the protection of personal data, such as the EU General Data Protection Regulation (GDPR).

Note: GDPR is EU legislation so the detailed points of the legislation may not apply to companies in countries outside the EU. Therefore, rather than focusing on detailed points of the legislation, think about the principles the legislation is designed to uphold.

Definition

Personal data: Any data related to a person such as a name, address, date of birth, bank details, medical records, photo, email address, or posts on social networking websites.

The internet has dramatically changed the way people and organisations communicate – but it also means people enter their personal details online – for example, when buying goods, paying bills or subscribing to social media sites.

Equally, the logic of data-driven marketing is that the more data (and information) companies gather about customers, the more targeted and relevant their communications with customers will be, and the better the customer experience will be.

However, it is also important that organisations handle personal data responsibly and securely, and this has been emphasised by data protection legislation, such as GDPR. As we have already mentioned in the chapter Corporate Governance, GDPR requires all organisations to follow strict data protection principles in relation to collecting and using personal data.

GDPR is designed to give individuals more power over their data, and to restrict organisations' ability to collect and use data for monetary gain (eg, by selling individuals' data to third parties).

6.3.1 Principles of GDPR

The GDPR gives customers greater rights about how their data is used, and requires organisations to adhere to the following principles:

- **Consent must be given** – Organisations may not process personal data unless they have been given specific consent to do so by the individual whose data is being processed.

- **The right to be informed** – Individuals must be informed before data is gathered. Customers must consent for their data to be gathered, and consent must be specifically given rather than implied.
- **The right to be forgotten** – If an individual stops being a customer of an organisation, or withdraws their consent, they have the right to have their data deleted.
- **The right to access** – Individuals have the right to request access to their personal data and to how it is being used. The company must provide a copy of the data, free of charge, if requested.
- **The right to have information corrected** – Individuals can have their data updated if it is out of date, or incorrect in any way.
- **The right to object** – Individuals have a right to stop their data being processed and used for direct marketing. There are no exemptions to this rule, and any processing must stop as soon as the request is received.
- **The right to be notified** – If an organisation suffers a data breach which compromises an individual's personal data, the individual should be informed directly and without undue delay; at most **within 72 hours** of the organisation becoming aware of the breach.

When notifying a data subject about a breach, an organisation needs to describe clearly the nature of the breach, and the likely consequences of it. This is to help people whose data is potentially affected by the breach to take steps to protect themselves from the potential effects of the breach.

If a breach occurs, the organisation must also notify the relevant supervisory authority without undue delay (and within 72 hours of becoming aware of it). In the UK, the relevant supervisory authority with respect to GDPR and data protection is the Information Commissioner's Office (ICO).

6.3.2 Business implications of GDPR

Scope – GDPR is very wide ranging. It applies to all businesses and organisations established in the EU. Even if the organisation is not based in the EU, if it offers goods or services to EU citizens, it is subject to GDPR.

Penalties – There are tough financial penalties for non-compliance. Companies and organisations who don't comply with GDPR could face fines of up to 4% of annual global revenue, or 20 million Euros, whichever is greater.

Context example: British Airways

In July 2019, the Information Commissioner's Office (ICO) fined British Airways £183 million – equivalent to 1.5% of the airline's annual turnover – for failing to protect customer data from a hacking attack.

The ICO said that the airline's 'poor security' had allowed the personal details of around 500,000 people to be harvested by criminals in August and September 2018. The data stolen included log-in, payment card and travel booking details, as well as customers' names and addresses.

Announcing the penalty, the Information Commissioner said, 'People's personal data is just that – personal. When an organisation fails to protect it from loss, damage or theft, it is more than an inconvenience. That's why the law is clear – when you are entrusted with personal data you must look after it. Those that don't will face scrutiny from my office to check they have taken appropriate steps to protect fundamental privacy rights.'

However, in August 2019, BA said that it planned to appeal against the fine, arguing that it had been proved that BA failed to comply with GDPR rules.

Sources: Bentham, M, Record £183m fine for BA over passenger data breach, *Evening Standard*, 8 July 2019, pp 1–2.

Lynch, R. BA owners plans appeal against £183m fine over cyberhacking, *Evening Standard*, 2 August 2019, pg. 40.

Controlling data – An important implication of GDPR is that it forces organisations to get a better understanding of the personal data they hold. Questions an organisation needs to consider are:

- What data does it hold? (Does it need this data, or should it be erased?)
- Where is the data stored?
- Who can access the data?
- Are there any risks to the data?

Data security – One of the key issues in complying with GDPR is that organisations need to develop and implement safeguards to help prevent data breaches, and to contain any breaches which do occur.

Organisations also need to take rapid action to notify individuals affected, and authorities, if a breach does occur. As a result, organisations need to have a **communication plan** in case a data breach occurs.

Companies that process a lot of sensitive personal data have to employ a data protection officer (DPO). This officer has to report to senior members of staff, monitor compliance with GDPR and be a point of contact for employees and customers.

Compliance and accountability – One of the principal aims of GDPR is to make organisations 'accountable' with regards to how data is collected, used and processed.

A particularly important aspect of this accountability is ensuring that an organisation has data protection policies in place which provide an **appropriate level of security** over the personal data it holds.

The 'appropriate' level of security can depend on the specific risks an organisation faces, but some general measures which could help to demonstrate compliance include:

- measures to protect the **confidentiality** of personal data, eg, **encrypting** it
- measures to strengthen the **resilience** of data processing systems, eg, firewalls; anti-virus software
- checking that **consents** obtained meet GDPR requirements, and re-obtaining them where necessary
- **data minimisation** – safeguards to minimise the amount of data collected and the period for which it is stored
- HR-based measures, including **staff training** about data handling
- **internal audits** of data processing activities
- **regularly testing**, assessing and evaluating the effectiveness of technical and organisational measures for ensuring the security of data processing

The ICAEW IT Faculty's report The essential guide to GDPR also highlights that 'accountability' means not only that an organisation complies with the regulation but also that it must show how it complies

– for example, by documenting the security measures it has in place. GDPR also encourages a risk-based approach to data protection.

In the UK, the Information Commissioner's Office (ICO) recommends conducting a data protection impact assessment (DPIA), to help document the decision of data collection, usage and processing, and the reasons for them. (A DPIA is a process designed to help organisations systematically analyse, identify and minimise the data protection risks of a project or plan.)

Conducting a DPIA can also help an organisation ensure that it is only using the minimum of personal data necessary for any given purpose. By taking a risk-based approach and documenting how personal data is being used and processed, an organisation will also be able to demonstrate their approach to data protection if the need arises.

This includes explaining when and how the organisation uses encryption. The Data Protection Act 2018 and GDPR do not impose an obligation on organisations to use encryption. However, if encryption is not being used, then an organisation will be expected to demonstrate what other technical and organisational security measures it is using to protect personal data.

6.3.3 GDPR and acquisitions

So far, we have focused on the business implications of data protection within a single company. However, companies should also be aware of the potential data protection implications in an acquisition, or other business transactions.

Context example: Marriott International

In 2016 Marriott International acquired Starwood Hotels and Resorts. In September 2018, Marriott identified that the Starwood business had suffered database hacking over a long period of time, potentially as far back as 2014. As a result, the personal data of more than 300 million guests, worldwide, had been compromised. Although Marriott is based in the US, some of the customers affected are EU nationals, meaning the breach falls under the scope of GDPR.

In July 2019, the UK's ICO announced its intention to fine Marriott £99 million for alleged infringements of GDPR. The ICO commented that its investigation revealed that Marriott had 'failed to undertake sufficient due diligence when it bought Starwood, and should also have done more to secure its systems.'

Source: Ilan, D., Farmer, N. and Wales, T, *UK Regulator intends to* fine *Marriott £99 million for personal data breach, spotlighting M&A cybersecurity diligence*, Mondaq, 15 July, 2019, [Online], Available from: http://www.mondaq.com/uk/x/825660/Security/UK+Regulator+Intends+To+Fine+Marriott+99+Million+For+Personal+Data+Breach+Spotlighting+MA+Cybersecurity+Diligence [Accessed 5 August 2019]

Implications of data protection and GDPR in the context of mergers and acquisitions

As the Marriott example illustrates, purchasers need to review a target business's data protection compliance in their due diligence investigations.

Purchasers also need to consider how they will integrate acquired businesses with their own, and how this integration process could affect the holding and use of personal data.

However, data protection is not only an issue for purchasers. Sellers also need to prepare for a possible sale by reviewing their operational processes to ensure they will not breach any data protection laws when providing data to a potential purchaser (eg, do they have a right to share any personal data about employees or customers to potential purchases in the course of a deal, or should this data be anonymised?). Equally, sellers need to ensure that access to personal data is only given to those who need it (eg, by using virtual data rooms, with restricted access, as a means of providing data to potential purchasers).

7 Using information to develop competitive advantage

Section overview

- The notions of organisational learning and knowledge management indicate that knowledge should be seen as an important resource for an organisation and, accordingly, knowledge management as an important competence or capability.
- Increasing the amount and quality of data available to an organisation should help support strategic decision making within that organisation.
- In particular, improving the level of data an organisation holds about its customers should help the organisation understand their purchasing behaviour better, such that it can tailor its products and services to their wants (or needs) more closely.

You should already be familiar with the concept of knowledge management from the Business Strategy and Technology syllabus. However, it remains relevant here because knowledge management is becoming increasingly important in helping organisations sustain competitive advantage.

7.1 Knowledge management

Knowledge management refers to the set of business processes developed in an organisation to create, store, transfer and apply knowledge. Knowledge management increases the ability of the organisation to learn from its environment and to incorporate knowledge into its business processes. (Laudon and Laudon, Management Information Systems)

Knowledge management is a relatively new, but increasingly important, concept in business theory. It is connected with the theory of the **learning organisation** and founded on the idea that knowledge is a major source of competitive advantage in business.

Studies have indicated that 20–30% of company resources are wasted because organisations are not aware of what knowledge they already possess. Lew Platt, former Chief Executive of Hewlett-Packard, highlighted this when he said, 'If only HP knew what HP knows, we would be three times as profitable.'

In effect, knowledge management has three phases: capturing knowledge, recording knowledge and disseminating knowledge (across the organisation).

The importance of knowledge

As organisations become more complex, there is more knowledge to manage. Moreover, the importance of capturing and sharing it increases as job mobility increases. If staff leave, there is a danger that knowledge could leave with them if it has not been properly managed within the organisation.

Also, organisations' external environments – technology, competitors, markets – are changing rapidly so organisations need to ensure they have up to date knowledge about these to take account of the opportunities and threats they represent.

Knowledge is thus seen as an important **resource**, and knowledge management may in itself constitute a **competence**; it can certainly **underpin** many competences, and knowledge management should be seen as a strategy to achieve competitive advantage, for example through the sharing of cost reduction ideas across divisions, or through the diffusion of innovation.

Companies are now starting to use web technologies such as blogs and wikis for internal use to foster collaboration and information exchange between individuals and teams. Collaboration tools

from commercial software vendors (such as Microsoft SharePoint) can also be used to share information between individuals and teams in an organisation.

In a knowledge management system, an organisation will appoint **knowledge managers** who are responsible for collecting and categorising knowledge and encouraging other people in the organisation to use the available knowledge. The knowledge managers also monitor the use of knowledge in their organisation.

Some companies are now taking the idea of knowledge sharing one stage further and are adopting the practice of **knowledge brokering**. In knowledge brokering, companies look externally to find ways of improving internal business processes. In effect, knowledge brokering resembles benchmarking by allowing companies to find world-class solutions to problems rather than having to invent their own solutions.

For example, a bank faced frequent complaints from customers about the length of the queues in its local branches. The bank staff responsible for reducing queuing times identified three potential sources of brokers: amusement parks, supermarkets and department stores. In each of these environments, it is important to keep queuing times under control. In time, the bank worked with an amusement park and a supermarket to redesign layout of the windows in its branches and change the way it deployed staff between back office and customer-facing windows at busy times.

7.2 Organisational learning

Organisational learning is particularly important in the increasing number of task environments that are both complex and dynamic. It becomes necessary for strategic managers to promote and foster a **culture that values intuition**, **argument from conflicting views, and experimentation**. A willingness to back ideas that are not guaranteed to succeed is another aspect of this culture; there must be freedom to make mistakes.

The aim of **knowledge management** is to exploit existing knowledge and to create new knowledge so that it may be exploited in turn. This is not easy. All organisations possess a great deal of data, but it tends to be unorganised and inaccessible. It is often locked up inside the memories of people who do not realise the value of what they know. This is what Nonaka calls **tacit knowledge**. Even when it is made **explicit** (available to the organisation) by being recorded in some way, it may be difficult and time consuming to get at, as is the case with most paper archives. This is where knowledge management technology can be useful –for example, intranets, databases and other knowledge repositories.

7.2..1 Information, knowledge and competitive advantage

Information and communications technologies have reduced the **cost** of storing and transmitting information, but they have also increased organisations' **capacity** for storing, processing and communicating information.

As access to information becomes easier and less expensive, skills and competences relating to the selection and efficient use of information become increasingly important to organisations. This reinforces the idea that information and information management could become a core competence and a source of competitive advantage for an organisation.

The resource-based approach to strategy – discussed in the chapter Strategic analysis – highlights that a successful organisation acquires and develops resources and competences over time, and exploits them to create competitive advantage.

The ability to capture and harness corporate knowledge has become critical for organisations as they seek to adapt to changes in the business environment, particularly those businesses providing financial and professional services. Therefore, as we have already mentioned, knowledge becomes a strategic asset. And organisation-specific knowledge, which has been built up over time, is a core competence that cannot easily be imitated.

Therefore, knowledge management can help promote competitive advantage through:

- the fast and efficient exchange of information
- effective channelling of the information to:
- improve processes, productivity and performance
  - identify opportunities to meet customer needs better than competitors
  - promote creativity and innovation

However, the importance of meeting customer needs better than competitors means that organisations need to capture and analyse information about customers and potential customers rather than simply looking at internal processes.

Context example: EuroDisney

The following example illustrates that market understanding is as important as pure market research.

When Disney opened its EuroDisney resort near Paris, the company lost $921 million in its first year. However, the decision to enter the European market had been well supported by the research Disney had undertaken.

Figures showed a growing number of European visitors to US theme parks (suggesting European people like going to theme parks).

The more detailed choice of location had been based on modelling population figures, which showed 17 million people lived within a two-hour drive of the Paris site, and 109 million within a six- hour drive. These potential customer numbers were much greater than for theme parks in the US.

However, while the figures were encouraging, the launch of EuroDisney proved an expensive lesson in market understanding, rather than just market research.

Disney ignored the failure of amusement parks in France; it dismissed anti-Disney demonstrations as insignificant; and it ignored the fact that European holiday patterns are significantly different to those in the US. People in Europe have longer holidays, but spend less on each.

Perhaps crucially, marketing short-sightedness also led Disney to ban alcohol from EuroDisney. Clearly Disney's market research had overlooked the key aspect of French culture that the French like to drink wine at lunch time. Because Disney prevented them from doing so, customers voted with their feet and stayed away from the park.

In the same way that a company needs to know its customers and serve them well, a company also needs to engage with its suppliers. The more a company engages with its suppliers, the better the suppliers can provide vital inputs.

How a company can really get to know its customers, or its suppliers, is a key challenge facing businesses with millions of offline and online customers.

Our discussions of big data and big data analytics in the previous chapter also highlighted the potential value which organisations can gain from analysing large and complex data sets – in order, for example, to send tailored recommendations to customers' mobile devices, or to predict customer demand for products and thereby to adjust the quantities of inventory ordered and to adjust prices dynamically.

7.3 Knowledge management (KM) systems

Laudon and Laudon highlight that one apt slogan of knowledge management is: 'Effective knowledge management is 80% managerial and organisational, and 20% technology.'

In other words, the culture and patterns of behaviour in an organisation need to support knowledge management. IT cannot support knowledge management by itself. For example, in order for knowledge to be shared between teams, members from different teams have to be prepared to share it.

In terms of actually developing and implementing a KM strategy, there are five main steps to consider:

(a) **Support from senior management**. Senior management support will be needed not only to provide the necessary **resources** and to lead the development of a knowledge-based culture, but also because if senior managers are not seen to be supporting the strategy then other staff will not do so either.

(b) **Installing the IT infrastructure**. IT hardware and software will need to be acquired to ensure that the organisation has the capabilities to **capture, store and communicate knowledge**.

(c) **Developing the databases**. Advanced databases and database management systems may need to be developed (either 'in house' or 'in the cloud'), with the details of their design and structure being tailored to the type of knowledge the organisation is looking to capture.

(d) **Develop a sharing culture**. Knowledge is widely known to represent **power**, and staff are likely to want to hoard the knowledge they have already accumulated rather than to share it. A **culture** of **knowledge sharing** must be developed.

(e) **Capturing and using the knowledge**. Existing knowledge needs to be captured and recorded in the databases. Staff then need to be trained how to use the databases and encouraged to do so.

7.3.1 Potential issues in implementing a KM system

Structure and culture – The current structure and culture of an organisation may not be conducive to sharing knowledge; for example, if there is little communication between departments in an organisation, or if staff are reluctant to share knowledge for fear that it will reduce their power within the organisation. These inherent barriers will have to be overcome in order for the system to be successful.

Technological infrastructure – If an organisation does not have a suitable network which allows information to be stored and accessed, one will have to be installed before knowledge can be shared across the organisation. There may be significant costs associated with installing such a network.

Incompatible systems and sources of information – Problems could arise if some divisions or departments record data or information in systems which are incompatible with those used by other divisions or departments. Such a situation will mean that data or information must be transferred into a new common format before they can be shared, and there is a risk that errors or omissions could result from the resulting conversion process.

Equally, it is possible that some information is not stored in a digital form at all, and so the organisation will have to decide how this material can be indexed and archived such that it can be accessed when needed.

Resistance to change – Staff in different areas of an organisation may already have their own preferred ways of organising data. However, this may not be compatible with the common format in which data is held on the network. Staff may be reluctant to change their current practices, particularly if they are not given adequate training in any new systems or sufficient time to adapt to them.

7.3.2 IT and KM systems

Importantly, although there is an IT element to KM systems and their infrastructure, a KM strategy need not be IT-driven. **IT should support rather than dominate the strategy**. The **cultural aspects** of a KM strategy (particularly encouraging staff to share knowledge) are likely to be just as critical to its success as the IT elements.

Nonetheless, IT elements do play an important role in facilitating knowledge management. In this context, expert systems, databases and data warehouses all help to acquire and store information which can, in turn, be converted into knowledge.

7.3.3 Expert systems

An **expert system** is a computer program that captures **human expertise** in a limited domain of knowledge. Such software uses a knowledge base that consists of facts, concepts and the relationships between them and uses pattern-matching techniques to solve problems. For example, many financial institutions now use expert systems to process straightforward loan applications. The user enters certain key facts into the system, such as the loan applicant's name and most recent addresses, their income and monthly outgoings, and details of other loans. The system will then:

- check the facts against its **database** to see whether the applicant has a good previous credit record
- perform **calculations** to see whether the applicant can afford to repay the loan
- make a **judgement** as to what extent the loan applicant fits the lender's profile of a good risk (based on the lender's previous experience)
- **a decision is then suggested** based on the results of this processing

IT systems can be used to store vast amounts of data in an accessible form. A **data warehouse** receives data from operational systems, such as a sales order processing system, and stores it in its most fundamental form, without any summarisation of transactions. Analytical and query software is provided so that reports can be produced at any level of summarisation and incorporating any comparisons or relationships desired.

The value of a data warehouse is enhanced when **data mining** software is used. True datamining software **discovers previously unknown relationships** and provides insights that cannot be obtained through ordinary summary reports. These hidden patterns and relationships constitute **knowledge**, as described above, and can be used to guide decision making and predict future behaviour.

Datamining is thus a contribution to organisational learning. For example, the relationship between the weather and changes in people's purchasing habits in supermarkets can be viewed as knowledge discovery through data mining.

The concepts of 'analytics' and 'big data analytics' which have been mentioned on a number of occasions throughout this manual, develop these ideas further.

7.3.4 Databases and models

The way in which data is held on a system affects the ease with which that data can be accessed and then analysed. Many modern software packages are built around a database. A database provides a comprehensive set of data for a number of different users.

A database is a collection of data organised to service many applications. The database provides convenient access to data for a wide variety of users and user needs.

A database management system is the software that centralises data and manages access to the database. It is a system which allows numerous applications to extract the data they need without the need for separate files.

Databases can be used in conjunction with a variety of tools and techniques, eg, DSSs, EISs, data warehousing and data mining.

7.3.5 Data warehouses

Definition

Data warehouse: A data warehouse consists of a database containing data from various operational systems and reporting and query tools.

A data warehouse is a large-scale data collection and storage area containing data from various operational systems, plus **reporting** and **query tools** which allow the data to be analysed. The key feature of a data warehouse is that it provides a single point for **storing a coherent set of information** which can then be used across an organisation for **management analysis** and decision making.

Importantly, a data warehouse is **not an operational system**, so the data in it remains static until it is next updated. For example, if a supermarket introduces a customer credit card, the history of customers' transactions on their cards could be stored in a data warehouse so that management could analyse spending patterns.

However, although the reporting and query tools within the warehouse should facilitate management reporting and analysis, data warehouses are primarily used for **storing** data rather than analysing it.

A data warehouse contains data from a range of **internal** (eg, sales order processing system, nominal ledger) and **external sources**. One reason for including individual transaction data in a data warehouse is that, if necessary, the user can drilldown to access transaction-level detail. Increasingly, data is obtained from newer channels such as customer care systems, outside agencies and websites.

Maintenance of a data warehouse is an iterative process that continually refines its content. Data is copied to the data warehouse as often as required – usually daily, weekly or monthly. The process of making any required changes to the format of data and copying it to the warehouse tends to be automated.

The result should be a coherent set of information available for use across the organisation for management analysis and decision making. The reporting and query tools available within the warehouse should facilitate management reporting and analysis.

The reporting and query tools should be flexible enough to allow multidimensional data analysis, also known as **online analytical processing** (OLAP). Each aspect of information (eg, product, region, price, budgeted sales, actual sales, time period) represents a different dimension. OLAP enables data to be viewed from each dimension, allowing each aspect to be viewed by itself and in relation to the other aspects.

Features of data warehouses

A data warehouse is subject-oriented, integrated, time-variant and non-volatile.

(a) Subject-oriented

A data warehouse is focused on data groups, not application boundaries. Whereas the operational world is designed around applications and functions such as sales and purchases, a data warehouse world is organised around major **subjects** such as customers, suppliers, products and activity.

(b) Integrated

Data within the data warehouse must be consistent in format and codes used – this is referred to as **integrated** in the context of data warehouses.

For example, one operational application feeding the warehouse may represent sex as 'M' and 'F', while another represents sex as '1' and '0'.

While it does not matter how sex is represented in the data warehouse (let us say that 'M' and 'F' is chosen), it **must** arrive in the data warehouse in a **consistent, integrated** state. The data import routine should cleanse any inconsistencies.

(c) Time-variant

Data is organised by time and stored in time-slices.

Data warehouse data may cover **a long time horizon**, perhaps from 5 to 10 years. Data warehouse data tends to deal with **trends** rather than single points in time. As a result, each data element in the data warehouse environment must carry with it the time for which it applies.

(d) Non-volatile

Data **cannot be changed** within the warehouse. Only load and retrieval operations are made.

Advantages of data warehouses

Advantages of setting up a data warehouse system include the following:

(a) Enhances strategic decision making. The warehouse provides a single source of authoritative data which can be analysed using data mining techniques to support strategic decision making. Basing decisions on data (rather than having to rely on gut instinct) should also enhance the quality of decisions being made.

(b) Data quality and consistency. Having a single source of data available will reduce the risk of inconsistent data being used by different people during the decision-making process. This means managers should be able to have greater confidence in the accuracy of the data on which decisions are being made.

(c) **Saves time**. Data warehousing can enable faster responses to business queries, by storing data in an easily accessible central repository and enabling data to be retrieved from multiple sources. By providing users with data from a number of sources in one place, data warehouses mean that informed decisions can be made more quickly. Users won't need to spend time retrieving data from different sources.

In addition, managers and executives can interrogate the data themselves without relying on the IT department to generate reports for them.

Ultimately, the value of data warehouses is derived from the increases in revenues or reductions in costs which result from decisions made on the basis of the data provided by the warehouse.

Data warehouses have proved successful in some businesses for:

- quantifying the effect of marketing initiatives
- improving knowledge of customers
- identifying and understanding an enterprise's most profitable revenue streams

In this way, data warehouses (and data mining) allow organisations to use the data they hold to help improve their competitiveness.

Limitations of data warehouses

Some organisations find they have invested considerable resources implementing a data warehouse for little return. To benefit from the information a data warehouse can provide, organisations need to be flexible and prepared to act on what they find. If a warehouse system is implemented simply to follow current practice, it will be of little value.

Other limitations exist, particularly if a data warehouse is intended to be used as an operational system rather than as an analytical tool. For example:

- the data held may be outdated
- an efficient regular routine must be established to transfer data into the warehouse
- a warehouse may be implemented and then, as it is not required on a day to day basis, be ignored

Another important consideration is the quality of data in the warehouse. We have noted that one of the advantages of a data warehouse is that it improves decision making, but this will only be the case if the data within the warehouse is accurate. Therefore, it is important that data is 'cleaned' before it is loaded into the warehouse, but a **data cleansing** exercise will take time and require suitably skilled staff.

There is also an issue of **security**. The management aim of making data available widely and in an easily understood form can be at variance with the need to maintain confidentiality of, for example, payroll data.

This conflict can be managed by **encrypting** data at the point of capture and **restricting access** by a system of authorisations entitling different users to different levels of access. For this to work, the data held must be classified according to the degree of protection it requires; users can then be given access limited to a given class or classes of data. Encryption at the point of capture also exerts control over the **unauthorised uploading** of data to the data warehouse.

7.3.6 Data mining

While a data warehouse is effectively a large database which collates information from a wide variety of sources, data mining is concerned with the discovery of meaningful relationships in the underlying data.

Data mining software looks for hidden patterns and relationships in large pools of data. Data mining is primarily concerned with **analysing data**. It uses statistical analysis tools to look for **hidden patterns and relationships** (such as trends and correlations) in large pools of data.

The value of data mining lies in its ability to highlight previously unknown relationships.

In this respect, data mining can give organisations a **better insight into customer behaviours**, and can lead to **increased sales through predicting future behaviour**.

When a supermarket customer pays for their shopping using a loyalty card (see example about Tesco's Clubcard in the next section), the supermarket can create a record of the items the customer has bought. The purchasing behaviour of customers can be used to create a profile of what kinds of people the card holders are.

Data mining techniques could be applied to customers' purchasing information to identify patterns in the items which were purchased together, or what types of item were omitted from shopping baskets, and how the make-up of customers' baskets varied by different types of customer. The supermarket could then target its promotions to take advantage of these purchasing patterns.

In this way, by identifying patterns and relationships, data mining can **guide decision making**.

True data mining software discovers **previously unknown relationships**. The hidden patterns and relationships the software identifies can be used to guide decision making and to **predict future behaviour**.

In the chapter Strategic marketing and brand management, we considered how obtaining detailed customer information is an important element of **CRM**.

Obtaining detailed customer information allows a firm to identify customer needs and develop improved ways of meeting those needs, as well as targeting marketing campaigns to specific customers, bringing relevant new products or services to their attention.

Customer loyalty/reward cards can provide valuable information about the buying habits and patterns of customers, but more generally the process of gathering and storing data about customers and then analysing patterns is an application of data warehousing and data mining.

Interactive question 8: Data and knowledge

PBB is a UK university. PBB's management board has identified student performance as a critical success factor (CSF). PBB's management board has identified this CSF because it targets an area where it is currently underperforming compared to other UK universities.

PBB is aware of a nearby comparable university, KLN, which had considerable success when several of its departments worked together to improve student performance. KLN has a culture of sharing knowledge and a knowledge management strategy. PBB does not have a culture of knowledge sharing. Within PBB, knowledge is regarded as the personal property of the individual and very few of its staff are prepared to share their knowledge with any of their colleagues. PBB has an abnormally high level of staff turnover compared to other universities, nearly twice as high as that of KLN.

Student performance

Student performance is measured by PBB as the number of students who successfully complete their courses. Those students who do not are described as 'drop-outs'. The number of drop-outs is measured by the drop-out rate. PBB has access to data for all UK universities for student drop-out rates analysed by age and gender.

Drop-out rates vary greatly across PBB's academic departments. In some academic departments the drop-out rate is extremely high; in others it is very low, much better than the national average. Where the drop-out rate is much better than the national average, the departments have operated extensive schemes for student support. For example, students with personal problems can seek help from trained counsellors, students with financial problems have been helped to find part-time work and students with academic problems are given extra individual tuition from the academic staff.

In the departments where the drop-out rates are extremely high, none of these student support schemes is operating. The departments with the extremely high drop-out rates are not aware of how the departments with the very low drop-out rates support their students. The departments with very low drop-out rates are unwilling to share their knowledge about how to reduce the drop-out rates, as they have spent considerable time and effort developing their schemes and regard these as their own property.

PBB has not conducted any systematic analysis into its overall drop-out rate. Within its information systems, PBB has the following information about each of its students:

- Name
- Age
- Gender
- Address
- Educational record prior to joining PBB
- Educational record within PBB
- academic department

PBB is aware that many universities have successfully used data mining to assist them in managing student performance.

7.1 Many organisations integrate their CSFs into their performance management systems by converting them to key performance indicators (KPIs).

Requirements

Briefly explain, using examples, the advantages that PBB would gain by doing the same.

7.2 Advise PBB's management board of three benefits the university and its staff could expect to receive from the implementation of a knowledge management strategy.

7.3 Explain data mining and how the outputs of the analysis could be used by PBB to improve the student drop-out rates.

See **Answer** at the end of this chapter.

7.4 Analytics and business intelligence

In May 2013, ICAEW's Finance and Management Faculty published an article, *10 key business analytics and how they are used to drive value*.

The article highlights that the amount of data available to companies, generated either internally or externally, is greater than at any time in the past. Companies can use analytics to turn this data into insight and thereby improve decision making.

Web analytics – Analytics tools (like Google Analytics) allow companies to track the traffic on their website – for example: what search phrases people used, how they got to the page, what they were looking at and in which sequence, how long they stayed, whether they were converted into customers.

Such information is very useful to enable companies to track their website effectiveness and customer engagement. In turn, if companies can improve the effectiveness of their website and their engagement with their customers, this should help them achieve their strategic goals.

Customer analytics – Customer analytics enable companies to understand which customers are their most loyal, their most profitable or their most expensive to keep. Data rich companies such as telecom companies and retailers are now also looking at understanding customer lifetime value, and even identifying trigger points when customers are likely to cancel their contracts or shop at a rival company.

Predictive business analytics – In the simplest form, predictive analytics allow companies to use their data to forecast and predict future liquidity and cash flows as well as revenue and profit predictions. More sophisticated approaches use the cause and effect logic to understand, for example, the impact of increased customer satisfaction on future loyalty as well as financial performance. In one case, a bank found that even though most of its customers were happy, few actually generated a profit for the bank.

HR analytics – Given that people are important assets for companies, companies need to identify who is performing well, who is performing less well and who needs more support or training.

HR analytics can also be used to identify the best ways to recruit new talent, to monitor development activities, to identify skills gaps in an organisation, for succession planning, and to identify the drivers of staff satisfaction. Google used analytics to identify 10 factors which make a good manager, and it now uses this insight when recruiting and training managers.

Project analytics – Companies use project analytics to track whether projects are running on time and on budget, and also whether they are generating the desired outcomes. In many cases, simple project management software applications can generate most of the analytics which are required, although for more sophisticated project-specific analytics software may be required.

Process analytics – By contrast to project analytics which look at 'one-off' projects, process analytics are concerned with the day to day operations in a company. Process analytics are used to understand which processes are optimised and to identify processes that can be improved or changed to increase efficiency and effectiveness.

Traditional process analytics start with process mapping (often end to end) and an analysis of the effectiveness and efficiency of each of the process steps. Other approaches are TQM, Lean and Six Sigma, which allow companies to measure, analyse and optimise process performance.

Supply chain analytics – Supply chain analytics enable companies to optimise their supply chains; for example, by finding the most efficient delivery routes, the best locations for their warehouses or production plants, and the most intelligent storage approaches.

Supply chain analytics can also be used to analyse data from delivery routes to better understand fuel consumption, and to identify potential risks to the supply chain (for example, from disruption to road or air freight links).

Procurement analytics – The main benefits from procurement analytics will be generating significant cost savings in the purchase of goods and services, and reducing the business risks associated with those purchases. Procurement analytics allow companies to optimise, consolidate or standardise

purchasing and contracts, and enable companies to strategically source products and services at the right time, for the right price, and in the right quantities.

Marketing and brand analytics – Applying analytics to marketing and brand-building activities enables companies to understand the effectiveness of their marketing campaigns.

Digitalisation and e-commerce means that companies can track how many customers and how much business each marketing campaign has generated. Analytics allow companies to identify the most effective marketing channels and marketing strategies, for example. Companies can also use analytics to track brand awareness and brand engagement.

Big data analytics – Big data analytics refer to the ability to analyse larger quantities or more unstructured data (ie, data not in a database) such as keywords from conversations people have on Facebook or Twitter, and content they share through media files (photographs and videos).

The aim of big data analytics is to extract insights from unstructured or large volumes of data in order to help organisations make better decisions, as we discussed in the chapter Data analysis.

Context example: Human swarm

Morrisons

The supermarket chain, Morrisons, uses weather forecasts to predict customers' purchasing patterns.

It has analysed five years of sales data and has identified how sales patterns change in line with increases or decreases in temperature. Although people make purchasing decisions as individuals, overall trends in their purchases show that we act as a 'human swarm'.

When temperatures fall during the winter, purchases of 'warming' food such as soup, porridge and ready meals increase. Therefore, when the weather forecast shows a fall in temperature, Morrisons increases the amount of these 'warming' foods it ships from its central distribution centre to its stores.

Similarly, Morrisons has identified that when weather forecasts in summer predict three or more consecutive days of hot, dry weather, demand for barbecue-related foods increases significantly. By reacting to the weather forecast, Morrisons can not only control the quantities of different products it ships from its warehouses to its stores, but it can also ask its suppliers to change the volume of different products it supplies. For example, if hot weather is forecast, Morrisons asks its supplier of minced beef to switch from producing ready meals (such as cottage pie) to producing beef burgers (which will be used for barbecues).

Bravissimo

The lingerie and clothing retailer also uses local weather reports to change its online adverts in different parts of the UK as the weather changes. Bravissimo uses a software solution (called weather FIT) to enable it to tailor online adverts in real time to respond to local weather data.

In the three months of March to May 2013, Bravissimo reported a 600% growth in revenue from its online adverts compared to the same period the previous year.

Bravissimo's senior marketing manager commented: 'Using [weather FIT] to fine-tune our … advertising and promotions by taking into account local weather conditions really boosted sales in the crucial run-up to the holiday season'.

Context example: Tesco and customer insights

The ability to collect and analyse data has transformed Tesco from an organisation that **thinks** it knows what customers want to one that has the knowledge and insights into what customers prefer, and how these preferences keep shifting over time. Former Chief Executive Officer (CEO) Sir Terry Leahy stated 'We don't spend a pound or dollar on a store without talking to our customers – they are the best management consultants'.

An essential component of Tesco's performance data is its extensive customer knowledge gathered through its Clubcard loyalty programme, established in 1994 and now with over 14million users.

Although 'Clubcard' was ostensibly introduced as a loyalty programme, its main purpose for Tesco was to provide insights which would help managers improve the way they run the company.

Ultimately, loyalty programmes which are solely used to target customers with discounts and offers are self-defeating, because they reduce the margins which a company earns on its sales. But loyalty programmes can be beneficial to companies when:(a) the potential to generate competitive

advantage from the data is recognised, and (b) the capability to mine data, and to make sense of and apply the insights gleaned from that data, is embedded into the organisation as a capability and focus.

It was the decision-support 'potential' of the data that convinced the senior leaders in Tesco to endorse the idea of a loyalty programme.

When Tesco began its Clubcard programme, it outsourced the data analysis to Dunnhumby, an organisation that specialises in data analysis. Tesco realised it didn't have the skills to systematically analyse the mass of data gleaned from its customers, and therefore left it to Dunnhumby to develop the strategy for the data analysis.

However, as it increasingly began to realise that analytics are an important driver of success, Tesco wanted to improve its in-house competences to analyse customer and performance data. Therefore, it created an internal team responsible for analysing data and extracting insights. Tim Mason, Tesco's marketing director and chairman of Tesco.com, explained:

These people are geographers, statisticians who had spent a lot of time applying those skills to understanding how customers would behave. They could crunch through the stuff that came from the Club card, see the patterns in it and they could start to help the management of the organisation understand what was going on, but also point towards what should be done about it. They had to find the data, and present it in a way that makes the decisions stark, and clear.

Tesco ensures it maintains the ability to develop common-sense responses. It aims to create processes that enable relevant insights to be used to improve customers' experience.

Presentation of data

Data is presented in different ways in Tesco, such as through insightful performance reports and organisational intelligence applications that provide dashboards and performance reports to the management team. Most reporting is scheduled weekly or monthly. These dashboards and reports allow executives to drill down into the data and perform high-level analysis of their own.

Decisions based on customer insights

Tesco's objective is to never make any changes without first talking to its customers. It also ensures it runs experiments to test ideas before implementing them on a wider scale. The performance data plays a vital role in this process and has enabled Tesco to take new ideas and offers to smaller groups of customers, while using the remaining customers as control groups. This takes a lot of risk out of innovative ideas.

In many ways, the performance and customer data has become a powerful laboratory to test whether new ideas work or not. Tesco's performance information, especially its Clubcard data, is not just about passively observing trends; it is a massive laboratory of customer behaviour. If it launched a new initiative, but it was doing something wrong, it knew about it in days. Equally, if it was doing something right, the new initiative could be implemented nationwide in weeks.

Tesco's marketing director highlighted that, as a company, Tesco has moved from being intuitive to being analytical. 'This is a much more complicated business than it used to be. We don't forget our intuition, but better data led to better thinking, and our data give us the confidence to ask the right questions. You can have all the data you want, but the key is to use them to ask the right questions.'

For example, Tesco is now able to conduct experiments to understand whether new product lines, innovative offers, and price reductions have the desired effects. Using its customer data allows Tesco to track the response immediately, which takes a lot of guesswork out of organisational decision making.

Abridged from a case study in ICAEW Business performance management community: *Driving customer insights from data at Tesco*

However, it is not only large companies, with large IT budgets, like Tesco, that are able to make use of big data. Current technology means that small companies can also benefit from big data analytics.

For example, consider a retailer with two physical shops and a website selling goods. Each shop has a CCTV camera which records footage for crime prevention purposes. If the company buys (some relatively inexpensive) pattern recognition software, then the CCTV footage can be turned into customer analytics. The software can use the data from the camera to provide an analysis of customer footfall, and which areas of the shop people go to, what products they look at, and the conversion rates from looking at a product to buying it.

The company could also use tools such as 'Social Mention' which allows it to track comments made about it on social media, and even provides an analysis of those comments (eg, whether they are positive or negative).

7.4.1 Business intelligence

Business intelligence (BI) refers to technologies, applications and practices for collecting, integrating, analysing and presenting business information.

Analytics relates to the use of (a) data and evidence, (b) statistical, quantitative and qualitative analysis, (c) explanatory and predictive models, and (d) fact-based management to drive decision making.

Together, they include approaches for gathering, storing, analysing and providing access to data that helps users to gain insights and make better fact-based business decisions, to improve performance, to help cut costs or to help identify new business opportunities.

Examples of BI and analytics applications include:

- measuring, tracking and predicting sales and financial performance
- budgeting, financial planning and forecasting
- analysing customer behaviours, buying patterns and sales trends
- tracking the performance of marketing campaigns
- improving delivery and supply chain effectiveness
- CRM
- risk analysis
- strategic value driver analysis

Overall, a company also needs intelligence about its business environment to enable it to anticipate change and design appropriate strategies that will create business value for customers and be profitable in new markets and new industries in the future. Not only does a company have to anticipate the future, but it also needs the capability to react to that future successfully. (This reiterates the point we noted in section 3.8 earlier, that the speed and effectiveness with which an organisation reacts to opportunities and threats could be a dynamic capability for it.)

7.5 Information management in the supply chain

One of the key areas in which information can help generate competitive advantage is the supply chain, and supply chain management, which we discussed in the chapter Strategic implementation of this Workbook.

In relation to supply chain management, Edward Davis and Robert Spekman refer to the notion of the **'extended enterprise'**. This is a concept in which a dominant enterprise 'extends' its boundaries to all or some of its suppliers, developing collaboration within the supply chain. Davis and Spekman argue that organisations can gain competitive advantage through developing collaborative supply chains.

The transition from conventional supplier/buyer relations to an extended enterprise based on collaboration can be seen in the following steps:

Open market negotiations: Price-based discussions and adversarial relationships Cooperation: Fewer suppliers, information sharing, longer-term contracts Coordination: Information linkages, workflow linkages, EDI exchange Collaboration: Supply chain integration, joint planning, technology sharing

In this way, Davis and Spekman argue, firms can achieve sustainable competitive advantage through:

- achieving and maintaining lowest costs
- dealing with changing customer requirements that demand an increasing number of new and innovative products and services

Supply chain management is not only about cost reduction, but also about looking for revenue- enhancing opportunities.

Davis and Spekman's model highlights the importance of information flows within the extended enterprise. The model relies on connectivity between the supply chain partners, with seamless and transparent information flows between them.

7.5.1 Bullwhip effect

We have just suggested that supply chain management and networks should involve companies working together to meet customers' needs more effectively. In theory, collaboration and connectivity should enable this: customers order products, the vendor keeps track of what is being sold and orders enough materials or inputs from supplier to meet customers' demand and replenish inventory levels in line with expected future demand.

However, in practice, the supply chains are not always this coordinated. Suppliers, manufacturers, sales people and even customers often have an incomplete understanding of what the real demand is. These dynamics create inaccuracy and volatility in production levels, and these (inaccuracies and volatility) increase for operations further upstream in the supply chain.

This increase is known as the bullwhip effect, because the increasingly large disturbances in the chain as they work their way to the end resemble the oscillations in a whip when it is cracked.

Each group in the supply chain (suppliers, manufacturers, sales staff) only has control over part of the chain, but the decisions they take (for example, ordering too much or too little) affect production or inventory levels throughout the whole chain. Furthermore, each group in the chain is influenced by decisions that others are making.

We can illustrate the effect using a very simple model of a supply chain, in which all the producers in the chain work on the principle that they keep one month's inventory in stock at any time. In the model, market (customer) demand has historically been running at 100 units per period (prior to period 1). However, demand starts to fluctuate from period 2. The bullwhip effect can be seen by the fact that the producer and intermediate supplier's monthly production levels fluctuate increasingly more than market demand, in response to changes in market demand.

Period	Customer	Final producer		Intermediate supplier	
	Demand	**Production**	**Inventory**	**Production**	**Inventory**
1	100	100	100	100	100
2	95	90 (*)	95	80	90
3	95	95	95	100	95
4	100	105	100	115	105
5	100	100	100	95	100

* Production (90) = Closing inventory (95) + Demand (95) – Opening inventory (100)

Although the bullwhip effect in our model is simply caused by movements in and out of stock working their way up the supply chain, the effects can be magnified by problems of communication or coordination in the supply chain. This can be illustrated by the story of a car manufacturer which found itself with surplus inventories of green cars. To help get these sold, the car manufacturer's sales department offered special deals on green cars, so demand for them increased. However, the production departments were unaware of the promotion, and so when they saw the increase in sales they increased the production of green cars.

This simple 'car' example highlights one of the key problems behind the bullwhip effect: each operation in the supply chain only reacts to the orders placed by its **immediate customer**, but they have little overview of what is happening throughout the chain as a whole.

Therefore, in order to improve supply chain performance (and reduce the bullwhip effect) organisations need to improve the coordination of all the activities in the chain and the **knowledge sharing throughout the supply chain**. For example, if retailers make information on sales available to their suppliers, suppliers are more aware of movements in final customer demand and manage production accordingly.

In this context, one way to reduce the bullwhip effect is through better forecasts. However, a more important solution is to make sure that the strategies of all the firms in the supply chain are harmonised, and one way of doing this is through vendor-managed inventory.

7.5.2 Vendor-managed inventory (VMI)

One way of reducing fluctuations in demand and production throughout the supply chain is to allow an upstream supplier to manage the inventories of its downstream customer. This is known as VMI.

Under a VMI model, the (downstream) buyer of a product provides information about customer demand to the (upstream) supplier of that product, and the supplier manages production levels in order to maintain an agreed inventory of the product to meet demand.

VMI encourages a closer relationship and understanding between buyer and supplier, and it helps reduce both the levels of inventory in the supply chain and the risk of stock-out situations. Because the vendor is responsible for supplying the buyer when items are needed, this removes the need for the buyer to hold significant levels of safety stock.

However, a crucial element in VMI working effectively is the use of EDI between the buyer and supplier; for example, so that the supplier knows the quantity of a product the buyer has sold to end- user customers. Effective VMI also uses statistical methodologies and demand-planning tools to help forecast and maintain the correct levels of inventory in the supply chain (taking account of variables such as promotions or seasonality, for example).

Integrated supply chain management packages provide web-enabled visibility to suppliers so that they can review the on-hand inventory at their buyers' warehouses. The packages also allow buyers and suppliers to calculate buffer quantities, and when the buffer level is reached this triggers a new order from the supplier.

A crucial difference between a VMI system and traditional supply chain arrangements is that the vendor receives data from the buyer rather than purchase orders. Instead of the downstream buyer making purchase orders and 'pulling' supply through the system, the upstream supplier now initiates the order (based on the purchase information they receive) and they 'push' supplies through the system.

7.6 Big data and digitalisation in knowledge-based organisations

Our discussions of big data in the chapter Data analysis, coupled with our discussions of knowledge management in this chapter underline how knowledge – and the use of technology to support knowledge creation – are becoming increasingly important components of organisations' potential competitive advantage.

The increasing competitiveness of the global economy means that productivity gains or product improvements made by one company are often rapidly eliminated by their competitors' response.

In this respect, a company's process of **innovation** – and its ability to derive value from the information it has about products and markets – is likely to be critical to maintaining its competitive advantage in the face of a constantly changing market and economic environment. (This also echoes the idea of dynamic capabilities we discussed in the chapter Strategic analysis.)

Equally, in the 'information society' which exists today, information is one of the most valuable assets which organisations have, and information management and knowledge management are also likely to be essential parts of an organisation's competitive success, because they play a key role in value creation and productivity.

7.6.1 Knowledge-based organisations

Many organisations focus primarily on the routine tangible and observable activities that they carry out on a daily basis.

However, knowledge-based organisations also focus on two related processes which underlie these primary processes: the effective **application of existing knowledge**, and the **creation of new knowledge** to produce economic benefits. The success of knowledge-based organisations relies on their intangible assets – such as research, design, development, creativity, learning and human capital.

Knowledge-based organisations have four goals in relation to knowledge management:

(a) to ensure that knowledge from one part of an organisation is applied to activities in other parts of the organisation

(b) to ensure that knowledge is shared over time so that the organisation benefits from past experience

(c) To facilitate people from different parts of the organisation collaborating to create new knowledge

(d) to provide opportunities and incentives for experimentation and learning

As we would expect, knowledge creation and knowledge sharing are key features of a knowledge- based organisation. And while it is important that knowledge is shared within an organisation – for example, between different departments – organisations are also realising that knowledge can often also be gathered and shared as a result of interactions with customers, suppliers, and possibly even competitors.

In this respect, initiatives such as **co-creativity** and **crowdsourcing** have been important for the creation and sharing of knowledge, as we discussed in the chapter Strategic marketing and brand management.

However, while technological developments such as data warehousing and data mining have already helped to promote knowledge management in organisations, and the advent of Web 2.0 technologies has helped organisations gather more information about customers, the volume and variety of 'big data' means it has the potential to act as a source of even more knowledge to be created and shared.

In this context, big data presents two key challenges to organisations:

(a) **Information strategy –** Organisations need to harness the power of information. Big data is providing new ways to leverage information, but organisations need to be able to take advantage of them if they are going to be able to use the information to generate growth. How will they harness big data to improve strategic decision making – for example in evaluating potential new investments?

Organisations also have to have the infrastructural capacity to manage the **volume**, **variety and velocity** of the data available – and to process it – in order to maximise its value as a source of information and knowledge.

(b) **Data analytics** – Organisations need to be able to draw insights from large and complex data sets, in order to understand and predict customer behaviours, and to improve customer satisfaction or to drive innovation.

7.6.2 Digitisation and business value

When considering the potential impact of digitisation on business, it is also important to acknowledge the point highlighted in McKinsey & Company's report: *Finding your digital sweet spot*. This report argues that 'while online sales, social networking and mobile applications have received most of the buzz when it comes to digital', the greatest bottom-line impact may come from cost savings and changes beyond the interface between company and customer. If organisations focus too narrowly on the impact of digitisation on distribution channels only and the end-user customer interface, they will only gain a small proportion of the value that digitisation could provide.

As such, McKinsey's report suggests that technology (and digital transformation, which we discussed earlier in this chapter) can drive business value in four different ways:

- Enhanced connectivity
- Automation of manual tasks
- Improved decision making
- Product or service innovation

Tools such as big data analytics, apps, workflow systems and cloud platforms – all of which can create business value – are too often applied selectively to certain parts of the organisation only, often around sales and marketing. However, they could also be used, equally beneficially, across a much wider range of activities:

(a) Connectivity with customers, colleagues and suppliers

- Customer experience – Seamless, multi-channel experience; 'Whenever, wherever' service proposition
- Product and service innovation – New digital products and services; co-creation of new products

(b) Decision making – based on big data and advanced analytics

- Enhanced corporate control – Improved real-time MISs, supporting improved decision making

(c) Innovation of product, business models and operating models

- Distribution – Digital augmentation of traditional distribution channels
- Marketing and sales – Digital marketing; improved targeting with greater customer insights
- Fulfilment – Digital fulfilment; virtual servicing and administration

7.6.3 Digitisation and the internet of things

More generally, there are a number of ways in which organisations can make use of digitisation and the information being created through the 'internet of things', as we have discussed in the chapter Strategic analysis.

Information and analytics

Monitoring behaviour – When products are embedded with sensors, companies can track the movements of the products and business models can be fine-tuned to take advantage of this detail. For example, insurance companies offer to install location sensors in customers' cars. These capture data on how well a car is driven, as well as where it travels. As a result, prices can be customised to the actual risk associated with operating the car, rather than being based on proxies such as a driver's age, gender and place of residence.

Similarly, **RFID tags** on products moving through the supply chain can be used to improve inventory management and to reduce working capital and logistics costs.

Situational awareness – Logistics managers for freight companies can use information about traffic patterns, weather conditions and vehicle locations to make adjustments to their vehicles' routes in order to reduce the risk of delays.

Decision analytics – Retail companies can monitor data from thousands of shoppers as they move through stores. Sensor readings and videos note how long shoppers spend at individual displays, while the stores also have information about what customers ultimately buy. Simulations based on the sensor readings, coupled with purchase records, can be used to increase revenues by optimising store layouts.

In relation to healthcare, sensors can be fitted to patients with heart problems and can monitor key indicators such as heart rate, rhythm and blood pressure which could give medics early warning of conditions which could otherwise lead to unplanned hospitalisation and emergency treatment costs.

Automation and control

Process optimisation – Sensors on production lines provide data about temperature, pressure or ingredient mixtures (for example) to computers which analyse the data and then send signals back to the production line to adjust the process – for example, to reduce the temperature if it has become too high. Similarly, sensors can be used to adjust the position of an object as it moves down an assembly line to prevent damage to the object, or the process jamming.

Resource consumption – 'Smart meters' can provide energy customers with visual displays showing their energy usage and the real-time costs of providing it. Equally, however, 'smart meters' provide suppliers with real-time information about the amount of energy being used across a network, so that they can manage the network more effectively in response to levels of demand.

Summary

Tick off

- Information systems are necessary for an organisation to have the information it needs for strategic planning, and then to assess whether its objectives and targets are actually being met.
- Although IS/IT are often used to support business strategy, they may help determine business strategy (eg, e-commerce) and provide a source of competitive advantage in their own right (eg, data mining and CRM; analytics and inventory management; knowledge management and organisational learning).
- The amount of data and information organisations are processing means they need increased storage capacity. This has been one of the main factors behind the growth of cloud computing. Cloud computing provides organisations with the flexibility to increase their data capacity as required. It also improves accessibility (to data) for employees around the world.
- Managers need information for three main reasons: to make effective decisions, to control the activities of their organisation, and to coordinate the activities of the organisation.
- Management accounts are an important source of information for managers. For example, management accounts can provide information on costs and costing, prices and pricing, budgets, and variances.
- Management accounting tools can also be valuable in evaluating business strategies or elements of business strategies. Useful tools include: breakeven analysis, limiting factors, expected values, activity-based costing, transfer pricing, and the balanced scorecard.
- A key feature of an organisation's management information systems is that they enable the organisation to measure its performance in relation to its critical success factors (CSFs). An organisation should set its KPIs to measure performance in relation to its CSFs.
- Different types of information system must meet the information requirements of different levels of management within an organisation. Transaction processing systems (TPS) provide operational level data. Management information systems (MIS) summarise TPS data at a tactical level.
- Executive information systems (EIS), management information systems (MIS) and decision support systems (DSS) could be used to provide summarised information at strategic level.
- An important consideration for managers is how to integrate information from different systems. Enterprise applications (eg, enterprise resource planning systems, supply chain management systems, or customer relationship management systems) span different functional areas and focus on executing business processes across the organisation.

Although information in general is seen as a valuable resource for organisations, when evaluating a new information system an organisation should consider the value of the information compared to the costs associated with using it (ie, cost-benefit analysis).	☐
Information is ultimately only useful to managers or staff if it adds to their understanding of a situation. The qualities of good information can be summarised by the mnemonic 'ACCURATE': accurate, complete, cost-beneficial, user-targeted, relevant, authoritative, timely and easy to use.	☐
The increased reliance on information systems in organisations increases the potential impact of cyber risks (eg, viruses; hacking). In turn, this increases the strategic importance of cyber security within organisations, and the need for either internal or external assurance over the security of their systems and the integrity of the information produced by them.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the benefits and problems of digital transformation? (Topic 1)
2.	What do managers use management accounting information for? (Topic 2)
3.	What are the strategic benefits of management information systems? (Topic 3)
4.	What assurance might an organisation seek over its information and information systems? (Topic 5)
5.	What practical steps can an organisation put in place to better manage cybersecurity risk? (Topic 6)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
1 MMM	In this question you are asked to read through the scenario to understand the information requirements of the company in light of recent over or under-charging of clients. Although the company currently provides management accounting information to the board, you are asked to identify additional information to help plan and control the business. Review the characteristics of board level information in this chapter and then apply these to the scenario to identify specific information requirements.
2 FDS Co	This is a multi-part question looking at different aspects of information. The scenario focuses on discussions around the introduction of a customer profitability reporting system. The CEO wants to know where the information will come from and how it will be collected, as well as what the costs and benefits of the reporting system would be. As is often the case with SBM&L questions, the emphasis is on demonstrating application of knowledge to the scenario and commercial awareness.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Self-test questions

Answer the following questions.

1 MMM

MMM is an advertising agency specialising in work for the hotel industry. MMM has no formal mission statement or strategy. However, the management board agrees that MMM should grow, while remaining profitable as it always has been.

MMM's market niche is small, and competition with the sector is intense. MMM is unaware of the total size of its market niche, but MMM believes that the market is growing. Within its market, BBB estimates it is the second or third largest company. MMM thinks it wins most of its work because of the high quality of its output, but thinks sometimes price is the determinant for securing a new client.

MMM employs 15 staff, but it has always found it difficult to attract sufficient staff. MMM sometimes has to turn down work due to a lack of staff. It passes such work on to other advertising agencies. When this happens, MMM earns commission on the work it has referred. However, due to the seasonal nature of the hotel industry, there are times when MMM has surplus capacity. The management board believes MMM could increase its profit if it increased the number of its staff in order to accept some of the work that it currently turns down.

MMM's accountant provides management accounting information to the management board to support planning and decision making. This consists of budgetary control and standard costing information. The accountant produces budgetary control monthly reports which are very detailed and show every expenditure over £25. The annual budget is flexed each month to reflect that month's level of activity. The accountant produces very detailed monthly variance reports relating to labour, variable overheads and fixed overheads. The accountant produces a monthly profit figure.

Work undertaken for clients is priced by adding a standard uplift to total cost. A blanket overhead recovery rate is used in arriving at total cost. On occasion, some of MMM's clients have complained that they have been charged too much. However, on other occasions MMM believes that it may have undercharged its client.

The management board has stated that it 'urgently needs additional information to support its planning and decision making'. A member of the management board attended a recent seminar which discussed benchmarking and is investigating whether this technique could assist MMM.

Requirement

Advise MMM's management board what additional information it needs to support its planning and decision making.

2 FDS Co

FDS Co installs irrigation systems. Its customers include farmers, local government bodies, sports centres and building contractors. Its annual sales turnover is currently £25 million, and annual pre-tax profit is £1.2 million. The company is currently working at close to capacity, and its activities are restricted by a shortage of skilled engineers to install and maintain the pumping equipment for the irrigation systems.

Prices for the installation of irrigation systems are negotiated between customers and sales representatives of FDS. The sales representatives have authority to offer discounts on price in order to win large contracts or in return for more favourable payment arrangements.

The installation of irrigation systems typically takes several months for large contracts, and FDS usually sets up a site office on the customer's premises with a compound for holding system parts and other inventory. Delivering inventory to a site can be difficult, especially when the customer is a farmer in a remote location.

Sports centres often insist on minimum disruption to sporting activities during the installation of a new irrigation system. This can limit the size of the site office and inventory compound, which sometimes delays progress on a contract when the installation team has to wait for more inventory to be delivered. The installation teams fill in time sheets on a daily basis.

The management accountant of FDS is not satisfied with current reporting arrangements and thinks that some types of contract are much more profitable than others. It seems likely, for example, that farmers negotiate much better prices than local government bodies (such as local councils). Some contracts are more complex and difficult to negotiate than others, and winning a contract from a local government body can take much longer than contract negotiations with other customers.

The management accountant thinks that the company would benefit from the introduction of a customer profitability reporting system, where the profitability of each type of customer is measured and assessed separately. A benefit of this type of reporting system is that FDS should be able to put more resources into selling to more profitable types of customers, thereby helping to increase the company's profitability.

The management accountant is particularly concerned that as FDS is working close to its capacity there is a danger it could turn down contracts (due to lack of capacity) which would have been more profitable than contracts it has accepted.

This issue has been highlighted recently as FDS has been asked to undertake three new installations, but only has sufficient resources to carry out two of them.

	Sports centre	Farm	Building contractor
Basic price (£)	200,000	200,000	200,000
Discount negotiated	4%	5%	3%
Installation team time budgeted (@ £1,500 per day)	56 days	50 days	45 days

The inventory delivery costs for the sports centre and the building contractor's installations were expected to be the same, but the costs for the farm installation were expected to be £25,000 higher. All other costs were expected to be the same for the three contracts. FDS has not yet decided which two contracts to accept.

Despite the management accountant's concerns about the current reporting arrangements, the CEO is not convinced that a customer profitability reporting system would be useful for FDS. The CEO wants to know where the information will come from and how it will be collected, as well as what the costs and benefits of the reporting system would be.

Requirements

2.1 Discuss the information requirements for a customer profitability reporting system within FDS and where the data for this system might be obtained.

2.2 Discuss how the information in a customer profitability reporting system might improve management control and decision making within FDS.

2.3 Explain what the direct and indirect costs of obtaining data and producing information for this system might be, and how the value of such a system should be assessed.

3 CMA Supermarkets

The board of CMA Supermarkets is considering an upgrade of its company-wide IT system. The company has been opening new supermarket stores at a rapid rate in recent years, and has ambitions to rival the established supermarket chains in its country. The board believes that CMA could gain a significant competitive advantage from having a unified corporate database and from replacing its bar code technology with RFID, the radio frequency technology for labelling and identifying inventory.

The management accountant at CMA has been asked to explain to the board how a new network system and RFID technology may help to improve the management accounting system within the company, and also the company's performance.

At the moment, management accounts are prepared for each individual store, and monthly sales and profitability reports are presented to the store manager. Regional reports and a national report on company performance are also prepared each month, and presented to senior management and the board.

Because the company is trying to increase market share rapidly, it keeps its prices as low as possible and, whereas rival companies achieve a gross profit margin of about 55% on its sales, CMA's average gross margin is slightly below 50%.

In addition, a number of CMA's stores have reported an increase in out of stock products in recent weeks. The store managers are concerned that if customers keep finding items out of stock they will stop shopping at CMA and will revert to one of the established supermarket chains.

The management accountant thinks that new technology will help to improve profitability and will influence the nature of performance reporting systems. However, the benefits of improved IT will only be obtained if there is a radical rethinking of how information is used within CMA.

Requirements

3.1 Explain how RFID technology for tracking inventory and inventory movements may help to improve the quality of management information in CMA Supermarkets, and may also help to improve CMA's operational performance.

3.2 Assess the changes which may be required to performance reporting in CMA Supermarkets in order to obtain the greatest value from a new IT system and RFID technology.

3.3 Suggest how the IT system for a supermarket might exploit information about individual customers to improve sales and profits.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

1.1 Strengths

Operations – The owners have developed a considerable income stream by charging for their respected consultancy advice about antiques.

Service – The owners have developed a national reputation in the antiques trade and their experience has allowed them to build up a loyal following of repeat customers.

Firm infrastructure – The business operates from a large modern shop in a fashionable area, which makes its premises very valuable. If the owners sold the shop they could realise a substantial capital gain.

Human resource management – The business is run by the owners, and their experience in the antiques trade, and their reputation as experts, is a valuable asset for GLS.

Weaknesses

Inbound logistics – The inconvenience of the shop's location may mean that people with antiques to sell may take them to another antiques dealer rather than bringing them to GLS.

Operations – The location of the shop is not convenient for potential customers (antique traders and collectors) to visit, and the people who live nearby are not interested in buying antiques.

The owners are unable to attend antiques fairs because they need to be physically at the shop to keep it open.

Outbound logistics – The inconvenience of the location may also be a weakness in relation to customers buying antiques; for example, a collector may choose not to buy an item due to the difficulty of transporting home, or GLS may have to bear the cost of transporting customers' purchases to their homes.

Security costs have also increased significantly in recent years, and these costs are presumably related to the cost of storing antiques at the shop. If these security costs continue to rise, storing antiques in the shop may become a weakness.

Marketing and sales – The owners themselves believe that the location of the shop restricts the success of the business.

However, at the moment GLS's website is very basic, and although a number of people have visited it there is no scope for them to buy anything through the website.

Firm infrastructure – The fixed costs relating to the shop premises have increased sharply over the last five years. This is likely to be a contributing factor to the fact that the business made a loss for the first time in the last year.

Human resource management – There appear to be no succession plans in place for when the owners retire. Given that they have been running the business for over 30 years it is likely they will be approaching retirement age soon.

Technology development – The business has only recently set up a very basic website. As we have already noted, it does not have any e-commerce capabilities.

Note: A useful way of approaching this question would be to consider how the introduction of e-commerce will help address some of the weaknesses of GLS's operations which were identified in part (a), or to build on some of its existing strengths. However, note that, as in part (a), the question requires you to link your answer to the value chain, so it would be sensible to use value chain functions as headings for your answer.

Operations – The main impact of introducing e-commerce is that GLS is no longer reliant on its current shop as a physical site for their business. GLS will still need a site where it can store antiques, and it is likely to retain some kind of shop or showroom where the owners can make face to face sales. However, this can be moved to new, cheaper premises, for example an out of town location which should also be easier for antique traders to get to.

Outbound logistics – The new location should provide a more convenient base from which to distribute the antiques, and it should also help to reduce the insurance and security costs relating to storing the antiques.

Marketing and sales – E-commerce should increase the geographical reach of the business, and so should increase sales. Potential customers who previously couldn't visit GLS's shop (perhaps even international customers) can now search the website to look for items they may want to buy (and then also buy them online if they want to).

Firm infrastructure – The reduction in overheads and potential for increased sales should allow GLS to return to profit. The owners will also receive an injection of cash from the proceeds of the sale of the shop, which should cover the costs of the website upgrade.

Human resource management – Once the website is running, the owners will be able to reduce the opening hours of their 'bricks and mortar' shop, which will give them more opportunity to attend the antiques fairs which they have previously been unable to attend.

Technology – Once the website starts becoming a source of income for the business, then technology becomes a much more important aspect of its value chain. In effect, the website could become GLS's main 'shop'.

Procurement – As the website increases the geographical reach of GLS's customers, it may mean that the supply of antiques into the business also increases as more and more people become aware of it.

Answer to Interactive question 2

2.1 Answer to 2.1:

WORKINGS

(1) Fixed production costs absorbed per unit

$$= \frac{\text{Budgeted fixed production costs}}{\text{Budgeted production}}$$

$$= \frac{110{,}000}{2{,}200}$$

= £50 per unit

Therefore full cost (absorption cost) per unit = £50 + 70 = £120

(2) Under-/over-absorption of overheads

	July	August
Actual production	2,000	2,500
Expected production	2,200	2,200
(Under-)/over-production	(200)	300
Fixed costs per unit	£50	£50
(Under-)/over-absorption	(£10,000)	£15,000

(a) **Income statements – absorption costing**

		July		**August**
	£	**£**	£	**£**
Sales (£150 per unit)		225,000		450,000
Cost of sales:				
Opening inventory	Nil		60,000	
Production	240,000		300,000	
Less closing inventory	(60,000)		Nil	
		(180,000)		(360,000)
Gross profit		45,000		90,000
(Under-)/over-absorption		(10,000)		15,000
		35,000		105,000

(b) **Income statements – marginal costing**

		July		August
	£	£	£	£
Sales		225,000		450,000
Cost of sales				
Opening inventory	Nil		35,000	
Production	140,000		175,000	
Less closing inventory	(35,000)		Nil	
		(105,000)		(210,000)
Contribution		120,000		240,000
Less fixed costs		(110,000)		(110,000)
Net profit		10,000		130,000

2.2 **Difference in profits**

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	July			August
	£			£
Absorption cost profit	35,000			105,000
(Increase)/decrease in inventory and fixed costs charged against sales		(25,000)	25,000	(500 × £50)
Marginal cost profit		10,000	130,000	

Profits are different under each method due to the fixed costs that are included in closing inventory with absorption costing.

Answer to Interactive question 3

3.1

Overhead cost	Cost driver
Set-up costs	Number of set ups
Materials handling costs	Number of times materials handled
Ordering costs	Number of orders
Engineering costs	Number of spare parts required

$$\text{Alpha} = \frac{[(20/100) \times 25{,}000]}{500} = £10.00/\text{unit}$$

$$\text{Brave} = \frac{[(15/100) \times 25{,}000]}{300} = £12.50/\text{unit}$$

$$\text{Echo} = \frac{[(30/100) \times 25{,}000]}{400} = £18.75/\text{unit}$$

$$\text{Oscar} = \frac{[(35/100) \times 25{,}000]}{200} = £43.75/\text{unit}$$

Material handling costs per unit =

$$\text{Alpha} = \frac{[(3/15) \times 69{,}000]}{500} = £27.60/\text{unit}$$

Bravo = £61.33/unit
Echo = £23.00/unit
Oscar = £138.00/unit

$$\text{Ordering costs per unit} = \frac{[\text{No of orders per product/Total no of orders}) \times \text{Total ordering cost}}{\text{Number of units produced}}$$

$$\text{Alpha} = \frac{[(11/64) \times 32{,}000]}{500} = £11.00/\text{unit}$$

Bravo = £20.00/unit
Echo = £20.00/unit
Oscar = £62.50/unit

Engineering costs/unit = [(No of space parts per product/Total spare parts) × Total engineerir costs / Number of units produced.

$$\text{Alpha} = \frac{[(15/60) \times 45{,}000]}{500} = £22.50/\text{unit}$$

Bravo = £50.00/unit
Echo = £18.75/unit

Total cost per unit	**Alpha**	**Bravo**	**Echo**	**Oscar**
Direct costs:	£	£	£	£
Material	60.00	42.00	80.00	100.00
Labour	32.00	20.00	35.00	50.00
Other costs:				
Set-up costs	10.00	12.50	18.75	43.75
Material handling costs	27.60	61.33	23.00	138.00
Ordering costs	11.00	20.00	20.00	62.50
Engineering costs	22.50	50.00	18.75	56.25
	163.10	205.83	195.50	450.50

Note: Remember to include the direct costs that were given in the question when calculating the total cost per unit. This is a common mistake in exam situations.

Answer to Interactive question 4

4.1

	A	B	C
1		Current	After marketing campaign
2	Sales price per pair	55	65
3	Variable cost per pair	25	25
4	Contribution per pair	30 [1]	40
5	Fixed costs:		
6	Marketing	75,000	115,000
7	Salaries	200,000	200,000
8	Other	150,000	150,000
9	Total fixed costs	425,000	465,000
10	Annual sales volume (pairs)	20,000	20,000
11	Breakeven point (pairs)	14,167 [2]	11,625

[1] =B2-B3. The formula can be copied in C4.

[2] =B9/B4. The formula can be copied in C11.

4.2

	A		B	C
1			Current	After marketing campaign
2	Sales price per pair		55	65
3	Variable cost per pair		25	25
4	Contribution per pair		30 [1]	40
5	Fixed costs:			
6	Marketing		75,000	115,000
7	Salaries		200,000	200,000
8	Other		150,000	150,000
9	Total fixed costs		425,000	465,000
10	Annual sales volume (pairs)		20,000	20,000
11	Breakeven point (pairs)		14,167 [2]	11,625
12	Margin of safety (pairs)		5,833 [3]	8,375
13	Margin of safety %		29% [4]	42%

[1] =B2-B3. The formula can be copied in C4.

[2] =B9/B4. The formula can be copied in C11.

[3] =B10-B11. The formula can be copied in C12.

[4] =B12/B10. The formula can be copied in C13.

4.3

	A	B	C
1		Current	After marketing campaign
2	Sales price per pair	55	65
3	Variable cost per pair	25	25
4	Contribution per pair	30 [1]	40
5	Fixed costs:		
6	Marketing	75,000	115,000
7	Salaries	200,000	200,000
8	Other	150,000	150,000
9	Total fixed costs	425,000	465,000

10	Annual sales volume (pairs)	20,000	20,000
11	Breakeven point (pairs)	14,167 [2]	11,625
12	Margin of safety (pairs)	5,833 [3]	8,375
13	Margin of safety %	29% [4]	42%
14	Target profit		25,000
15	Required sales revenue		796,250 [5]

[1] =B2-B3. The formula can be copied in C4

[2] =B9/B4. The formula can be copied in C11

[3] =B10-B11. The formula can be copied in C12 [4] =B12/B10. The formula can be copied in C13 [5] =(C9+C14)/(C4/C2)

Answer to Interactive question 5

The first step is to calculate contribution per unit:

	McEnrova	Grafassi	Federdal
Total sales units	8,000	6,000	4,000
Total contribution (£)	144,000	132,000	120,000
Contribution per unit	£18	£22	£30

The lowest common denominator for the sales mix is 4:3:2.

Total contribution for the standard batch is £198 (4 × £18 + 3 × £22 + 2 x £30).

Breakeven point in batches = $\frac{306,900}{198}$ = 1,550 batches

The number of units of each model that must be sold in order to break even is:

McEnrova:	1,550 × 4	= 6,200
Grafassi:	1,550 × 3	= 4,650
Federdal:	1,550 × 2	= 3,100

The breakeven point in terms of sales revenue is:

	£	
McEnrova	248,000	(£40 × 6,200)
Grafassi	279,000	(£60 × 4,650)
Federdal	310,000	(£100 × 3,100)
	837,000	

Check:

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	McEnrova	Grafassi	Federdal	Total
Sales units	6,200	4,650	3,100	
Contribution per unit	£18	£22	£30	
Total contribution (£)	111,600	102,300	93,000	306,900
Total fixed costs (£)				306,900
Profit/(loss)				Nil

Answer to Interactive question 6

MEMORANDUM

To: Board members

From: Accountant

Date: [today's date]

Subject Purposes and benefits of a Management Information System

KLL requires a new Management Information System to provide more detailed information on the various activities of the company. The existing MIS is limited in the information that it can provide, and the directors have identified additional information that would help them control and develop the business. This memo summarises the purposes and benefits that can be obtained from a modern Management Information System.

(1) Purposes of a Management Information System

An MIS is a system to convert data from internal and external sources into information and to communicate that information, in an appropriate form, to managers at all levels in all functions to enable them to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible. The MIS is therefore established in a company to satisfy the information needs of management.

Within KLL, the directors will already be aware of this objective of an MIS because the company already has an MIS. The limitations of that MIS are now apparent, however, because activities cannot be split between those that are profit making and those that are loss making.

(2) Benefits of an MIS

The benefits of an MIS are summarised below, focusing particularly on the requirements of KLL.

(a) Provision of financial information

The existing MIS can provide some financial information, although the limitations of this information have been recognised by the directors. This limitation may well be a function of an older MIS being designed to produce specific reports rather than holding the data in some form of database and then different reports being generated from that data as required.

A new MIS should store data in a less rigorous format, enabling different reports to be produced as required. Details of profit- and loss-making sports can therefore be obtained.

(b) Provision of more timely information

The current MIS produces reports on a monthly basis. It is not clear whether this is a system limitation or whether reports have not been requested on a more frequent basis. However, monitoring the profitability of individual sports activities may benefit from more frequent provision of information. For example, if a competitor starts pricing activities below the price charged by KLL, then an immediate response will be required rather than waiting up to a month to amend prices.

A modern MIS should be able to provide information on a daily, if not real-time, basis to enable the directors to make quicker and more effective decisions.

(3) Provision of summary information

The Managing Director is concerned about the inappropriate level of detail being provided by the MIS. If the detail cannot be interpreted (per the question), then it is likely that the MIS is producing information at an operational level rather than a strategic or tactical level. The detail is available, but this has not been summarised appropriately. It is possible, for example, that income from individual games of squash can be seen, but not the total income for each court or for the sport squash itself for each week or month.

The new MIS will provide a summary of income initially, with the ability to provide more operational information as necessary using the 'drill down' ability of many information systems. Focusing the information at the strategic level first, rather than the operational, should provide the Managing Director with the appropriate level of detail.

(4) 'Better' information

The Managing Director is also concerned about the lack of 'good' information. This appears to be linked to the comment concerning the limited technical knowledge of staff and poor support from the software company. It is therefore possible that staff either have a lack of training in the use of the MIS or they are producing bespoke reports, and are not receiving the support from the supplier to help them do this. The board is not receiving good information because reports are not sufficiently focused on the activities of KLL.

Whether the situation actually needs a new MIS to resolve it remains unclear. It is possible that appropriate training or support would enable staff to provide the appropriate reports for the board. Alternatively, more recent MIS programs normally provide an easy to use report generator so staff should find it easier to produce the necessary reports.

Alternatively, data can be exported into a spreadsheet package for additional analysis and production of visual aids such as charts and graphs as necessary.

(5) Staff morale

Providing a new MIS will have other benefits for the company, such as increased staff morale and a better working environment. Staff are likely to be more motivated because the company is providing the software that is needed to carry out their job.

Answer to Interactive question 7

Issues for the board to consider

There is an allegation that Hiway's infotainment systems are vulnerable to cyberattack. Although Hiway has strenuously denied the claim, it does not appear to have any processes in place for monitoring cybersecurity – hence its inability to demonstrate these to Fova.

If Hiway does not have a cybersecurity policy in place, this represents a significant weakness in company's risk management regime, in general terms. However, there are potentially also two more specific implications in this case:

- Just because Hiway's infotainment systems have not yet suffered a cyberattack does not provide any guarantee they will not be attacked in the future. Hiway needs some more robust evidence to support their defence against the claims made in the report.
- Moreover, Fova's response indicates the seriousness which Hiway's customers place on system security, and the importance of ensuring cybersecurity throughout their supply chains. If Hiway is not able to demonstrate that its products are safe – and potentially, the information systems throughout the company as well – this is likely to cause significant damage to its reputation and could result in it losing customers.

Actions to take

As an urgent response to the report, Hiway should hire an independent expert to test the security of the infotainment system in question – so that, either, Hiway can substantiate their defence against the claims in the report or, if there are weaknesses in the infotainment system, these can be addressed as soon as possible.

More generally, however, the board needs to consider Hiway's cybersecurity risk management strategy – beginning with the fact that the board itself needs to take responsibility for cybersecurity within the company, and to agree how principal risks need to be mitigated or managed.

As well as ensuring the security of its products, Hiway also needs to protect the company's information systems and information assets against cyberthreats. In this respect, the board needs to establish a strategy for monitoring all Hiway's ICT systems and networks, and then implement that strategy. An important, on-going element of the strategy should be monitoring and testing security controls within the company, and addressing any weaknesses in them.

Although the testing of the infotainment system will need to be a separate, specific exercise, Hiway should consider obtaining an ISO 27001 certification to demonstrate that its overall information security management system is functioning properly.

Answer to Interactive question 8

8.1 CSFs and performance management – PBB's CSFs should identify the areas which are central to its future success and therefore where it needs to perform well if it is to be successful overall.

CSFs and KPIs – Once PBB has identified which aspects of performance are crucial to future success, it needs to be able to measure how well it is performing in relation to them. It can use KPIs to measure whether or not its CSFs are being achieved.

Examples – So, for example, measuring the number of students who do not complete each year of a course, or measuring the percentage of students who drop out each year, will allow PBB to monitor student performance.

8.2 **Improved student performance** – One of the aims of PBB's knowledge management strategy should be to gather, organise and share knowledge and experience about areas of its business which will contribute to its future success.

In this respect, if the staff in the departments that currently have high student drop-out rates can learn more about how to improve student performance, this should enable them to reduce the drop-out rates. In turn, this should allow the university to improve its performance in this area.

Reduce staff turnover – Currently PBB has an abnormally high level of staff turnover. Its staff turnover levels are double those of KLN, which has a culture of knowledge sharing.

Although there is no guarantee that introducing a knowledge management system will reduce staff turnover, if sharing knowledge helps improve performance this, in turn, should help improve the motivation and job satisfaction of PBB's staff. If staff value working for PBB because it is a successful organisation, this should help reduce staff turnover levels.

Increased collaboration between colleagues and departments – Currently very few of PBB's staff share knowledge with any of their colleagues. However, this lack of collaboration is likely to be stifling **innovation and creativity** within the university.

By contrast, if PBB implemented a knowledge management system, this should encourage staff to share ideas and experience with their colleagues, which in turn could lead to new opportunities for collaboration and innovation across the university. These should not only be

focused on new opportunities for how to improve student performance, but could also extend into areas of academic research as well.

8.3 **Data mining** – Data mining is concerned with analysing large pools of data to highlight previously unknown patterns and relationships in that data.

Predicting future behaviour – One of the key benefits which accrue from data mining is the ability to use the identified patterns and relationships to predict future behaviour. In PBB's case, the aspect of behaviour it wants to be able to predict is students dropping out of their courses.

Identify factors affecting drop-out rates – PBB could use data mining software to analyse data to try to identify which factors appear to be influencing student drop-out rates.

Because data mining software is designed to analyse large pools of data, PBB shouldn't be restricted to analysing only the performance of its own departments. It could also look at data for students in other UK universities to see what factors appear to be affecting their drop-out rates.

Importantly, if PBB can get a better understanding of the issues which are causing students to drop out of their courses, it can then develop plans to address those issues and thereby hopefully improve student retention rates.

Preventing drop outs – If PBB can identify, in advance, the groups of students which are most at risk of dropping out, it can then offer them additional support or guidance to try to prevent them dropping out of their courses.

For example, data mining might identify that foreign students who perform poorly in mock exams also fail their end of year exams and therefore cannot continue with their courses. In this case, action could be taken to offer extra tuition to students who fail their mock exams to help them improve their chances of passing their end of year exams.

Answers to Self-test questions

1 MMM

The current management accounting information provides a very detailed analysis of MMM's internal financial performance, but MMM does not appear to have any information about non-financial aspects of its performance, or any external information.

External information – It would be useful if the board had additional information about MMM's market niche and its competitors, for example, about the size of the market, and MMM's share of that market.

Market size – MMM is currently unaware of the size of its market niche and whether or not that niche is growing. Information about the size of the market and the rate at which it is growing (or declining) will be very useful for MMM because it can help identify how much scope there is for it to grow as well.

Market share – The fact that MMM has to 'estimate' that it is the second or third largest company in its niche indicates that it doesn't accurately know the size of its competitors or its market share.

However, this information would be useful not only for monitoring MMM's current performance, but also for evaluating possible future growth plans or strategies.

Basis of competition – MMM is not sure whether it is the high **quality** of its output or its **prices** which are most important in securing new clients. This lack of information about what its customers value makes it harder for MMM to determine what its most effective competitive strategy should be. If customers value the high quality of its output, a differentiation strategy would be appropriate; if customers are attracted by low prices, this suggests a cost leadership strategy could be more appropriate.

Competitor pricing – It seems that MMM does not compare its prices against the prices which its competitors are charging for similar jobs. Consequently, MMM's clients sometimes complain they have been charged too much, while on other occasions MMM feels it has charged too little. However, both these examples suggest that MMM would benefit from being aware of its competitors' prices so that it can ensure that it sets its own prices at a competitive level.

Industry forecasts – MMM could also look at industry forecasts for the travel and tourism sectors as a whole. The levels of demand which the sector is expecting, and therefore how well hotels might expect to be performing, could affect how much they are prepared to pay for advertising, or are able to pay.

Costing methods – MMM's approach to pricing work for clients accentuates the internal focus of MMM's planning and decision making, but it also helps to explain why there are concerns that MMM is charging too high or too low a price for items.

By adopting an inflexible approach to costing and pricing, MMM may be setting uncompetitive prices in relation to competitors' prices, or in relation to what its customers want. This again highlights the importance of MMM obtaining additional information about customers and competitors. For example, before setting a price for a client, MMM should try to find out what price the customer has paid for similar pieces of work previously, or what price competitors have charged for similar pieces of work.

Historical focus – An additional problem the board faces is that the accountant's monthly figures appear to only show actual performance against budget.

Forecast – However, it would be useful if they also showed a **forecast**. This could allow the board to highlight any shortfalls between the forecast position and their desired future position. In this way, if the forecast highlights any expected profit gaps, it could alert the board that they need to plan for ways to reduce the gap.

Forecasting could also help with **human resources planning**. For example, forecasting could alert BBB to potentially busy periods when it would be beneficial for BBB to hire additional, freelance designers to satisfy the levels of demand.

2 FDS Co

2.1 A customer profitability reporting system for FDS will presumably categorise customers into four types: farmers, local government bodies, sports centres and building contractors. It would be possible to have a project costing system whereby costs and revenues are attributed to individual projects, and the profitability of each category of customers would then be calculated as the total profits of all the projects for that customer type.

Sources of information

The revenue for each project can be found from the contract agreed with each the customer or from the invoices raised for the work done.

Direct costs

The information for the costs directly associated with each project should also be obtainable from internal sources.

(1) The cost of **materials** for each project would be recorded from the documents for requisitioning materials to the project, and materials would be priced either from inventory records or from purchase invoices from suppliers.

(2) The cost of labour working on site for each project should be obtained from **timesheets** and payroll records.

(3) The cost of plant hire from each project should be obtained from **invoices from plant hire companies**. If FDS owns its own plant, records should be kept of the use of the plant on each project and a charge for depreciation can be made to a project on the basis of the time that the plant is on the project site.

Overhead costs

To establish a customer profitability reporting system, it will probably be necessary for FDS to record some costs that in the past may have been accounted for as general overheads.

(1) The cost of the sales effort to win contracts should be recorded and charged to contracts. For customer profitability reporting, the cost of salespeople's time and expenses should include the cost of unsuccessful sales effort as well as successfully negotiated contracts. A system of recording time spent selling, and related expenses, will be required. Timesheets can be used to record time, and expense claims should indicate which expenses were incurred on particular projects or types of customer.

(2) Irrigation systems presumably have to be planned, and some contracts are more complex than others. The time spent by planners on the design of the system for each contract should be recorded on timesheets.

(3) Costs of delivering inventory to the customer's site should be recorded. The costs will include the time of drivers and their assistants, together with fuel costs. It is possible that an average cost per tonne-kilometre carried may be used as a standard delivery cost. This could be estimated from delivery records in the transport department. If

external delivery firms are used to deliver inventory, invoices can be attributed directly to individual projects.

(4) The cost of holding inventory may be considered a significant cost. If so, a cost of holding inventory can be calculated for each project from the cost of the inventory on site, the time from purchase of the inventory to payment by the customer, and an appropriate cost of interest or capital for FDS.

(5) If some maintenance costs are included within the price of a contract (for example if maintenance is provided free for a time after installation), maintenance times for engineers and any direct expenses should be recorded and charged to each contract.

(6) If there are miscellaneous directly attributable costs to projects, a system may be required to capture this cost data and attribute it to individual projects or customer types.

2.2 **Highlight differences in profitability** – The purpose of a customer profitability reporting system should be to provide information that will help management to monitor and control the profitability of contracts for each type of customer. However, this information will only have value if costs differ significantly between different types of customers.

It appears that farmers often negotiate lower prices than some other groups, which might initially suggest that the profitability of farming contracts will be lower than for other contracts.

However, negotiations with local government bodies may be lengthy and the contracts may be complex, suggesting that selling and planning times and costs may be high for this type of customer.

Equally for sports centres, there is often difficulty delivering materials to the customer's site which means that delivery costs of materials to site and costs of completing projects may be higher than for other types of customers.

Therefore, there is a degree of uncertainty about how profitable each type of contract actually is, if all the relevant costs are included. However, as the management accountant has suggested, it is important the FDS understands the profitability of different types of contracts; either so that it can focus its attention on the most profitable contracts, or so that it can increase the profitability of other types of contracts (for example, by reducing the level of discounts it is prepared to give to farmers).

Decision making – The potential differences in the profitability of different types of contracts become even more important as FDS gets closer to full capacity. FDS needs to ensure that it accepts the contracts which will generate the highest contributions to profit.

Of the three installations FDS has recently been asked to undertake, the 'Farm' installation generates a significantly lower contribution to profit than the 'Sports Centre' or the one for the 'Building Contractor'. This would suggest that FDS should not accept the 'Farm' contract.

	Sports centre	Farm	Building contractor
Discounted price (£)	192,000	190,000	194,000
Installation team costs	(84,000)	(75,000)	(67,500)
Additional delivery costs		(25,000)	
Contribution to profit (£)	108,000	90,000	126,500

Improved pricing – Better information about each type of customer may help FDS to price its contracts differently, or to resist demands for lower prices from farmers if profit margins on their contracts seem too low.

There is a shortage of skilled engineers for installation and maintenance; therefore, another possible use of customer profitability analysis is to make decisions about which type of contract should be preferred.

FDS might even introduce some kind of limiting factor analysis which looks at contract revenues and profitability in relation to engineer hours, so that preference (and more selling effort) can be given to the type of contract or customer which generates the highest profit per engineer hour.

2.3 Establishing costs

The costs of establishing a system for measuring and reporting customer profitability are difficult to estimate. The costs of establishing the system can be estimated as the costs of the time of managers (including the management accountant) in designing and testing the system. There may be external software development costs that would be directly attributable to the system design.

The costs of operating the system would also be very difficult to measure since the data records would be originated by different individuals. If a cost or management accountant is employed to collect and input data and produce profitability reports, the cost of his or her time would be directly attributable.

Most of the costs of the information system would probably be 'lost' in general overheads, however, and the benefits of monitoring the costs are doubtful. The only significant decision affecting the cost of the system is whether the cost of developing and introducing the system is justified by the expected benefits.

Expected benefits

The benefits of the information system will depend on whether the profitability reports would be likely to affect decision making by management. Specifically, would it affect decision

making about the pricing of contracts, or would it affect decisions about which projects to undertake when there is insufficient skilled engineers' time to meet all current demand?

If the potential benefits are considered significant, the performance measurement system should be introduced. Unfortunately, it will not be possible to estimate the benefits with certainty until after the system has been introduced.

3 CMA Supermarkets

3.1 IT technology in supermarkets commonly uses bar codes to identify the products that are sold, and bar code readers enable a supermarket to monitor the quantities of items that it sells as well as to price them for customers. Bar code reader systems are therefore quite sophisticated.

Inventory tracking – Radio frequency ID systems replace bar codes with a chip, and the chip on each item of inventory can hold information in addition to product identification data. This means that RFID readers are able to detect where an item of inventory is at any time and can track inventory movements.

In the case of a supermarket such as CMA, RFID readers could track the movement of inventory from a central stores depot to a supermarket store room, from the store room to the shelves in the supermarket and from the shelves to the customer checkout.

Inventory management – In an industry where fast throughput of items is a critical aspect of success, the ability to monitor the movement of items in such detail, and the time between receiving stores items and selling them, may be of operational value by helping management to adjust purchasing and deliveries in order to speed up sales.

From an accounting perspective, RFID may also be used for inventory counts. An RFID reader can gather information about all the product items held in store at any time, without the need for detailed manual counting.

The additional benefit of having up to date 'real time' data about inventory will depend on the company's management information systems. In principle, a company-wide IT system should be capable of comparing throughput times for different types of product, and comparing the operational performance of different supermarket outlets. The ability to locate stores items may help management to transfer items from where they are turning over slowly to where customer demand is stronger.

Operational performance – CMA's store managers are rightly concerned that the number of out of stock products appears to be rising.

This is a problem for two reasons:

- If an item is out of stock customers cannot buy it, and so this will reduce CMA's revenue (unless the customers find a direct replacement they are prepared to buy instead).
- If customers keep finding that the items they want to buy are out of stock they will stop shopping at CMA. This is potentially a bigger problem for CMA because not only will its revenue and market share fall as a direct result of the lost customers, but it could find it harder to recruit new customers if it develops a reputation for not having items in stock.

Reducing out of stock products – RFID tags should lead to fewer out of stock products. In turn, keeping CMA's shelves fully stocked should lead to increased sales and profits, and a more positive shopping experience for customers (leading to higher customer retention).

Inventory ordering – Because RFID technology provides real-time information it will enable CMA to manage its supply chain more efficiently, both between its stores and its warehouses, and from its stores back to suppliers.

Using RFID tagging, whenever a product is scanned through a till, inventory levels for that product are updated. However, perhaps more importantly, CMA could also use RFID tagging to inform product suppliers of sales and inventory levels. For example, CMA's RFID system could send inventory messages to suppliers whenever their products are scanned through its tills. In this way, the suppliers are aware of the up to date inventories at the stores and can ship additional products as necessary. (If CMA pursued this approach, it might be able to switch to a vendor management inventory relationship with its suppliers, which could be used to help improve product availability.)

However, for CMA to maximise the benefit it can get from using RFID in the short term, it will need its supplier to implement RFID technology on all the products they supply to it. It is not

clear how many of CMA's suppliers can currently do this, or even whether it will be possible to tag all the products CMA sells (for example, fresh fruit and vegetables).

3.2 **Integrated system** – The greatest value may be obtained from a new IT system by integrating it across the company. The same system should record data for and report on the performance of central inventory and distribution depots as well as individual supermarket outlets. The system should also record information about costs (which could be held within the data on RFID chips) and selling prices, so that information can be reported about gross profits of stores and product groups within each store. Unexplained losses (due to theft by customers) could also be monitored as a cost item.

Real-time information – The system should also operate in real time, so that users of the system are able to access information they want at any time. Stores managers, for example, should be able to obtain information about sales and gross profits for the store, and then if required drill down for further information about the profitability of product ranges, or manufacturers' brands or even individual product items.

Similarly, rather than having to wait until the end of the month for summary performance reports, senior management could receive summary trading updates at the end of each day or week.

Dashboards and drill downs – At the moment, individual store accounts are prepared for each store and then presented to the store manager, alongside summary reports for the senior management team. It would be more useful for CMA if this information was available electronically, in a way that allowed managers to drill down from summary information to more detailed information for regions and then individual stores.

Having an integrated system in this way should help senior management make comparisons between different central inventory and distribution depots or between different supermarket outlets. Non-financial performance information (for example speed of product throughput) as well as financial information should be provided all within the same system.

The system should also include external data, although much of this may have to be input by the company's own staff. For example, employees who visit rival supermarkets to check competitors' prices should be able to insert their current prices into the system, so that supermarket managers and senior management can monitor competitive pricing and respond to rivals' price changes.

Data mining – The information that is gathered about product sales should also be used to extract sales data and analyse it to produce information that might help the company to improve sales further – such as information about what products sell well in different areas and at different times of the day, week or year. Data analysis can also be used to 'mine' for data about individual customers.

3.3 **Identify buying habits** – In order to exploit data about individual customers, CMA needs to obtain data about a customer's buying habits. For online sales (for home delivery), the system identifies individual customers and it can prompt them to buy items (by presenting a list of the items they regularly buy as a proforma shopping list) or it can try to encourage them to buy more with discount vouchers.

Loyalty card schemes – For other customers, some supermarket groups use a loyalty card scheme. Customers who present their loyalty card at a store checkout may be awarded bonus points which eventually build up into money-off vouchers. The customer is identified through the loyalty card, and sales details are recorded by the checkout system. Through loyalty cards, supermarkets are able to gather data about what individual customers buy, how much they spend and when they do their buying. Offers to encourage customers to buy more can be related to the known buying preferences of the individual.

If required, a supermarket should be able to calculate the gross profit contributed each period by each 'loyal' customer. This may help the company to target particular types of customers who are more profitable than others.

Chapter 10
Human resource management

Introduction

Learning outcomes

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Answers to Self-test questions

Introduction

Learning outcomes

- Assess, explain and advise on the role of human resource management in implementing strategy
- Demonstrate and explain how human resource management can contribute to business strategy, including flexible workforce management
- Identify the impact of remuneration structures on organisational behaviour and other aspects of human resource management, and show the corporate reporting consequences
- Demonstrate and explain the role and impact of human resource management in change management

Examination context and syllabus links

Human resource management (HRM) plays a vital role in underpinning strategy. Successful strategic implementation requires the effective recruitment, training and organisation of people, coupled with effective leadership and performance management.

As with any other resources, it is crucial that an organisation's human resources are appropriate for the strategy it is pursuing.

There are a number of links between elements of this chapter and topics we have covered earlier in this Workbook. In the chapter "Strategic implementation", we looked at organisational structure and noted that the leadership and management styles which are appropriate for an organisation will depend on the context of the organisation. This idea of contingency (obtaining a fit between an organisation's human resources (HR) strategy and its business strategy) is an important strand of HRM.

Also, it is important that an organisation's remuneration and reward systems are aligned to the organisation's objectives and its critical success factors.

For example, if highly skilled employees are critical to an organisation's competitive success, then its reward system should be designed to try to retain these staff, rather than trying to keep staff costs as low as possible.

In the chapter "Strategic performance management" we looked at the relationship between employees' remuneration/reward and performance. Remuneration structures – and the impact they have on employee behaviour – are key issues within HRM, so there are close links between the performance measurement/management issues we discussed in the chapter "Strategic performance management" and those we will discuss in this chapter.

Aspects of HRM (such as setting performance objectives and measuring performance against objectives through methods like staff appraisal) also play an important role in the performance management and control of the organisation as a whole. In this respect, HRM follows a similar control model to that used for the overall strategic and operational control of an organisation.

More generally, employee performance is vital to the overall performance of most organisations (especially service organisations). Therefore HRM's role in leveraging people's capabilities is critical to achieving sustainable competitive advantage.

Change management, which we also discussed in the chapter "Strategic implementation", is another aspect of strategy implementation which has an important HRM element.

For example, in order to manage change successfully an organisation will need to handle staff concerns about such change, and to ensure it has the appropriate number, and quality, of staff to operate effectively once the change has been introduced.

Chapter study guidance

Use this schedule and your study timetable to plan the dates on which you will complete your study of this chapter.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
1	**Strategic human resource management** Successful strategy implementation requires the effective recruitment, training and organisation of people, coupled with effective leadership and performance management. Equally, if an entity is looking to reduce costs, it might look to outsource certain functions, or relocate them (possibly internationally). Such changes could have significant HRM implications.	**Approach** Sections 1 and 2 of the chapter are closely linked and so should be read together if possible. Section 1 looks at what HRM is and what its aims are. **Stop and think** To what extent does HRM contribute to an entity's strategic competitive advantage?	In the exam you may be required to assess the role which human resource management could play in enabling an organisation to implement a strategy successfully, and advise the organisation about this.	**IQ1: ScanTech** This question relates to a human resource plan and asks how it would assist in the growth of the company discussed in the scenario.
2	**The impact of HRM on business strategy** HRM strategy needs to be relevant to, and supportive of, the business strategy. Different HRM strategies are appropriate at different stages of an organisation's life cycle. The HRM strategy will also vary depending on whether an entity is a cost leader or a differentiator.	**Approach** Section 2 looks at the impact HRM has on business strategy. Consider the strategy of the business and also how the structure of the workforce could influence its performance – this is one of the key considerations in relation to workforce flexibility. **Stop and think** What impact has the Covid-19 pandemic had on workforce flexibility?	Exam questions may ask you to demonstrate how human resource management can contribute to an organisation's corporate strategy, including in relation to flexible workforce management.	**IQ2: Financial service companies** This question develops your commercial awareness by asking you to explain the impact of changes in financial services on various elements of human resource management.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
3	**Appraisal and performance management** Appraisal is fundamental to performance management, connecting the achievement of strategy with individual performance. However, if not carefully designed, appraisal systems and performance management targets can also have an adverse effect on performance.	**Approach** Work through the material about appraisals relatively quickly, the issues around performance targets and behaviour are more important. **Stop and think** What are the potential impacts on employees and on the business as a whole of setting challenging targets for employees?	In the exam you may need to assess the effectiveness of the appraisal process and performance measurement systems, in motivating employees. You may also need to recommend appropriate performance measures to support strategic objectives.	**IQ3: Appraisals** In this short question you are asked to use the scenario to discuss reasons why the appraisal system objectives are not being met. This is a good knowledge building example and you can also make use of your own business experience to generate ideas.
4	**The impact of remuneration and reward packages** The strategic importance of staff should be clear from the number of entities who refer to their staff as their key assets. As with any other assets or resources, an entity needs to ensure the quality and quantity of its staff are appropriate to the strategies it is pursuing. For example, if an entity wants to differentiate itself from its competitors on the basis of quality, then it is likely to need highly skilled and highly trained staff, and its reward and remuneration packages need to be attractive to those staff.	**Approach** One of the key themes in this section is the impact that remuneration structures have on organisational behaviour. We looked at the relationship between employees' remuneration/reward and performance in the chapter 'Strategic performance management', but since remuneration and reward are key issues in HRM they are revisited here. Decisions about remuneration structures (in particular, pensions policies, and share- based payments) can also have a direct impact on an entity's financial statements, as highlighted in this section. **Stop and think** What is the impact of share based payments on the financial statements?	The content within this topic could be examined in several ways. You may be asked to assess the impact that remuneration structures have on organisational behaviour. You may also need to identify the potential corporate reporting consequences of the remuneration structures in an organisation. As part of your exam preparation ensure that you prepare your open book materials so that you are able to easily find the relevant content in the exam.	**IQ4: Reward packages** In this question you are provided with information about a consultancy business hoping to change its remuneration policy. You are asked to evaluate the directors' proposal to reduce consultants' salaries but to increase the commission paid. Remember that an evaluation is asking you to look at arguments in favour of *and* against the proposal.

Topic	Practical significance	Study approach	Exam approach	Interactive questions
5	**HRM and change management** In order for strategic implementation to be successful the way change is communicated to employees, and the way those people subsequently respond to change, must be carefully managed.	**Approach** You have studied models of change in Business Strategy and Technology so quickly recap this topic. Focus more on HRM and due diligence since assurance will appear in some form in every exam. **Stop and think** Consider a change that has occurred in your life. Did you resist it and why? Did you learn to accept the change and what helped to you to achieve this?	In the exam you may be required to explain the importance of human resource management in the context of change management. Change management models can be used to provide structure to your answer although will not be awarded marks in their own right, as is the case with all theoretical models in SBM&L.	

Once you have worked through this guidance you are ready to attempt the further question practice included at the end of this chapter.

Models of HRM

In the course of this chapter, we refer to a number of models of HRM. You will not be expected to discuss the theory of these models by name in your exam, but rather to apply the ideas in a practical context.

For example, Fombrun, Tichy and Devanna's model illustrates how HRM activities link together. One of the linkages it highlights is that between staff reward and performance. Therefore, if a question scenario indicates there are concerns around performance levels and the scenario also gives details of the reward system (eg, performance targets and bonuses), you should consider whether the reward system is contributing to the problems in performance and, therefore, whether the reward system could be revised.

Similarly, Guest's model highlights the link between HRM and an organisation's performance (including its financial performance). So, again, if a question scenario highlights that an organisation's financial performance is deteriorating, you could use the ideas of the model as a general framework to assess how far staff issues might be contributing to the performance issues, and whether any changes to HRM practices might help improve overall performance.

In a similar vein, consider how the references to Theory X and Theory Y, and hard and soft approaches to HRM, could be relevant to a scenario. For example, if you are told a manager is trying to manage highly skilled professional staff in an autocratic way without any scope for consultation, this should raise concerns. In effect, the manager is employing a 'hard' (Theory X) approach to deal with staff who are likely to respond much better to a 'soft' (Theory Y) approach.

1 Strategic human resource management (HRM)

Section overview

HRM emphasises that employees are crucial to achieving sustainable competitive advantage, and that HR practices need to be integrated with the corporate strategy.

1.1 HRM

The concept of HRM and its goals were covered in the Business Strategy and Technology syllabus. HR strategy involves two interrelated activities:

- identifying the number and type of people needed by an organisation to enable it to meet its strategic business objectives
- putting in place the programmes and initiatives to attract, develop and retain appropriate staff

HRM includes all the activities management engage in to attract and retain employees, and to ensure that they perform at a high level and contribute to achieving organisational goals.

For some companies, particularly service companies, human resources may be a source of strategic advantage in their own right. After all, how many times are we told that a company's people are key assets?

Components of HRM

Within the overall aims of attracting and retaining employees, and ensuring they perform at a high level, we can identify five major components for an organisation's HRM systems:

(a) **Recruitment and selection** – Attracting and hiring new employees who have the ability, skills and experience to help an organisation achieve its goals.

(b) **Training and development** – To ensure that all staff develop the skills and abilities which will enable them to perform their jobs as effectively as possible in the present and in the future. In the context of knowledge management and learning organisations, the idea of learning and development should become increasingly important.

(c) **Performance appraisal and feedback** – Appraisals serve two different purposes in HRM: judgement (in order to make decisions about pay, promotion and work responsibilities) and development (assessing employees' training and development needs, and supporting their performance).

(d) **Pay and benefits** – The level of pay and benefits offered to staff has to be appropriate to retain staff. By rewarding high-performing staff with pay rises, bonuses etc managers can increase the likelihood that an organisation's most valued human resources are motivated to continue their high levels of performance, and are more likely to stay with the organisation. Equally, offering attractive pay and benefits should help an organisation fill vacant positions with talented people.

(e) **Labour relations** – Labour relations encompass the steps that managers take to develop and maintain good working relations with unions that may represent their employees' interests.

The following short example highlights the importance of HRM and employee engagement, in terms of staff motivation and performance.

Context example: John Lewis

The retailer John Lewis is often named among the best organisations to work for in the UK, and this reflects its strong focus on people.

One of the key ways John Lewis highlights the value it places on its employees is by calling them 'partners'. Employees are not only given a share of the company's profits, they're also given a say in how the company is run.

Equally, however, by treating its staff as 'partners' the company is recognising their role in delivering excellent service to customers, and empowers them to create the best experience they can for customers.

In turn, employees feel motivated to drive the company's performance. They believe they can make a difference, and this engages them to want to perform and to help the company succeed.

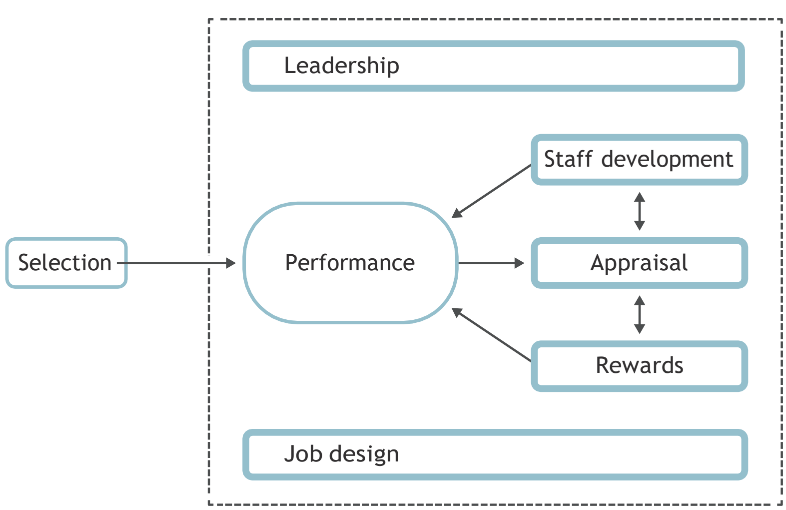
Definitions

Human resource management (HRM): 'A strategic and coherent approach to the management of an organisation's most valued assets: the people working there who individually and collectively contribute to the achievement of its objectives for sustainable competitive advantage.' (Armstrong)

Human resource management (HRM): 'A strategic approach to managing employment relations which emphasises that leveraging people's capabilities is critical to achieving sustainable competitive advantage, this being achieved through a distinctive set of integrated employment policies, programmes and practices.' (Bratton and Gold)

Figure 10.1 below, adapted from Fombrun, Tichy and Devanna's model of HRM, is a useful way of illustrating how HRM activities link together. Try to keep this diagram (and the linkages between the activities) in your mind as you read through this chapter and when answering a question about HRM in your exam.

Remember also HRM's role in business strategy overall as illustrated by the definitions above. Figure 10.1: Elements of Human Resource Management (after Fombrun, Tichy & Devanna)



CHAPTER 10

1.1.1 Goals of strategic HRM

- Serve the **interests of management**, as opposed to employees
- Suggest a **strategic approach to personnel issues**
- Link **business mission to HR strategies**
- Enable **HR development to add value** to products and services
- gain **employees' commitment** to the organisation's values and goals

It is important to recognise that the HR strategy has to be related to the business strategy.

For many businesses, staff are key assets, and this reiterates the importance of HRM. HRM emphasises that employees are crucial to achieving sustainable competitive advantage, but also that HRM practices need to be integrated with the corporate strategy.

In this respect, it is important to understand the links between HRM and an organisation's ability to achieve its objectives and its critical success factors (CSFs). For example, if an organisation identifies excellent customer service as a CSF, then its recruitment process, training, appraisal and reward systems should all be geared towards promoting customer service skills in its staff.

Interactive question 1: ScanTech

ScanTech is a rapidly growing high-technology company which specialises in producing electronic scanners. It currently has 110 employees, but aims to double in size over the next three years. The company was set up by two researchers from a major university who now act as joint Managing Directors. However, they intend to leave ScanTech once the growth objectives are achieved and the company is large enough to be sold.

The sophisticated imaging devices which ScanTech makes are used by the airline security and health industries. These two markets are very different in terms of customer requirements, although they use the same basic technology.

In recent years, ScanTech has seen a significant increase in sales from exports, and as a result its strategic plan anticipates a foreign manufacturing plant being set up within the next three years.

ScanTech's current managers are all staff who joined in the early years of the company, and their primary expertise is in research and development. The future growth of the company will require additional staff in all parts of the business, particularly in manufacturing and sales and marketing.

Sue Franklin is HR Manager at ScanTech. She is annoyed that HR is the one management function not involved in the strategic planning process shaping the future growth and direction of the company. She feels trapped in a role traditionally given to HR specialists, that of simply reacting to the staffing needs brought about by strategic decisions taken by other parts of the business. However, she feels that HR also has a strategic role to play in helping ScanTech deal with the challenges over the next three years.

Requirement

Discuss how a human resource plan could help support ScanTech's growth strategy.

See **Answer** at the end of this chapter.

1.2 Roles of HRM

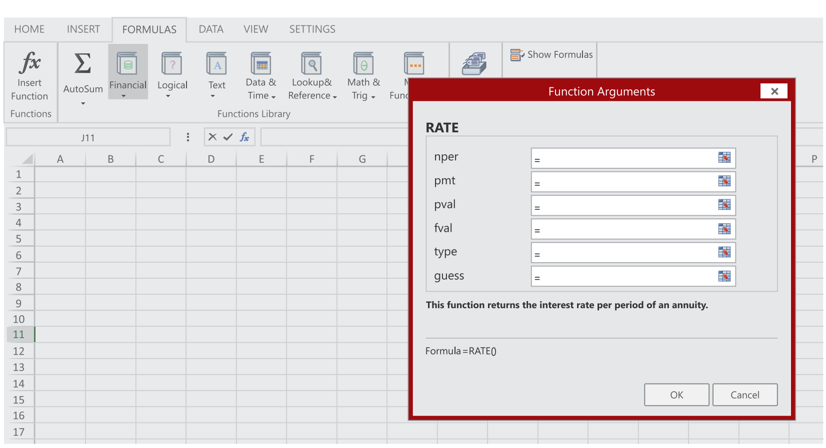
Dave Ulrich has identified four elements of human resources (HR) activity within an organisation:

HR role	Elements of activity
Strategic partner	Aligning HR with business strategy and business requirements Manpower planning Environmental monitoring
Administrative expert	Running the organisation's HR processes and 'shared services': • Payroll • Appraisal • Recruitment and selection • internal communications
Employee champion	Listening and responding to employees Providing resources and training to employees Conciliation Grievance procedures
Change agent	Managing transformation and change in the organisation Ensuring capacity for change and development in the organisation – for example, through management development and performance appraisal

However, it is important to recognise that these different roles are inter-reliant. For example, there is little point in trying to change an organisation's culture and structure from an 'individualist' to a 'team-based' approach without also providing training and changing reward procedures. For example, if performance appraisals still focus on individual results rather than team performance there will be little incentive to move towards a team-based approach.

The different elements highlighted in Ulrich's model identify that HRM is important at both a **strategic level** and an **operational level** within organisations, and also that it involves processes as well as people:

Figure 10.2: HR activities within organisations (based on Ulrich's model)



HRM and personnel management

It is important to distinguish between HRM (as a strategic activity) and personnel management.

Personnel management deals with day to day issues such as hiring and firing, and industrial relations. Unlike HRM, it does not play a strategic role in an organisation.

1.3 Becoming an employer of choice

One area in which HRM can play a particularly important role in an organisation is helping it become an employer of choice.

Many organisations strive to become employers of choice. The status of being an 'employer of choice' implies that people will want to seek employment with the organisation and, once there, will contribute sustained high performance by remaining motivated and committed to the organisation.

For the employer, being an employer of choice should help to attract a high number of well- qualified, suitable and able candidates for any vacancies. Equally, if employees are committed to the organisation and its objectives, this should improve corporate performance and make it a good place to work.

2 The impact of HRM on business strategy

Section overview

- HRM is based on the assumption that the management and deployment of staff is a key strategic factor in an organisation's competitive performance.
- However, to be successful, the HR strategies an organisation pursues need to be aligned to the organisation's overall business strategy.

2.1 Approaches to HRM

Marchington and Wilkinson suggest that there are two main approaches to the relationship between business strategy and HRM strategy: the best fit (contingency) approach and the resource-based approach.

2.1.1 Best fit (contingency) approach to HRM

This approach suggests that HRM strategy needs to be relevant to, and supportive of, the business strategy. This means the strategies need to 'fit' with the internal and external contexts of the organisation.

So, for example, as an organisation moves through its life cycle, different HRM strategies become necessary to support the business strategies at each stage. Thus, HRM strategies are contingent on the life cycle stage.

Similarly, an organisation's HRM strategy will be dependent on its competitive strategy – whether it is pursuing a cost leadership or differentiation approach.

2.1.2 Resource-based approach to HRM

The resource-based approach takes the opposite perspective.

The best-fit approach argues that HRM must be flexed to align an organisation with outside factors in order to deliver effective performance. But the resource-based approach argues that HR activity itself can be strategic, and activities such as training and development can directly influence organisational performance. Therefore, HRM can be used strategically in its own right as one of the resources available to an organisation.

In this way, the resource-based approach to HRM encourages organisations to identify those parts of the workforce which have the greatest impact on performance, and then focus attention on how those staff should be used within the organisation (for example, if there is any need to change processes or practices to increase the value they can add to the organisation).

The resource-based approach also encourages organisations to look at the ways interpersonal and team relationships develop within the organisation, and how this can affect performance. In effect, this also highlights the importance of 'culture' in an organisation, helping staff to work productively and efficiently.

Importantly, however, the resource-based approach does not contend that HRM strategy should only consider factors internal to an organisation. There is still a need to consider influences outside an organisation, and how they can affect HRM strategy: for example, education levels, and economic conditions in a country.

2.1.3 Guest's model of HRM

David Guest has also developed a model which aims to show the link between HRM and organisational performance, and how developing an integrated set of HRM practices can improve the performance of individual staff and, in turn, the organisation as a whole.

Guest's model acknowledges the link between HR strategy and general business strategies. However, the central hypothesis of the model is that HR practices should be designed to lead to HRM outcomes of **high employee commitment, high quality** and flexible **employees.**

High employee commitment is seen as a critical HR outcome because it is concerned with the goals of binding employees to the organisation and obtaining behavioural outcomes of increased effort, cooperation and organisational citizenship.

Quality highlights that employee behaviour has a direct impact on the quality of goods and services. Flexibility is concerned with employees' receptiveness to innovation and change.

The right-hand side of the model focuses on the link between HR practices and performance. A critical assumption in Guest's model is that only when all three HR outcomes – commitment, quality and flexibility – are achieved can an organisation expect to generate superior performance outcomes (both financially and non-financially).

Guest's six components:

(1) HRM strategy	(2) HRM practices	(3) HRM outcomes	(4) Behavioural outcomes	(5) Performance outcomes	(6) Financial outcomes
Differentiation (innovation) Focus (quality)	Selection Training Appraisal	Commitment Quality Flexibility	Effort Motivation Cooperation	**High:** Productivity Quality	Profits Return on investment

CHAPTER 10

(1) HRM strategy	(2) HRM practices	(3) HRM outcomes	(4) Behavioural outcomes	(5) Performance outcomes	(6) Financial outcomes
Cost (cost reduction)	Rewards Job rede-signInvolve-ment Status and security		Involvement Organisatio-na l citizen-ship	Innovation **Low:** Absen-teeism Employee turnover Conflict Customer complaints	

2.2 HR and generic strategies

As Guest's model acknowledges, there is a close link between HR strategy and overall business strategy.

The generic business strategy which an organisation pursues is likely to have a significant impact on HRM.

For example:

(a) Cost leadership is often to be associated with terms such as: Theory X (autocratic) management, role culture, tall narrow organisational structures, task specialisation, close direction and control, repetitive tasks, and top-down information flows.

(b) Differentiation is often to be associated with terms such as: Theory Y (participative) management, task culture, wide flat organisational structure, multi-skilled employees, autonomy and self- direction, unique and creative tasks, and multi-directional information flows.

The contrast between Theory X and Theory Y can also be illustrated by the contrast between 'hard' and 'soft' approaches to HRM:

Issue	Hard	Soft
Goals	Meet organisational objectives Workers are a resource to use to achieve those objectives	Develop HR as asset Workers are valuable to a company as assets
Behavioural assumption	Theory X Financial focus on wages (emphasis on gaining work efficiencies)	Theory Y Develop employees
Management style	Imposed, top-down Tell workers what to do	Consultative, participative Listen to employees' views, and encourage involvement and commitment
Training and development	Training only given to meet needs of current position, in order to fully utilise labour resources	HRM is about developing resourceful people; personal development as well as career development are encouraged
Organisational structure	Centralised	Devolved, delegation, autonomy

As we will see later in this chapter, the system of rewards management and remuneration used by an organisation will also vary according to the nature of its business and the generic strategy it is employs.

2.3 HR and Porter's five forces analysis

HR can play an important role in reducing the adverse effect of the five forces for an existing member of the industry. Some forces are more susceptible to HRM than others.

Barriers to entry

To enter an industry, an organisation needs staff of the right quality, ability and cost. Assuming that entry is not achieved by takeover, then almost certainly recruitment will be required, and this can be difficult if there is a shortage of suitable candidates either already trained or wanting to train.

Increasingly, many industries have a higher technical content in their jobs today and more qualified employees are therefore needed. Additionally, many economies have moved from manufacturing to service industries and, because more employees have dealings with customers, employees with better interpersonal skills might be needed. Remember, if a poor product is manufactured it can be identified through the quality assurance process. Poor service is often delivered instantly and can cause immediate damage to customer relations.

Suppliers

Supplier power can derive from various factors such as the number of suppliers in the market, how specialised their goods are, geographical proximity and the fact that the organisation requires goods of a certain standard in a certain time.

HRM can help to erode supplier power by ensuring that buyers have comprehensive knowledge about suppliers and their products and have good negotiating skills. Additionally, partnership sourcing is becoming more common. This is where a purchaser and supplier build a long-term relationship involving mutual trust and recognise that they need each other if they are to be successful. (This builds on the ideas of supply chain management and networks we have considered earlier in this Workbook.)

Bargaining power of customers

The bargaining power of customers is high if there are only a few of them and each buys a large quantity, and also if customers buy mainly on price. The bargaining power of customers can be reduced by finding more customers and by trying to lock in all customers. HR, for example through suitable training, can do this by:

(a) Raising switching costs in both cash terms, and in terms of operational inconvenience. An example is where staff provide exceptionally good service, or design, manufacturing and dispatch are excellent. If a customer is looked after well, there will be a reluctance to switch to a new supplier. Even if the new supplier is not worse, there will be a period of disruption until the new supplier provides exactly what the customer wants. Therefore the recruitment, training and retention of good staff will help to retain customers.

(b) Finding more customers. Recruitment of and training a good sales team and, increasingly, the establishment of a good internet site (again often dependent on recruiting skilled people) are essential for this.

Rivalry/competition

Winning over competitors depends on the nature of the competition. For example, winning a cost leadership battle depends on keeping costs down, and winning a differentiation battle depends on producing goods and services that are really appreciated by customers. Appropriate HRM techniques will help with these objectives. Cost levels will be affected by wage levels, recruitment and training. Differentiation will be affected by recruiting talented people and managing them in an appropriate way.

Substitutes

The emergence of substitute products and services is difficult to predict. Substitutes are often caused by technological breakthroughs. For example, mobile phones are a substitute for fixed line phones. HRM can, however, play important roles as follows:

(a) **The adoption of substitutes**. For example, it can be argued that cheap airlines have become a substitute for some car and train journeys. If an airline wants to win part of that type of business it will have to adopt HR policies that are consistent with the cheap airline model with regards to wages, job flexibility and working hours.

(b) **The invention of substitutes**. The marketing, research and development and production departments can all contribute here. Recruiting and developing creative people in an environment conducive to conceiving new products and services is vital.

2.4 HRM implications of business strategy

When looking at strategic decisions an organisation is considering, it may initially seem as if they do not have much to do with HRM. However, this is not the case. Almost all objectives, and almost every issue facing an organisation, have HRM implications.

The following tables illustrate this in two simple examples:

(a) Business strategy – to grow market share in a new country

Area of HRM	Application to scenario
Organisation and culture	New sales team needed, based in the country
Recruitment and selection	Recruit local sales people Appoint experienced international manager
Training and development	Sales training Cultural awareness of the new country
Pay and benefits	Local packages, salary and benefits

(b) Strategic issue – reducing the number of customer complaints in a retail store

Area of HRM	Application to scenario
Organisation and culture	Assess general culture towards customers Analyse complaints to see if caused by organisational process inefficiencies (such asstock-outs) or by staff issues Are there conflicts between the needs and objectives of individual stores vs head officetargets? Are jobs suitably designed?
Recruitment and selection	Are there sufficient staff in the store? Are shift patterns appropriate?

Learning and development	Is any customer-focused training required? Is any other personal skills training needed for in-store staff?
Communications and employee relations	Ensure all staff are aware of the volume and reasons for customer complaints Institute 'service quality' groups
Pay and benefits	Are rewards a source of employee dissatisfaction? Could there be an element of performance-related pay, based on customer feedback?
HR policies	Review why staff leave Are any policies (such as overtime requirements, shift patterns) a source of discontent?

Professional skills focus: Assimilating and using information

All strategic decisions have implications for human resource management, just as changes to human resource policies can impact upon successful strategic implementation. Read the scenario exhibits carefully, making sure you gather all the relevant information, and be aware of the potential HRM impacts of any recommendations you make.

Interactive question 2: Financial service companies

Since the beginning of the 1990s financial services institutions (eg, banks and insurance companies) have pursued the following business strategies:

- Shift to telephone and internet-based servicing of customer accounts, leading to reductions in the total number of high street branches
- Expansion in range of financial products offered at branches
- Introduction of 'customer service ethos' with emphasis on providing advice and selling products while increasing reliance on electronic technologies to handle routine transactions
- increasing use of 'offshore' call centres and transactions processing centres

Requirement

What impact would these changes have had for the following factors?

- Forecast human resource demand
- Forecast human resource supply
- Training and development
- external recruitment

See **Answer** at the end of this chapter.

2.5 HR and the knowledge economy

A knowledge economy is one in which knowledge is the prime source of competitive advantage. Remember, the source of competitive advantage is either cost leadership or differentiation (each with or without focus). Examples of businesses in the knowledge economy include:

(a) Engineering, such as Rolls-Royce jet engines. The engines are the result of very advanced research, design, development, testing and incremental modification.

(b) Software, such as HP Autonomy. This company specialises in pattern recognition in unstructured data: speech, faces and car licence plates.

(c) Hardware, such as Apple Inc. The invention and design of new concepts and knowing how to produce them (mainly by subcontracting to suitable companies) reliably and efficiently.

(d) Biotechnology, such as GlaxoSmithKline plc or Convergence Pharmaceuticals and the development of new drugs and vaccines.

The knowledge economy poses the following challenges to HR managers:

(a) Finding and recruiting enough people with the right skills. The skills and abilities required can be very high and very scarce.

(b) Providing an environment in which employees' skills and abilities are used to their maximum potential.

(c) Motivating and developing employees.

(d) Retaining employees. When an employee leaves, valuable knowledge can be lost and can be transferred to a competitor business.

2.5.1 HR and big data

In the chapters "Data analysis" and "Information Strategy" of this Manual, we have highlighted how big data and big data analytics could provide opportunities for organisations to improve their business insight and their decision-making. However, one of the key challenges which big data presents is getting from the underlying data to interesting and useful information.

The head of ICAEW's IT Faculty, Richard Anning (quoted in the February 2016 edition of economia) has suggested that exploiting big data requires:

- skills in computing and the manipulation of data;
- statistical skills to build models; and
- knowledge of the business areas to ask the right questions and enable interpretation of the results.

Anning continues by suggesting that this usually requires teamwork between specialists in IT, data science and different business functions. However, if organisations do not currently have sufficient staff with the necessary skills, they will either need to recruit additional staff, or train existing staff, before they are able to take advantage of big data. This could also apply to machine learning and AI, which – in effect – could be seen as applications of big data.

2.5.2 Automation

Organisations could also consider the potential for automation/robotic process automation (RPA), and the impact this could have on its HR model. As we highlighted in the chapter "Strategic analysis", RPA could reduce the amount of staff required to deal with rules-based processes, leaving staff to focus on more complex processes instead.

More generally, technological advances (automation, and algorithms used in AI and machine learning) are likely to reduce the number of workers required for certain tasks.

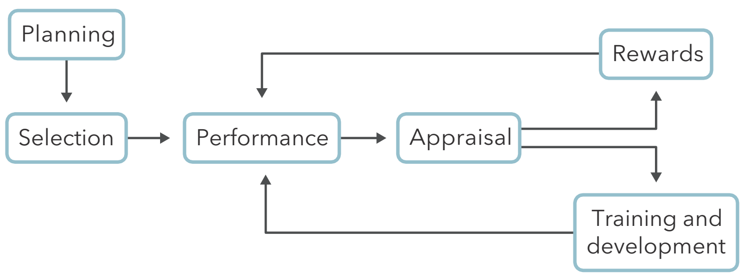
On the other hand, there is increasing demand for new, specialist roles related to emerging technologies: AI specialists; big data specialists; process automation experts; information security analysts; and human-machine interaction designers.

An important issue for HRM in organisations will be identifying the skills that it needs to be successful and take advantage of new opportunities, and ensuring that its workforce is equipped with these skills, either by retraining and upskilling existing staff, or by recruiting new workers.

2.6 The human resource cycle

In section 1 of this chapter, we looked at Fombrun et al's model of the HR cycle (Figure 10.1) but that model can be adapted to include HR planning, which is a key element of the HR cycle:

Figure 10.3: HRM and HR planning



HR planning

HR planning must link back to the organisation's strategic plan. The number of staff needed with given skills will depend on business plans (for example, any plans to develop new products, or expand into new markets); the skills needed might depend on whether strategic advantage relies on cost leadership or differentiation.

Personnel information systems can be of great help at this stage, if not essential, because these systems should hold information about current employees and their skills and be able to predict how many employees might be needed in the future.

For example, assume that every branch of an organisation requires, ideally, one manager, two sales people, three part-qualified engineers and two qualified engineers. If the strategic plan says that 20 new branches are to be opened in the next three years, then the personnel information system can compare current numbers of personnel who have appropriate skills with the number that will be needed after three years. The personnel information system will also be able to identify any current employees who are due to retire, estimate the number who might leave, forecast how many part- qualified engineers should attain full qualification and also how many employees might achieve management status. From these calculations a recruitment and development budget can be identified.

	Managers	**Salesper-sonnel**	**Part-qualified engineers**	**Qualified engineers**
Current employees (100 branches)	100	190	310	195
Due to retire	(5)	(1)	0	0
Estimated leavers	(10)	(30)	(25)	(70)
Promotion			(100)	100
	85	159	185	225
Employees needed (120 branches)	120	240	360	240
To be recruited	**35**	**81**	**175**	**15**

CHAPTER 10

HRM and gap analysis

In the context of business strategy, we have seen that managers can use gap analysis to identify gaps between forecast performance and target performance, with a view to finding new markets, launching new products or finding other ways to close the gap.

However, the idea of gap analysis can also be applied to HR, as in the example above. The example shows that there is a shortfall between the future forecast number of engineers (if no additional recruitment takes place) and the number of engineers who will be needed to support the organisation's planned branch openings. In turn, this identifies the number of additional engineers who need to be recruited as a result of the planned openings. An alternative approach to filling a resource gap would be to consider whether some jobs which are currently done manually could be automated. In this way, an organisation might be able to use IT as a substitute for labour to overcome a staffing resource constraint.

Skills gap

Instead of looking purely at the numbers of people employed, organisations also need to consider whether their staff members have the skill sets necessary to deliver a strategy. If there is a 'gap' between the current skill set of a person or group compared to the required skill set, this represents a skill gap. A strategy then needs to be devised to mitigate that gap; for example, by training staff to use a new software program.

2.6.1 The impact of increased job mobility on HR planning

Historically, many employees looked for 'a job for life' and low employee turnover was expected. That pattern still exists in some economies, such as Japan, but in many countries moving from job to job, gaining skills as you go, is the norm. If more people leave, then there is a greater burden on recruitment to replace them. Furthermore, unless the organisation's knowledge management has been successful, people leaving take with them valuable knowledge and this impoverishes the organisation.

2.7 HR planning – overview

HR planning should be based on the organisation's strategic planning processes, with relation to analysis of the labour market (internal and external), forecasting of the external supply and internal demand for labour, job analysis and plan implementation. HR planning concerns the acquisition, utilisation, development and return of an enterprise's human resources. HR planning may sometimes be referred to as 'workforce planning' or 'workforce strategy'. HR planning involves:

- budgeting and cost control
- recruitment
- retention (company loyalty, to retain skills and reduce staff turnover)
- downsizing (reducing staff numbers)
- training and retraining to enhance the skills base
- dealing with changing circumstances

Human resources are hard to predict and control:

(a) **Demand.** Environmental factors (eg, the economy) create uncertainties in the demand for labour.

Estimating demand: Planning future HR needs requires accurate forecasts of turnover and productivity (eg, if fewer staff are required for the same output). The demand can be estimated from the markets a company plans to operate in, the products and services it plans to offer, and its strategy for offering them (for example, pursuing a cost leadership model or differentiation; and/or how many functions to perform in-house as opposed to being outsourced).

(b) **Supply.** Factors such as education and the demands of competitors for labour create uncertainties in the supply of labour.

The available **supply** of labour, competences and productivity levels may be forecast by considering internal and external factors.

Internal factors

The competences, skills, trainability, flexibility and current productivity level of the existing workforce

The structure of the existing workforce in terms of age distribution, skills, hours of work, rates of pay and so on

– The likelihood of changes to the productivity, size and structure of the workforce

External factors

The present and potential future supply of relevant skilled labour in the **external labour market** will be influenced by a range of factors. These could include general economic conditions, competitor activity, demographic changes, government policy (eg, relating to labour mobility) and the changing nature of work (leading to changes in the skills required).

(c) **Goals**. Employees have their own personal goals, and make their own decisions about whether to undertake further training. When large numbers of individuals are involved, the pattern of behaviour which emerges in response to any change in strategy may be hard to predict. There can sometimes be powerful resistance to change.

(d) **Constraints**. Legislation as well as social and ethical values constrain the ways in which human resources are used, controlled, replaced and paid.

Figure 10.4: Stages of HR planning

1. Strategic analysis
- Of the environment
- Of the organisation's employees' strengths and weaknesses, and the opportunities and threats facing the organisation
- Of the organisation's use of employees
- Of the organisation's objectives

↓

2. Forecasting
- Of internal demand and supply
- Of external supply

↓

3. Job analysis
- Investigating the tasks performed in each job
- Identifying the skills required

↓

4. Recruitment and training
- Recruiting and selecting required staff
- Training and developing existing staff
- Redeployment
- Redundancies

Points to note based on the process of HR planning

HR strengths and weaknesses – An organisation's HR strengths and weaknesses need to be analysed so as to identify skills and competence gaps. HR planning is important not simply for analysing overall numbers of staff, but also for looking at the mix of skills within the workforce. While headcount numbers are always likely to be a concern, it is equally important to consider whether the current workforce has the skills and attitudes required to sustain organisational success in the future.

Efficiency – An organisation needs to know how effectively it is using its staff (for example, utilisation statistics, idle time). If staff are currently not fully utilised, how far can future growth be staffed by the existing staff, rather than having to recruit additional staff?

Timescale – If an organisation can identify a 'gap' in advance, this will allow recruitment and training to be planned in advance. However, an unplanned 'gap' which needs filling immediately will require instant recruitment.

The importance of HR planning

It is arguable that forecasting staff and skill requirements has become more difficult in recent times because of the increasing uncertainty and rate of change in the business environment. However, it has also arguably become more necessary, because the risks of 'getting it wrong' (particularly in an era of global economic recession) are correspondingly greater.

In this respect, HR planning can be seen as a form of **risk management.** It involves realistically appraising the present and anticipating the future (as far as possible) in order to get the **right people** into the **right jobs** at the **right time** and managing employee behaviour, organisational culture and systems in order to **maximise the human resource capability** in response to anticipated opportunities and threats.

An attempt to look beyond the present and short-term future, and to prepare for contingencies, is increasingly important. Some manifestations of this are outlined below.

(a) Jobs in innovative and fast-changing contexts may require experience and skills which cannot easily be bought in the marketplace, and the more complex the organisation, the more difficult it will be to supply or replace highly specialised staff. The need will have to be anticipated in time to initiate the required development programmes. The decline of the 'job for life' and the common desire to gain wide and rounded experience have contributed to higher rates of employee attrition. Leavers must be replaced with suitable staff. At senior levels, succession planning should identify potential replacements, internal or external, for those expected to retire or simply move on.

(b) Employment protection legislation and increasing public demand for corporate social responsibility make downsizing, redeploying and relocating staff (eg, in response to economic recession) a slow and costly process.

(c) Rapid technological change is leading to a requirement for human resources that are both more highly skilled and more adaptable. Labour flexibility is a major issue, and means that the career development and retraining **potential** of staff is at least as important as their actual qualifications and skills. Thus, 'trainability' is now a major criterion for selection.

(d) Organisations that differentiate themselves in the market through superior customer service or other people-related activities need to place people at the centre of their corporate strategy. If their people are to be the difference they need to invest time and effort in finding and developing the right ones.

(e) The scope and variety of markets, competition and labour resources are continually increased by environmental factors such as the expansion of the European Union, the globalisation of business and the explosive growth of e-commerce.

(f) Information and Communication Technology has made available techniques which facilitate the monitoring and planning of HR over fairly long time spans: accessing of demographic and employment statistics, trend analysis, 'modelling' of different scenarios and variables, and so on.

(g) Labour costs are a major proportion of total costs in many industries and must be carefully controlled. Cost control action will involve carefully planned remuneration schemes, strict control of headcount and avoidance of waste in such forms as overstaffing and unnecessary activity. Business process re-engineering and the de-skilling of jobs may lead to redundancies, especially among overqualified staff.

Armstrong sums up the aims of HR planning as follows:

(a) To attract and retain the number of people required with the necessary skills, expertise and competences

(b) To anticipate potential surpluses or shortfalls which will need to be adjusted

(c) To develop a well-trained and flexible workforce which will support organisational adaptation to external changes and demands

(d) To reduce dependence on external recruitment to meet key skill shortages (by formulating retention and development strategies)

(e) To improve the utilisation of people (most notably by developing flexible working systems)

2.7.1 HR analytics

In the chapter "Data analysis" we looked at how organisations can use the insights gained from data analytics to manage their performance more effectively.

Equally, though, organisations could also use HR analytics to help them recruit, retain and reward people more effectively. For example, data and analytics could help organisations assess whether their workforce is matched with future demand (in terms of both employee numbers and skills). Similarly, analytics could help organisations identify their key staff (in terms of the value they create) and how likely it is that they will leave the company in the near future.

However, in the same way that we highlighted the need for managers to be able to trust operational data as the basis for data analytics, so organisations need to collect and maintain accurate HR data in order for them to apply HR analytics.

2.8 Flexible workforce management

It has been suggested that **long-range, detailed people planning** is a necessary form of risk management, preparing businesses for foreseeable contingencies.

However, organisations are also regularly searching for opportunities to reduce costs and/or to increase the productivity of their workforces.

Increasingly, traditional staffing models – based around full-time employees, working a standard number of hours each week – are proving inefficient in terms of matching demand and supply. In peak times, there is too much work for the employees available (or large amounts of overtime have to be paid) while employees are under-utilised in less busy periods.

As a result, organisations are looking to implement workforce models which match employees to work more efficiently, and they are doing this through flexible workforce management.

Equally, flexible working can be attractive to employees, for example by helping them to manage their work/life balance, or combining responsibilities as a parent of young children with their careers. As such, offering flexible working arrangements can help organisations to attract and retain staff. In its 2017 report, *Flexible working: a talent imperative*, Timewise identified that 63% of full-time employees in the UK already worked flexibly in some way, while 87% of full-time employees either already worked flexibly in some way, or said they wanted to.

2.8.1 Elements of workforce flexibility

There are three main elements of workforce flexibility: **where** someone works; **when** they work; and **how much** they work:

Flexibility in where someone works

This could involve:

- Working from home (remote working) for some or all of the time
- Working in several different offices or on several different sites within the same organisation
- working remotely from a number of different sites

When we discussed cloud computing in the previous chapter, we noted that 'accessibility' was one of the key benefits of a cloud-based system. If data is stored in the cloud, employees can access it from anywhere there is internet connectivity. As such, cloud-based systems help to support the flexibility around where people can work.

Flexibility in when someone works

This could involve:

- Flexible start or finish times (eg, working 8-4 or 10-6, rather than having to work 9-5)
- Compressed work (eg, working 4 days of 9 hours each, and then having 3 days off, instead of working 5 days of 7 hours each, and then having 2 days off)
- shift work (particularly important for organisations which operate 24 hours a day)

An important consideration when flexing when someone works will be trying to match employees' availability with workload peaks and troughs. Doing this could be a more cost-effective way of managing resources than having to hire additional temporary staff, or having to pay large amounts of overtime, to meet workload demands in busy periods.

Note: We saw an example of this in the chapter "Strategic analysis", Section 4.6, when we discussed how the gas supply network Wales & West Utilities had changed its engineers' shift patterns to fit more accurately with demand for their services.

Flexibility in how much someone works

This could involve:

- Working part time
- job-sharing

2.8.2 Multi-skilling

An additional way in which organisations can increase flexibility in their workforce is through multi- skilling. If employees are multi-skilled, the organisation has the flexibility to arrange them in the way which best fits its needs at any given time – for example, by asking them to work in an area of the business that requires additional resource at a particular time.

In this respect multi-skilling can also help reduce an organisation's employee costs, because a business with a multi-skilled labour force may be able to operate with fewer employees than one whose employees are not multi-skilled. For example, workers who are only skilled in one area may have periods of idle time, waiting for work to become available. However, multi-skilled workers may be able to move to different areas, reducing the amount of idle time, and meaning the overall level of work can be carried out by fewer people.

Multi-skilling could also increase job satisfaction among employees – by increasing the variety in their work, and giving them the opportunity to learn and apply new skills.

2.9 Remote working (Home working)

One of the major changes in the way workforces are structured has been the increasing number of remote workers or home workers.

An important factor in the development of remote working is the beneficial impact it can potentially have on employees' work–life balance. Employees value the time and money savings which remote working offers them, compared to having to commute to work. Some employees may also value the autonomy and independence which working at home affords them. Since companies have increasingly recognised the importance of attracting and retaining talented staff, they have also realised the need to offer staff flexibility in their working arrangements.

Remote working could also improve productivity. On the one hand, if remote working leads to higher job satisfaction, higher retention and lower absenteeism, these factors could contribute to increased productivity. On the other hand, remote workers could also be more productive than 'office-based' colleagues because they are able to work without interruption, for example from office meetings.

Nevertheless, while some employees value remote working, others may not want to work at home; for example, because they feel it isolates them from colleagues and shared knowledge; or because they would prefer to keep their 'private' lives separate from their 'work' lives.

IT and remote working

Developments in technology have been crucial in facilitating the growth of home working. For example, remote workers need a laptop or personal computer, with reliable internet access, and secure remote access to a company's internal networks and internal messaging systems (eg, sharepoints) in order to work from home effectively.

Video-conferencing (for example, through Skype or Google Video Chat) can also be valuable for contacting remote employees, particularly in relation to important matters which it may not be appropriate to discuss by email.

In general, technology has been essential for the development of remote working, because it provides opportunities for exchanges of information between employees working remotely and their colleagues or managers in a different location.

Communication and remote working

Nonetheless, poor workplace communication is often seen as the biggest disadvantage of remote working. In this respect, the growth of remote working presents new issues for managers in relation to managing staff.

Socialisation and relationship building are important aspects for helping remote employees to feel included within an organisation. As such, managers' communication skills and relationship building skills will be important in ensuring that remote workers do not feel isolated. While many remote workers value the greater independence which they gain from working at home, it remains important for managers to communicate regularly with these workers in order to build trust and to maintain a relationship with them.

Equally, managers will need to provide the employees with clear goals and expectations for their work, as for any other employee in the company. In order to manage remote employees effectively, managers should adopt a 'management by objectives' approach, as opposed to managing by observation. This will involve setting goals and action plans, and then evaluating employees' performance based on the outputs or results.

Context example: The perils of home working

An article in *The Guardian* newspaper highlighted the findings from research which indicated that home working can take a 'heavy psychological toll' where workers are encouraged to adopt an 'always on' mentality, where the lines between work and home life are increasingly blurred. The article (Jowit, 2016) highlighted that "working away from the office can isolate employees from social networks and career opportunities while fostering a 'grazing' instinct that keeps dangerous stress hormones at persistently high levels".

'Grazing' is the term used to describe the compulsion to work outside of normal office hours. The article highlighted that working ever longer days increased stress and depression, and led to poor diet and sleep among home workers. Research carried out by the University of Bedfordshire found that "work has become more intense as new technology enables, and even forces, people to work faster, do more, and multi-task". This in turn has led to 'presenteeism' where people continue to work even when they are off ill.

According to an Ofcom report, on average adults in the UK now [2016] 'spend more time using technology than sleeping each day'. (Jowit, 2016)

Source: Jowit, J. (2 January 2016) 'Work-life balance: flexible working can make you ill, experts say'. *The Guardian*. [Online]. Available from: www.theguardian.com [Accessed 28 April 2017]

2.10 Contract workers and freelancers

Perhaps the most significant change in workforce management in recent years has been the increased use of freelance or contract workers in place of permanently employed staff.

In this way, the role of HRM is to ensure that the appropriate people are brought together to complete a specific project or task. However, such a model fundamentally changes the nature of job vacancies, compared to a model in which organisations employ staff on a full-time basis.

The freelancing model can offer benefits for organisations and workers alike. For organisations, particularly ones involved in project work, the use of short-term contracts enables particular skills to be brought in as and when required. This means the organisations only incur employee costs when work is required, rather than having to pay regular salaries (and associated costs) for full-time members of staff.

Equally, however, the freelance model can have benefits for workers, because they can be selective about the work they undertake, based on the opportunities they are most interested in (subject to there being sufficient work available to provide them with an income to live on).

Gig economy

The increased use of freelance workers also gives rise to the concept of a gig economy.

A gig economy is a labour market characterised by the prevalence of short-term contracts or freelance work instead of permanent jobs. Workers get paid for the 'gigs' they do, instead of receiving a regular wage. The gig economy is prevalent among couriers (eg, Deliveroo) and ride- hailing drivers (eg, Uber).

Proponents of the gig economy claim it offers flexibility for companies and workers. Companies only pay when work is available, and do not incur staff costs at times when there is no demand. Similarly, workers can benefit from flexible hours, and can control how much time they work, and how they juggle work around other priorities in their lives.

However, the gig economy has also proved contentious because workers in the gig economy are classed as independent contractors, rather than employees. This means they have no rights to receive the minimum wage, paid holiday, or sickness pay, and they have no protection against unfair dismissal.

A number of labour disputes have arisen in this respect, with people who work for companies such as Uber and Deliveroo fighting to have their status upgraded from that of an independent contractor, to that of a worker for the company (employee). In a high profile case which could have significant implications for the gig economy, a 'contractor' who had worked exclusively for the plumbing company Pimlico Plumbers for six years won a ruling that he should be classed as a worker, rather than being classified as self-employed.

2.11 The people plan

Once the analysis of HR requirements has been carried out, and the various options for fulfilling them considered, the **people plan** will be drawn up. This may be done at a strategic level. It will also involve tactical plans and action plans for various measures, according to the strategy that has been chosen. Typical elements might include the following:

(a) **The resourcing plan**: approaches to obtaining skills/people within the organisation, and by external recruitment

(b) **The internal resource plan**: availability of skills within the organisation; plans to promote/redeploy/develop

(c) **The recruitment plan**: numbers and types of people, and when required; sources of candidates; the recruitment programme; desired 'employer brand' and/or recruitment incentives

(d) **The training plan**: numbers of trainees required and/or existing staff who need training; training programme

(e) **The redevelopment plan**: programmes for transferring or retraining employees

(f) **The** flexi bility **plan**: plans to use part-time workers, job sharing, home working, outsourcing, flexible hours arrangements and so on

(g) **The productivity plan**: programmes for improving productivity, or reducing manpower costs; setting productivity targets

(h) **The downsizing plan**: natural wastage forecasts; where and when redundancies are to occur; policies for selection and declaration of redundancies; redevelopment, retraining or relocation of employees; policy on redundancy payments, union consultation and so on

(i) **The retention plan**: actions to reduce avoidable labour wastage

The plan should include budgets, targets and standards. It should allocate responsibilities for implementation and control (reporting, monitoring achievement against plan).

2.12 People and strategic success

Bratton and Gold's definition of HRM (see section 1 above) highlights that human knowledge and skills are a strategic resource for an organisation, and that they can play a vital role in achieving sustainable competitive advantage.

The **strategic significance** of having the right people working effectively increases as technology becomes more complex, the importance of knowledge work increases and strategy relies more and more on the talents and creativity of human beings.

An important aspect of HRM, therefore, consists of the various activities that attempt to ensure the organisation has the people it needs when it needs them. These activities include **recruitment**, **retention** and, when necessary, **reduction** of headcount.

However, aspects of HRM (such as setting **performance objectives** and **reward management**) also play an important role in the performance management and control of the organisation. In this respect, HRM follows a similar control model as is used for the overall strategic and operational control of an organisation:

Step 1 Goals are set

Step 2 Performance is measured and compared with target

Step 3 Control measures are undertaken in order to correct any shortfall

Step 4 Goals are adjusted in the light of experience

However, it is crucial to recognise that these goals link to both strategic and operational success.Effective performance management requires that the strategic objectives of the organisation are broken down into layers of more and more detailed sub-objectives, so that **individual performance** can be judged against personal goals that support and link directly back to corporate strategy.

2.13 People and operational success

Recruitment and selection

Operational success relies on people's ability to do their jobs properly. This could include their ability to perform a range of activities, such as being able to operate machinery correctly, use computers, manage others, or perform specific technical routines. In this respect, operational success requires the proper **recruitment** and **selection** of people with the right skills for the particular job, and the provision of further training as the requirements may dictate.

An organisation's staff are a very important resource, and they are likely to play a crucial role in an organisation achieving its strategic objectives. Therefore, it is vital that an organisation has the right number (quantity) and the right quality of staff to achieve its objectives.

In this respect, HR planning is very important – not only in forecasting the numbers and levels of staff an organisation is likely to need, but also in deciding whether, for example, the staff should all work 'in house' or whether it might be more appropriate to outsource some functions, or to move to a more 'network' based organisation rather than using a more formally structured one.

In this way, recruitment and HR planning play a vital role in ensuring that organisations have the necessary quantity and quality of staff to facilitate their success.

Objectives and performance targets

Staff should also have individual work **objectives** and **performance targets** (for example the number of sales calls made) and their performance should be measured against these objectives. These individual objectives and targets should be derived from department and organisation objectives. This should mean that, in theory, if every individual achieves their objectives then their department will achieve its objectives, and if every department achieves its objectives then the organisation as a whole will achieve its objectives.

Two factors which play an important role in determining whether employees achieve their objectives are **management** and **motivation**. We will look at a number of aspects of employee performance management later in this chapter, but in general terms we can highlight the link between performance and motivation by reference to the following equation (after Vroom):

Performance = Ability × Motivation
(where Motivation = Desire × Commitment)

In this equation, desire is seen as enthusiasm for a task, and commitment is about putting in effort. Therefore, as well as ensuring that employees have the necessary abilities to carry out their jobs, managers need to make sure that their staff have the desire and commitment to do so efficiently and successfully.

Staff retention

Keeping staff motivated can also help an organisation retain staff more effectively, and in doing so can reduce the costs associated with **staff turnover**. These include the time and costs spent in advertising for and recruiting new staff; time and costs spent training new staff, and the 'learning curve' associated with new staff getting up to speed with their jobs; and the loss of organisational knowledge which occurs when individuals (particularly key employees) leave an organisation.

3 Appraisal and performance management

Section overview

Appraisal is fundamental to performance management, forming a link between individual members of staff and an organisation's overall strategy.

- However, within this overall setting, appraisal has two different purposes – judgement and development – and there is an inherent conflict between the two which has never satisfactorily been resolved.
- The choice of targets selected for performance measurement systems can also have a significant impact on the effectiveness of those systems. It is possible that unintended consequences of performance targets could end up having an adverse effect on performance.

While the need for some kind of performance assessment is widely accepted, appraisal systems are frequently criticised as bureaucratic, ineffective and largely irrelevant to the work of the organisation. Partly as a response to this view, modern approaches attempt to enhance the relevance of appraisal by linking it to organisational strategy and objectives. This emphasises the use of appraisal as an **instrument of control over the workforce**. However, running in parallel with this trend is an awareness, among HR professionals at least, that appraisal systems are fundamental to the aspirational model of HRM outlined above and to the cooperative psychological contract.

3.1 The purpose of appraisal

Appraisal is a process that provides an analysis of a person's overall capabilities and potential. An important part of the appraisal process is assessment – collecting and reviewing data on an individual's work.

The purpose of appraisal is usually seen as the **improvement of individual performance**, but it may also be regarded as having close links to a wide range of other HR issues, including discipline, career management, identifying training and development opportunities, motivation, communication, selection for promotion and determining rewards. It is also fundamental to the notion of **performance management**, which may be regarded as trying to direct and support individual employees to work as effectively and efficiently as possible so that the individual's goals are aligned with the organisation's goals and business strategy.

Within this wider view, regular appraisal interviews can be seen as serving two distinct purposes:

(a) **Judgement**: Judgemental appraisals are undertaken in order for decisions to be made about employees' pay, promotion and work responsibilities.

These decisions have to be made on the basis of judgements about the appraisee's behaviour, talent, industry and value to the organisation. Such judgements can be uncomfortable for both appraiser and appraisee and lead to hostility and aggression.

(b) **Development**: The focus of developmental appraisals is to assess employees' training and development needs.

Development appraisal can contribute to **performance improvement** by establishing individuals' development needs, progress and opportunities. This is the more supportive aspect of appraisal, but still requires the appraiser to make decisions about the appraisee.

"The tension between appraisal as a judgemental process and as a supportive development process has never been resolved and lies at the heart of most debates about the effectiveness of appraisal at work." (Bratton and Gold)

Feedback on performance has been widely regarded as an important aspect of the participative style of management which, in turn, has been promoted as having potential to motivate higher performance. However, the link between feedback and motivation is not simple and an important aspect of the judgemental part of appraisal is its potential to **demotivate**.

The classic study which highlighted this was carried out by Meyer et al at the General Electric Company in 1965. Gold suggests that their findings are still relevant and provides a summary:

(a) Criticism often has a negative effect on motivation and performance.

(b) Praise has little effect, one way or the other.

(c) Performance improves with specific goals.

(d) Participation by the employee in goal-setting helps to produce favourable results. (Don't forget the whole point of performance management is to improve performance!)

(e) Interviews designed primarily to improve performance should not at the same time weigh salary or promotion in the balance.

(f) Coaching by managers should be day to day rather than just once a year.

From their research in the 1980s into the effectiveness of self-appraisal as a means of evaluating performance, Campbell and Lee pointed out the ways in which discrepancies may arise between people's own opinions of their performance and their supervisors' opinions of their performance.

(a) **Information**. There may be disagreement over what work roles involve, standards of performance and methods to be used.

(b) **Cognition**. The complexity of behaviour and performance leads to different perceptions.

(c) **Effect**. The judgemental nature of appraisal is threatening to the appraisee and, possibly, to the appraiser.

Since Meyer *et al*'s study there has been a long search to find a way of appraising employees which reduces the feeling that feedback is about criticism.

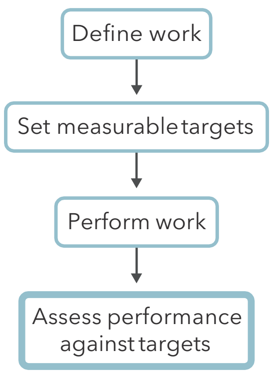
One approach to mitigating the undesirable effects of judgemental appraisal has been the use of **multisource feedback**, including 360 degree appraisal, in order to provide a demonstrably more **objective** review. Such approaches have tended to be used principally for appraisal of managers. Multisource feedback can be seen as empowering for staff. It may also be seen as reinforcing for good management behaviour (since it shows managers how they are seen by others) and likely to improve the overall reliability of appraisal. However, research has shown that the effects can vary significantly.

3.1.1 Appraisal as control or development?

The last of Meyer *et al*'s findings, "coaching by managers should be day to day rather than just once a year", highlights the role of managers in the **development** of their staff on a continual basis.

However, any shift towards a more developmental view of appraisal sits uncomfortably with the traditional management objectives of having a means of measuring, monitoring and controlling performance. Most appraisal schemes are still ultimately **performance control schemes**, as illustrated in Figure 10.5 below.

Figure 10.5: Appraisal as a performance control system



This somewhat rigid approach, based on the drive for rationality and efficiency in organisations, highlights what Mintzberg has called '**machine bureaucracy**'. According to this approach, getting organised, being rational and achieving efficiency are the best bases on which to structure an organisation.

This mechanistic view of organisations will, almost inevitably, mean that employees will view appraisals as control systems, and employees will feel they are being controlled by appraisal systems. Such a situation is unlikely to motivate employees or to generate trust, commitment and high productivity, though.

Employees' trust and commitment to an organisation will come about through management creating a culture that supports people's long-term development. Assessment and appraisal could play a key part in this shift, but only if HR managers can convince organisations that, while control remains important, development needs to play a much greater role in the appraisal process.

Interactive question 3: Appraisals

The Jackson Business Centre (JBC) provides professional courses for students of accounting, law and marketing.

JBC has operated a formal performance appraisal system, supported by standardised procedures and paperwork, for a number of years. The system has clear organisational objectives, which are based on staff development and improved performance, rather than being a basis for pay reviews or paying individual annual bonuses. However, the scheme is not well regarded by either managers or staff and its objectives are not being met.

Senior managers complain about the amount of time that is taken up holding appraisal interviews and then completing the necessary paperwork.

Exit interviews are conducted whenever someone leaves JBC, and a review of a sample of recorded comments indicates staff feelings on the scheme very clearly: "appraisal is just a paper exercise", "a joke", "a waste of time and effort".

Requirement

Discuss the possible reasons why the objectives of the formal appraisal system are not being met. See **Answer** at the end of this chapter.

3.2 HRM and performance management

Performance management systems attempt to integrate HRM processes with the strategic direction and control of the organisation. Remember the cycle of control we mentioned earlier:

Step 1 Goals are set

Step 2 Performance is measured and compared with target

Step 3 Control measures are undertaken in order to correct any shortfall

Step 4 Goals are adjusted in the light of experience

You should be familiar with this kind of management control in business organisations, where the balanced scorecard, for example, is often used as the basis for such an approach.

Performance management requires that the strategic objectives of the organisation are broken down into layers of more and more detailed sub-objectives, so that individual performance can be judged against personal goals that support and link directly back to corporate strategy.

The performance management system, although it emphasises the control aspects of appraisal, must also allow for the **development** aspect of appraisal, providing for coaching and training where needed.

3.3 Target selection

We have noted how performance management acts as a control system in measuring people's achievement against targets. However, in order for performance management to be beneficial, it is important to select the right measures or targets at the outset when setting performance goals.

The adage "what gets measured, gets done" is often used in relation to corporate performance management, but it is equally relevant here. If the 'wrong' performance measures or targets are set, this could lead to staff behaviour being different to that originally intended, and ultimately adversely affecting performance.

We looked at the **behavioural implications of performance targets** in section 4.13 of the chapter "Strategic performance management", but they are also important here, in highlighting the impact that remuneration and reward structures can have on organisational behaviour.

Context example: Bankers' bonuses

In the aftermath of the global financial crisis of 2008–09, a lot of media attention focused on bankers' bonuses. A number of investment banks link employees' annual bonuses to the amount of money they earn in that year, a short-term approach which can influence employees' decision-making.

Critics argue that the bonuses encourage risky behaviour that maximises profits in the short term but could potentially be loss-making in the longer term.

The sub-prime mortgage crisis in the US in 2007 was a good example of this. The mortgage bond market proved extremely profitable for the banks in the short term, but once mortgage-holders started defaulting on their loans the banks had to foreclose them, causing the loans to be written off.

During the bull market (before 2007) certain financial packages made a great deal of money for the banks in the short term, resulting in their staff receiving large bonuses. However, those same financial packages failed shortly afterwards, triggering the financial crisis.

The individual performance measures selected should be relevant to the overall objectives of the organisation. Individuals' objectives must reflect the overall strategic initiatives management are taking. For example, if management is focusing on quality, performance measures must reflect this by measuring employees on their contribution to achieving quality targets.

This sort of situation represents a **contingency approach** to reward: that the organisation's strategy is a fundamental influence on its reward system, and in turn the reward system should support the organisation's chosen strategy.

Targets and motivation

Some employees respond well to difficult targets and are motivated to attain them. Others may find the targets daunting and feel they are unachievable, and indeed there may be valid reasons why they believe this. For example, in an economic downturn, a number of businesses reduce the amount they spend on their IT budgets. Therefore if a salesperson in an IT company was given a target of increasing sales 25% on the prior year they would appear to be justified in thinking this target is unachievable.

Equally, care must be taken when using certain measures, for instance numbers of sales, as the basis for rewarding employees. As an example, here are some possible negative consequences of using sales numbers as a primary performance measure:

(a) The salesperson might offer potential customers large discounts in order to make the sale (but with the effect that the company makes a loss on the sale).

(b) The salesperson is concerned solely with the immediate sale, which may lead to poor after-sales service, low customer satisfaction levels and poor customer retention.

(c) The salesperson might use expensive promotions that actually generate less in sales value than they cost, but which allow the salesperson to register a number of sales.

(d) Once a salesperson has reached their target figure for a period they might look to defer future sales into the next period.

It may be better to use a balanced mix of targets – for example, setting customer care and customer profitability targets as well as the number of sales made.

It is also important to make sure whatever goals are set that they are capable of being controlled by the individual, otherwise the individual is likely to become demotivated.

In addition, if processes are being redesigned and job roles are changing, performance measures must be adapted to reflect the new jobs and responsibilities.

However, it is important that people are not given too many objectives and targets. There is a danger that people could become overwhelmed by the sheer number of goals they are expected to meet, but with the result that they do not know what their priorities are or what aspects of their work they should give most attention to.

Finally, it is useful to remember the acronym SMART when setting performance targets: are the targets specific, measurable, achievable, relevant and time-bound?

Professional skills focus: Structuring problems and solutions

Performance targets should be challenging for employees but if they are unachievable the individual is likely to be demotivated. Targets should be relevant to the overall objectives of the organisation but too many measures can be overwhelming for employees. Demonstrate your professional skills by anticipating such problems when developing solutions and making recommendations about a company's performance targets.

4 The impact of remuneration and reward packages

Section overview

A reward system should fulfil three key behavioural objectives: supporting staff recruitment and retention; motivating employees to high levels of performance; and promoting compliance with workplace rules and expectations.

- A contingency approach to reward accepts that an organisation's strategy is a fundamental influence on its reward system, and that its reward system should support its chosen strategy.
- Equally, however, an effective reward system should align individuals' goals with an organisation's strategic goals.

4.1 Reward

Employment is fundamentally an economic relationship; the employee works as directed by the employer and, in exchange, the employer provides reward. The relationship inevitably generates a degree of tension between the parties, since it requires **cooperation** if it is to function, but it is also likely to give rise to **conflict** since the employee's reward equates exactly to a cost for the employer.

Definition

Reward: All the monetary, non-monetary and psychological payments that an organisation provides for its employees in exchange for the work they perform.

Rewards may be seen as **extrinsic** or **intrinsic**.

(a) **Extrinsic rewards** derive from the **job context**; such extrinsic rewards include pay and other material benefits as well as matters such as working conditions and management style.

(b) **Intrinsic rewards** derive from **job content** and satisfy higher-level needs such as those for self- esteem and personal development.

The organisation's reward system is based on these two types of reward and also includes the policies and processes involved in providing them.

Reward is a fundamental aspect of HRM and the way an organisation functions. It interacts with many other systems, objectives and activities.

- It should support the overall strategy.
- It is a vital part of the psychological contract.
- It influences the success of recruitment and retention policies.
- It must conform to relevant laws and regulations.
- It consumes resources and must be affordable.
- It affects motivation and performance management.
- It must be administered efficiently and correctly.

The dual nature of reward mentioned earlier – a benefit for the employee, a cost for the employer – means that the parties in the relationship have divergent views of its purposes and extent. Employees see reward as fundamental to their standard of living: inflation, comparisons with others and rising expectations put upward pressure on their notion of what its proper level should be. Employers, on the other hand, seek both to control their employment costs and to use the reward system to influence such matters as productivity, recruitment, retention and change.

Context example: Tesco – Remuneration strategy

As we saw in an example in the chapter "Strategic analysis", Tesco's Annual Report highlights the principal risks the company thinks it is facing. One of the risks highlighted in the 2018 Annual Report related to people: failing to attract and retain staff with the capabilities required to make the business a success, and failing to develop the company's culture, will impact on its ability to achieve its strategic goals.

The Governance section of the report then outlines the company's reward principles for its staff.

In order to build an inclusive culture, where everyone feels welcome, it is important that staff feel fairly rewarded. Tesco's reward principles identify that staff can expect:

- A total reward package (salary, bonus, share scheme, pension, benefits) that provides flexibility and choice, and is competitive in the markets in which Tesco operates and from which it recruits for talent
- To share in Tesco's success through variable pay (eg, bonuses) that is transparent, and rewards performance
- The opportunity to plan and save for the future (eg, through the pension scheme)
- To make wellbeing and lifestyle choices, having access to a range of benefits and flexibility over working hours and place of work
- To have access to career opportunities and accredited training to develop their potential

4.2 A reward management model

An effective reward system should facilitate both the **organisation's strategic goals** and also the goals of **individual employees**.

Within this, an organisation has to make three basic decisions about monetary reward:

(a) How much to pay
(b) Whether monetary rewards should be paid on an individual, group or collective basis
(c) How much emphasis to place on monetary reward as part of the total employment relationship

However, there is no single reward system that fits all organisations. Bratton proposes a model of reward management based on five elements.

(a) The **strategic perspective**

(b) Reward **objectives**

(c) Reward **options**

(d) Reward **techniques**

Professional skills focus: Concluding, recommending and communicating

One of the professional skills tested in the CA exams is the ability to apply professional experience and evidence to support reasoning. When advising on the appropriateness of reward schemes use your personal experience of organisational reward schemes as well as technical and commercial knowledge to support your recommendations.

4.2.1 The strategic perspective

A **contingency approach to reward** accepts that the organisation's strategy is a fundamental influence on its reward system and that the reward system should support the chosen strategy.

Thus, for example, cost leadership and differentiation based on service will have very different implications for reward strategy (and, indeed, for other aspects of HRM). This is because each strategy needs a reward which is appropriate for it. The closer the alignment between the reward system and the strategic context, the more effectively the organisation can implement its strategy. The following example illustrates this.

Example of strategic perspective

Bratton and Gold in their text *Human Resource Management* provide an illustration of how two different businesses with different generic strategies have completely different rewards systems.

The first business produces high-quality, custom-made machine tools for a high-tech industry. The production process is complex and workers are highly skilled and capable of performing various jobs. They all work in self-managed teams.

In contrast to the industry norm, these skilled machine operators are not paid an hourly wage, but instead receive a base salary which is increased as they learn new skills. The employees receive an excellent benefits package and profit-sharing bonuses. Not surprisingly, staff turnover is very low.

Labour costs at this company are above the industry average, but the company is successful nonetheless because its reward system is aligned to its strategy. It is following a differentiation strategy, and its reward system encourages commitment from its staff. The system also encourages higher productivity than its competitors because of the increased functional flexibility of having multi-skilled staff. The incentive of their salary increasing as they learn new skills encourages the staff to become multi-skilled. In turn, having a multi-skilled workforce reduces machine downtime and scrap rates. Because the teams are self-managed, the company does not need to employ supervisors or quality inspectors (the teams self-regulate their own quality). Because staff turnover is low, recruitment and training costs are similarly low.

Therefore, although the company's labour costs are above the industry average, these additional costs deliver benefits elsewhere and support its differentiation strategy.

Against this, Bratton and Gold contrast a production process producing frozen food. The work is low- skilled and monotonous, and requires little employee commitment. The production line is automated and managers – not workers – control the speed of the line.

The workers are paid an hourly wage marginally above the minimum wage, and there are no additional payments or benefits. Not surprisingly, labour turnover is very high.

However, again this company is successful, because its reward system is aligned to its strategy. It is following a cost leadership strategy and so low-cost production is essential. The high labour turnover is not a problem because unskilled workers are easy to recruit and training costs are low. Therefore, the company's policy of paying near-minimum wage only is appropriate to a strategy in which little commitment or loyalty is required from the employees.

It is vital that reward systems are aligned to an organisation's objectives and its critical success factors, as well as to the job in question. As the scenarios above illustrate, if the organisation has highly skilled employees who are crucial to its competitive success, then the reward system should be designed to try to retain such staff.

However, it is also important to recognise the impact that implementing a reward system can have on employees' day to day performance. Once again, the idea that "what gets measured, gets done" is relevant here. For example, if a reward system is based primarily around individual performance, then staff will focus on their own individual results and teamwork could suffer as a result.

More generally, if a reward system is not appropriate for the context in which it is used, there is a danger it could have a negative impact on an organisation's performance.

4.2.2 Reward objectives

The reward system should pursue three behavioural objectives:

(a) It should support **recruitment and retention**

(b) It should **motivate** employees to high levels of **performance**. This motivation may, in turn, develop into commitment and a sense of belonging, but these do not result directly from the reward system.

(c) It should promote **compliance** with workplace rules and expectations

Recruitment and retention

The reward system should support **recruitment and retention**. Several influences are important here. Employees will certainly assess their pay and material benefits against what they believe to be the prevailing market rate. They will also take account of disadvantageous factors, such as unpleasant working conditions, in their assessment of the degree of equity their reward achieves for them.

Finally, they will be very sensitive to comparisons with the rewards achieved by other employees of the same organisation. Failure to provide a significant degree of satisfaction of these concerns will lead to enhanced recruitment costs.

Motivation

The reward system should **motivate employees** to high levels of performance.

Despite the apparently tenuous link between performance and level of pay (for example, with Herzberg arguing that pay is a hygiene factor rather than a motivating factor), traditional pay systems have featured incentives intended to improve performance; there has also been a tendency for UK and North American companies to adopt systems of individual performance-related pay intended to support overall organisational objectives rather than simply to incentivise individual productivity.

Compliance

The reward system should **promote compliance** with workplace rules and expectations. The psychological contract is complex and has many features, including material rewards. The incentives included in the reward system play an important role in **signalling to employees the behaviour that the organisation values**. It is also an important contributor to the way employees perceive the organisation and their relationship with it.

Context example: Barclays Bank – bonuses for reward or retention?

Consider the following case, and whether you think the bonus payments are justified.

In 2013, despite a fall in annual pre-tax profits of 37% in Barclays' investment bank, and return on equity falling from 12.7% to 8.2%, bonuses increased by 13%. Barclays' investment bankers enjoyed bonuses of £1.6 billion compared to £1.4 billion in 2012. Total bonus pay across the Barclays group as a whole increased from £2.2 billion in 2012 to £2.4 billion in 2013.

Announcing these figures, Barclays' chief executive said: "At Barclays, we believe in paying for performance and paying competitively".

Barclays is trying to compete directly, on a worldwide basis, with JPMorgan and Goldman Sachs to recruit and retain the investment bankers it values most highly. As the company's chief executive pointed out: "We compete in global markets for talent. If we are to act in the best interests of our shareholders, we have to make sure we have the best people in our firm".

The chief executive insisted that the bonuses needed to be paid, because Barclays has no control over market-led pay. In other words, if Barclays pays less than rival banks, it will not be able to retain its staff.

As such, Barclays' chief executive argued that the increase in the incentive pool was required in order to build the business in the long-term interests of shareholders. This suggests that it is more important to retain talented employees to support the business's future growth than to tie annual rewards to annual performance.

But is this really how performance-related pay should work? Critics argued that, instead of rewarding past performance, Barclays bonuses are more akin to a reward for performance that the bank hopes will occur in the future – provided that JPMorgan (and others) do not increase their bonuses even higher, and in the hope that trading bonds becomes interesting again.

Similarly, critics have argued that these bonuses are not consistent with the general principle that bonuses are meant to reflect financial performance – that is, bonus awards increase as financial performance increases, and go down if financial performance worsens.

Moreover, after the results were announced, Barclays faced a revolt among its institutional investors, and 34% of its shareholders voted against the remuneration report at the Group's annual meeting in June 2014.

In its 2012 annual report, Barclays had pledged to take 'a different approach to the balance between directors' and employees' remuneration, and returns for shareholders'.

However, the corporate governance director at the Institute of Directors was very critical of the impact of this new balance. In the light of the bank proposing to pay £2.4 billion in bonuses, compared with £860 million in dividends to shareholders, he questioned who Barclays was being run for – its staff or its owners?

Based on: Pratley, N. (2014), 'Barclays' bonuses: back to the bad old days', *The Guardian*, 11 February 2014

Treanor, J. (2014), 'Barclays condemned over £2.4bn bonuses', *The Guardian*, 11 February 2014)

4.2.3 Methods of reward

Material reward may be divided into three categories:

(a) **Base pay** is a simply established reward for the time spent working.

(b) **Performance-related pay** is normally added to base pay and is intended to reward performance, learning or experience.

(c) **Indirect pay** is made up of benefits such as health insurance and child care, and is provided in addition to base pay or performance pay.

Note: Reward schemes and their implications were discussed in Section 4 of the chapter "Strategic performance management".

Share options

One further type of reward option we should consider is share options (or employee share option plans).

Share options give directors – and possibly other managers and staff – the right to purchase shares at a specified exercise price after a specified time period in the future.

The options will normally have an exercise price that is equal to, or slightly higher than, the market price on the date that the options are granted. The time period (vesting period) that must pass before the options can be exercised is generally a few years. If the director or employee leaves during that period, the options will lapse.

In this respect, share options can be seen as a way of rewarding directors and employees for remaining with a company. In turn, this could mean that they are concerned with the longer-term success of the company, rather than simply focusing on short-term performance.

Share options will generally be exercisable on a specific date at the end of the vesting period. In the UK, the Corporate Governance Code states that shares granted, or other forms of remuneration, should not vest or be exercisable in less than three years. Directors should be encouraged to hold their shares for a further period after vesting or exercise. If directors or employees are granted a number of options in one package, these options should not all be able to be first exercised at the same date.

If the price of the shares rises so that it exceeds the exercise price by the time the options can be exercised, the directors will be able to purchase shares at lower than their market value, which is clearly advantageous for the directors exercising the options. Share options can therefore be used to **align management and shareholder interests**, because the directors have an interest in ensuring that the share price increases over time such that it is higher than the exercise price when the options come to be exercised. This is particularly relevant for options held for a long time when value is dependent on long-term performance.

However, the main danger with share options is that they could give directors an incentive to manipulate the share price if a large number of options are due to be exercised.

Alternatively, granting options could be used as a way of encouraging cautious (or risk-averse) directors to take positive action to increase the value of the company.

Again, this could help align the interests of directors and shareholders, if the directors would not otherwise be prepared to accept the same risks which the shareholders would tolerate by themselves.

The upside risk of share options is unlimited because there is no restriction on how much the share price can exceed the exercise price. However, there is no corresponding downside risk for the directors. If the share price is less than the exercise price, the intrinsic value of options will be zero and the options will lapse. In these circumstances it will make no difference how far the share price is below the exercise price.

If directors hold options, the value of their options will rise if a strategic investment succeeds and they will not suffer any loss on their options if the investment fails. Therefore, granting the options might encourage the directors to take actions they would not otherwise be prepared to take.

Risk, reward and performance

Although we have noted that share options could encourage cautious directors to be less cautious, it is equally important that reward structures do not encourage directors and managers to take excessive risks.

Since the collapse of Northern Rock bank in 2007, and throughout the ensuing financial crisis, there has been much political and media interest in the issue of reward management. This has focused on the role which reward structures were perceived to have played in encouraging excessive risk taking in the financial services sector and, in turn, what role this risk taking played in the problems which have affected the sector.

Additionally, there has been increasing concern about the extent to which the level of remuneration given to senior executives reflects (or does not reflect) the value their companies generate for their shareholders.

In the UK, in a speech to the High Pay Commission and the Institute for Public Policy Research (January 2012), the MP Chuka Umunna highlighted the extent to which the value of incentive packages for executives has risen disproportionately to improvements in company performance. In the first decade of the 21st century, FTSE 350 firms increased their pre-tax profits by 50% and their earnings per share by 73%, while year-end share prices fell by 5%. Over the same period, bonuses for executives in these companies rose by 187% and long-term incentive plans by 254%.

And, as Mr Umunna pointed out, in the worst cases "you end up with perverse incentive structures which encourage the wrong kind of decision-making, as the failures in many financial institutions in the wake of the 2008/9 financial crises so clearly illustrated".

Another issue which causes increasing anger and frustration among shareholders is the level of bonuses being awarded by companies that were rescued by taxpayer funds.

This is perhaps symptomatic of a potentially wider issue: the extent to which companies are perceived to be **rewarding failure**. The senior executives of failed companies often walk away with significant payouts, while large numbers of other managers and staff lose their jobs and their incomes.

Critics have argued that if companies are serious about improving performance, then they need to stop rewarding failure.

Context example: Rewards for failure – Tesco

Following pay outs of more than £2 million to two former directors of Tesco in February 2015, City investors are looking at ways to reduce contractual payments to departing company bosses.

Philip Clarke and Laurie McIlwee, formerly chief executive and finance director of Tesco respectively, received the payments despite the £263 million accounting scandal which was uncovered by Mr Clarke's successor in September 2014.

Tesco had previously sought to withhold the payments – £1.2 million to Mr Clarke and £970,800 to Mr McIlwee – but in February 2015 it announced it would have to pay them, after being told it had no legal grounds to continue withholding them. Tesco said it was contractually obliged to make the payments to the former directors unless it could "legally establish a case of gross misconduct" against them.

Following Tesco's announcement, investors have argued it is time to review the length of directors' contracts. Old Mutual – a leading investment group – has called for directors' contracts to be 'substantially shorter' than the current norm of 12 months. The head of UK stewardship and governance at Old Mutual Global Investors said that 12-month contracts, and the requirement to give departing directors a year's pay, were 'an anachronism' in today's business environment.

Source: Treanor, J. (2015) 'City bosses' 12-month contract rule should be reviewed, say investors', *The Guardian*, 17 February 2015.

4.2.4 Reward techniques

Reward systems must attempt to achieve **internal equity**. This means when employees make comparisons between their own rewards and those of others, they see the overall structure as fair. If internal equity is not achieved, employees will conclude that the psychological contract has been breached and their behaviour will be affected. They may become less cooperative or they may leave.

Three techniques contribute to the establishment of internal equity.

Job analysis

Job analysis is the "systematic process of collecting and evaluating information about the tasks, responsibilities and the context of a specific job" (Bratton). The data collected during job analysis identifies the major tasks performed by the job holder, the outcomes that are expected, and how the job links to other jobs in the organisation. This data is used to prepare job descriptions, job specifications and job performance standards. (Note that in practice the terms job description and job specification may be used loosely and a **job specification** is often referred to as a **person specification**.)

This information is useful in itself for a range of HRM purposes, including recruitment and training needs analysis, and it also forms the basis for **job evaluation**.

Note also that job analysis is an important aspect of quality and process redesign initiatives and is almost certainly required when e-business methods are adopted.

Job evaluation

Job evaluation is a systematic process designed to determine the relative worth of jobs within a single work organisation. The process depends on a series of subjective judgements and may be influenced by organisational politics and personal preconceptions. In particular, it can be difficult to separate the nature of the job from the qualities of the current incumbent.

Evaluation may be carried out in four ways.

(a) **Ranking** simply requires the arrangement of existing jobs into a hierarchy of relative value to the organisation.

(b) **Job grading** starts with the definition of a suitable structure of grades in a hierarchy. Definitions are based on requirements for skill, knowledge and experience. Each job in the organisation is then allocated to an appropriate grade.

(c) **Factor comparison** requires the allocation of monetary value to the various factors making up the content of a suitable range of benchmark jobs. This method is complex and cumbersome.

(d) **Points rating** is similar to factor comparison, but uses points rather than monetary units to assess the elements of job content.

Whichever method is used, the end point of a job evaluation exercise is the production of a **hierarchy of jobs** in terms of their relative value to the organisation. The **pay structure** is then set by reference to this hierarchy of jobs.

Performance appraisal

Performance appraisal has already been discussed in section 3 earlier in this chapter.

4.2.5 Reward competitiveness

The level of rewards an organisation offers will inevitably be subject to factors external to the organisation:

(a) The **labour market** as it exists locally, nationally and perhaps globally, as relevant to the organisation's circumstances

(b) The pressure for **cost efficiency** in the relevant industry or sector

(c) **Legislation** such as the level of any applicable minimum wage

4.3 Setting reward levels in practice

Many companies use commercially available **survey data** to guide the overall level of the rewards they offer. This approach can be combined with the reward techniques outlined above.

An element of flexibility must be incorporated to reflect both the different levels of skill, knowledge and experience deployed by people doing the same work and their effectiveness in doing it.

Governments influence pay levels by means other than outright legislative prescription:

(a) They affect the demand for labour by being major employers in their own right.

(b) They can affect the supply of labour by, for example, setting down minimum age or qualification requirements for certain jobs.

(c) Their fiscal and monetary policies can lead them to exert downward pressure on public sector wage rates.

4.3.1 Problems with reward systems

Reward systems are subject to a range of pressures that influence their working and affect the psychological contract.

(a) Where **trade unions** are relatively weak, as in the UK, employers have more freedom to introduce performance-related pay.

(b) **Economic conditions** may prevent employers from funding the rewards they might wish to provide in order to improve commitment. The result would be disappointment and dissatisfaction.

(c) Performance pay systems are prone to **subjective and inconsistent** judgement about merit; this will discredit them in the eyes of the employees.

Context example: Failure of reward systems

Why reward systems fail to deliver IT transformation

(This example is based on a short article on the technology website www.zdnet.com which illustrates some failings in reward systems in relation to IT projects.)

An organisation had a plan for an enterprise-wide service-orientated approach which was well thought through and should have worked well. But when the project was implemented it turned out to be a failure. One of the reasons for the failure was the way IT professionals and managers were rewarded, highlighting the importance of rewarding the right behaviour in any IT-driven transformational project.

The article highlights four common misconceptions in reward systems:

- **Rewarding programmers for lines of code produced, or based on programme complexity**. This type of reward system will encourage programmers to develop more complex or difficult programmes without considering what the organisation needs. It may not need – or want – complex or difficult programmes.
- **Rewarding developers based on long hours worked**. There is a danger with this kind of measure that **quantity** gets rewarded rather than **quality**. A programmer may end up working very long days simply because they did a poor job of estimation and planning up front, or the long hours could be an indication that there is a lot of code rewriting going on, to correct mistakes which the programmer had made initially.
- **Rewards based on salary surveys**. Basing IT salaries on industry averages means that some of the competitor companies in the market are paying more (although some are also paying less). However, if you simply pay an average rate, as soon as the economy becomes more buoyant and demand for workers heats up, programmers will defect and move to higher-paying rival companies.
- **Rewarding people based on the number of problem statements they close**. This is problematic because some people will solve multiple problems with one problem statement, while others will open and solve as many problem statements as they can to inflate the number of problems solved.

(Based on: McKendrick, J. (2010) 'Why reward systems fail to deliver IT transformation', www.zdnet.com)

4.4 Benefits and adverse consequences of linking reward schemes to performance measurement

4.4.1 Benefits for the organisation

It is clear how objectives set at higher levels can be translated into individual goals, thereby linking strategy to outcomes for the individual. This is illustrated in Bratton's model where the strategic perspective explains that the reward system should support strategy, and the two should be closely aligned.

A reward scheme should also provide an incentive to achieve a good level of performance, and the existence of a reward scheme can help to attract and retain employees who make favourable contributions to the running of the organisation.

A reward scheme can also help emphasise the key performance indicators of the business, if these are incorporated into the performance measures which underpin the scheme. This will help reinforce to employees the key aspects of their performance which contribute most to the organisation's success.

4.4.2 Drawbacks for the organisation

However, the financial crisis of 2007–08 showed the dangers of linking reward schemes to performance measures if those **performance measures are poorly designed**. We highlighted this in the case study about bankers' bonuses earlier in the chapter, suggesting that the bonus culture encouraged a focus on short-term decision-making and risk taking.

A European Commission report into the financial crisis suggested that

> "Excessive risk taking in the financial services industry… has contributed to the failure of financial undertakings… Whilst not the main cause of the financial crises that unfolded… there is widespread consensus that inappropriate remuneration practices… also induced excessive risk taking". (European Commission, Commission recommendation on remuneration policies in the financial sector)

In this case, there appears to be a direct link between the profit measures (short-term profitability) and the **risk appetite of employees**. Employees were prepared to take greater risks in the hope of making higher profits and therefore getting larger bonuses.

However, a second potential drawback for an organisation arises if it is unable to reward individuals for good performance (for instance, due to a shortage of funds) because then the link between reward and motivation may break down.

4.4.3 Benefits and drawbacks for the individual

If an individual's goals are linked to the objectives of the organisation, then it is clear to the individual how their performance is measured and why their goals are set as they are. However, on occasion there may be a problem in linking individual rewards directly to organisational outcomes, especially if the outcomes are uncertain.

Another drawback is that in striving to meet targets some individuals may become cautious and reluctant to take risks given they have a stake in the outcome. Conversely, other individuals may choose riskier behaviour especially if reward is linked to, say, revenue generation or levels of output.

4.4.4 Risk and reward

Overall, a reward system needs to achieve a balance between risk and reward:

Recruitment and retention: Rewards need to be structured in such a way that they attract and retain key talent. If an organisation's reward system is not deemed to be attractive, then there is a risk it will not be able to attract or retain the staff it needs to be successful.

Alignment with business strategy and culture: If reward strategy is not aligned to organisational goals then there is a risk the organisation will not achieve those goals. Equally, the reward system needs to encourage styles of behaviour that fit with the organisation's culture.

Reputation/brand: If the organisation's reward systems generate negative press coverage (as has been the case with some banks in the recent financial crisis) there is a risk this will adversely affect the organisation's reputation or brand.

Interactive question 4: Reward packages

The Superior Business Consultancy (SBC), based in Jayland, provides clients with a range of business consultancy services as well as IT services and support.

Currently, SBC pays all its consultants a fixed salary. However, some of the IT consultants are unhappy that their salaries are lower than those earned by the other types of consultant. Recently, four of SBC's longest-serving IT consultants resigned to go and work for rival consultancies. All of them said that the reward packages available had played a significant part in their decisions.

The directors are worried about the prospect of more consultants leaving SBC and joining rival consultancies. As a result, the directors are reviewing SBC's reward packages. The directors are aware that all the major software providers in Jayland pay a commission to consultancy firms if the firm recommends their software to a client. Currently, this commission is payable to SBC as a whole, but the directors are considering whether it should be paid to individual consultants. They are also considering a proposal under which the IT consultants would receive a lower basic salary, but would then be entitled to receive any commissions earned from the software providers.

Requirement

Evaluate the directors' proposal to revise the way SBC's IT consultants are paid.

See **Answer** at the end of this chapter.

4.5 Remuneration and corporate reporting

Professional skills focus: Applying judgement

When recommending remuneration policies, you should consider their impact on the financial statements of the business as well as on employees and the overall business strategy. Use your judgement to identify and recommend the most appropriate remuneration policy in light of the specific business objectives and challenges presented in the question scenario.

In addition to considering the impact of proposed remuneration policies on employees and their organisations, and how shareholders and other stakeholders might react to any proposed benefit packages, we need to consider how employee benefits will be accounted for in an organisation's financial statements.

Two accounting standards are relevant here: IAS 19, *Employee Benefits*, and IFRS 2, *Share-based Payment*.

We have already looked at these two standards in the chapter "Strategic performance management", where we noted the concern which British Airways' large pension deficit caused in relation to the merger between British Airways and Iberia.

Crucially, British Airways' main pension plan was a defined benefit plan. As section 4.5.1 below explains, the corporate reporting consequences of operating a defined benefit plan are significantly different from operating a defined contribution plan.

Therefore, when deciding what type of pension plan to offer employees (as part of their reward package) it will also be important for an organisation to consider the corporate reporting implications of that decision.

Many UK defined-benefit schemes are heavily in deficit, with these deficits being driven by a fall in equities and bond yields (which have reduced the value of plan assets). At the same time, falling mortality rates and increasing life expectancy are also a problem – if people are living longer, the defined benefit obligations (and hence the deficit) also increase.

More generally, a pension fund deficit can also be an important issue in corporate valuation – particularly in relation to a potential acquisition. The need to address the funding gap in any such schemes will be likely to reduce the amount a potential purchaser is prepared to pay to acquire a company.

Alternatively, as we saw in the chapter "Strategic performance management" in the example of Pearson's sale of the FT to Nikkei, a potential purchaser (Nikkei) who is prepared to contribute to the funding gap may persuade a company (Pearson) to sell an asset (FT) they had previously been reluctant to sell.

4.5.1 IAS 19, *Employee Benefits*

The objective of this standard is to prescribe the accounting and disclosure for employee benefits, where employee benefits are all forms of consideration, for example cash bonuses, retirement benefits and private healthcare, given to an employee by an entity in exchange for the employee's services.

The standard requires an entity to recognise:

(a) A liability when an employee has provided service in exchange for employee benefits to be paid in the future

(b) An expense when the entity consumes the economic benefit arising from service provided by an employee in exchange for employee benefits

However, accounting issues could arise due to:

(a) The valuation problems linked to some forms of employee benefits

(b) The timing of benefits, which may not always be provided in the same period as the one in which the employee's services are provided

Two elements of IAS 19 are particularly relevant to remuneration structures:

(a) **Short-term employee benefits** (falling due within 12 months from the end of the period in which the employees provide their services) such as wages, salaries, bonuses and paid holidays, non- monetary benefits such as private medical care and company cars.

These benefits should normally be treated as an expense, with a liability being recognised for any unpaid balance at the year end.

(b) **Post-employment benefits** such as pensions and post-retirement health cover.

Pension plans can either be **defined contribution** or **defined benefit** plans. The accounting for defined benefit plans is much more complex than for defined contribution plans.

Defined contribution plan

Contributions by an employer into a defined contribution plan are made in return for services provided by an employee during the period. The employer has no further obligation for the value of the assets of the plan or the benefits payable.

(a) The entity should recognise contributions payable as an expense in the period in which the employee provides services (except to the extent that labour costs may be included within the cost of assets).

(b) A liability should be recognised where contributions arise in relation to an employee's service, but remain unpaid at the period end.

4.5.2 Defined benefit plans

These are defined by IAS 19 as all plans other than defined contribution plans. Characteristics of a defined benefit plan are as follows:

- The amount of pension paid to retirees is defined by reference to factors such as length of service and salary levels (ie, it is guaranteed).
- Contributions into the plan are therefore variable depending on how the plan is performing in relation to the expected future obligation (ie, if there is a shortfall, contributions will increase and vice versa).

Contribution levels

The actuary advises the company on contributions necessary to produce the defined benefits ('the funding plan'). It cannot be certain in advance that contributions plus returns on investments will equal benefits to be paid.

Formal actuarial valuations will be performed periodically (eg, every three years) to reveal any surplus or deficit on the scheme at a given date. Contributions may be varied as a result; for example, the actuary may recommend a contribution holiday (a period during which no contributions are made) to eliminate a surplus.

Risk associated with defined benefit plans

As the employer is obliged to make up any shortfall in the plan, it is effectively underwriting the **investment** and **actuarial risk** associated with the plan. Thus in a defined benefit plan, the employer carries both the investment and the actuarial risk.

Definitions

Investment risk: This is the risk that, due to poor investment performance, there will be insufficient funds in the plan to meet the expected benefits.

Actuarial risk: This is the risk that the actuarial assumptions such as those on employee turnover, life expectancy or future salaries vary significantly from what actually happens.

4.6 Accounting for defined benefit plans

As we noted in the previous section, contributions to defined benefit plans will vary depending on whether the actuary assesses the value of the plan to be adequate to meet future obligations.

In some instances there will be a shortfall, in which case the actuary will advise increased contributions. In other instances there may be a surplus, in which case the actuary may recommend a contributions holiday. Contributions will therefore vary substantially from year to year.

For this reason, it is inappropriate to apply the accounting treatment for defined contribution plans and expense contributions through profit or loss.

IAS 19 instead requires that the defined benefit plan is recognised in the sponsoring entity's statement of financial position as either a liability or asset depending on whether the plan is in deficit or surplus.

The value of the pension plan is calculated in its simplest form as:	£
Present value of the defined benefit obligation at the reporting date	X
Fair value of plan assets at the reporting date	(X)
Plan deficit/surplus	X/(X)

4.6.1 Present value of the defined benefit obligation

Definition

Defined benefit obligation: The defined benefit obligation is the present value of all expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

Expected future payments

Expected future payments are based on a number of assumptions and estimates, such as:

- the final benefits payable under the plan (often dependent on future salaries, as benefits are often quoted as a percentage of the employee's final salary); and
- the number of members who will draw benefits (this will in turn depend on employee turnover and mortality rates).

Discounting to present value

Once determined, the expected future benefits should be discounted to present value (including those which may become payable within 12 months) using a discount rate determined by reference to:

- market yields on high-quality fixed-rate corporate bonds at the reporting date, or where there is no market in such bonds:
- market yields on government bonds

The corporate or government bonds should be denominated in the same currency as the defined benefit obligation, and be for a similar term.

Note: The examples of discount rates used later in this section are merely to illustrate relevant calculations and may therefore be rather higher than would currently be found in practice.

4.6.2 Fair value of plan assets

Definition

Plan assets: Plan assets are defined as those assets held by a long-term benefit fund and those insurance policies which are held by an entity, where the fund/entity is legally separate from the employer and assets/policies can only be used to fund employee benefits.

Investments owned by the employer which have been earmarked for employee benefits but which the employer could use for different purposes are not plan assets.

Definition

Fair value: Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. (IFRS 13)

Guidance on fair value is given in IFRS 13, *Fair Value Measurement*. Under IFRS 13, fair value is a market-based measurement, not an entity-specific measurement. It focuses on assets and liabilities and on exit (selling) prices. It also takes into account market conditions at the measurement date.

4.6.3 Actuarial assumptions

Actuarial assumptions are needed **to estimate the size of the future (post-employment) benefits** that will be payable under a defined benefit plan. The main categories of actuarial assumptions are as follows.

(a) **Demographic assumptions** are about mortality rates before and after retirement, the rate of employee turnover, early retirement, claim rates under medical plans for former employees, and so on.

(b) **Financial assumptions** include future salary levels (allowing for seniority and promotion as well as inflation) and the future rate of increase in medical costs (not just inflationary cost rises, but also cost rises specific to medical treatments and to medical treatments required given the expectations of longer average life expectancy).

The standard requires actuarial assumptions to be neither too cautious nor too imprudent: they should be **'unbiased'**. They should also be based on **'market expectations'** at the year end, over the period during which the obligations will be settled.

4.6.4 Accounting for the movement in defined benefit plans

Both the present value of the defined benefit obligation and the fair value of plan assets, and therefore the overall plan surplus or deficit, will change from year to year. This movement is broken down into its constituent parts and each is accounted for separately.

The opening and closing obligation and plan assets can be reconciled as follows:

	PV of defined benefit obligation	FV of plan assets
	£	£
B/f at start of year (advised by actuary)	(X)	X
Retirement benefits paid out	X	(X)
Contributions paid into plan		X
Interest on plan assets		X
Interest cost on obligation	(X)	
Current service cost	(X)	
Gains/losses on remeasurement (balancing figure)	X/(X)	X/(X)
C/f at end of year (advised by actuary)	(X)	X

Note that while the interest on plan assets and interest on obligation are calculated separately, they are presented net and the same rate is used for both.

4.6.5 Outline of the method

There is a **four-step method** for recognising and measuring the expenses and liability of a defined benefit pension plan.

An outline of the method used by an employer to account for the expenses and obligation of a defined benefit plan is given below.

Step 1 Measure the deficit or surplus:

(a) An **actuarial technique** (the **projected unit credit method**) should be used to make a reliable estimate of the amount of future benefits employees have earned from service in relation to the current and prior years. The entity must determine how much benefit should be attributed to service performed by employees in the current period, and in prior periods. Assumptions include, for example, levels of employee turnover, mortality rates and future increases in salaries (if these will affect the eventual size of future benefits such as pension payments).

(b) The benefit should be **discounted** to arrive at the present value of the defined benefit obligation and the current service cost.

(c) The **fair value** of any **plan assets** should be deducted from the present value of the defined benefit obligation.

Step 2 The surplus or deficit measured in Step 1 may have to be adjusted if a net benefit asset has to be restricted by the asset ceiling. (The asset ceiling is a threshold established by IAS 19 to ensure that any defined benefit asset (ie, a pension surplus) carried at no more than its recoverable amount. In simple terms, this means that any net asset is restricted to the amount of cash savings that will be available to the entity in future.)

Step 3 Determine the amounts to be recognised in profit or loss:

(a) Current service cost

(b) Any past service cost and gain or loss on settlement

(c) Net interest on the net defined benefit liability (asset)

Step 4 Determine the remeasurements of the net defined benefit liability (asset), to be recognised in other comprehensive income (items that will not be reclassified to profit or loss).

(a) Actuarial gains and losses

(b) Return on plan assets (excluding amounts included in net interest on the net defined benefit liability (asset))

(c) Any change in the effect of the asset ceiling (excluding amounts included in net interest on the net defined benefit liability (asset))

4.6.6 Retirement benefits paid out

During an accounting year, some of the plan assets will be paid out to retirees, thus discharging part of the benefit obligation. This is accounted for by:

DEBIT	PV of defined benefit obligation	X	
CREDIT	FV of plan assets		X

Note that there is no cash entry, as the pension plan itself rather than the sponsoring employer pays the money out.

4.6.7 Contributions paid into plan

Contributions will be made into the plan as advised by the actuary. This is accounted for by:

DEBIT	FV of plan assets	X	
CREDIT	Cash		X

4.6.8 Return on plan assets

Definition

Return on plan assets: Is defined as interest, dividends and other revenue derived from plan assets together with realised and unrealised gains or losses on the plan assets, less any costs of administering the plan and less any tax payable by the plan itself.

Accounting for the return on plan assets is explained in more detail below.

4.6.9 The statement of financial position

In the statement of financial position, the amount recognised as a **defined benefit liability** (which may be a negative amount, ie, an asset) should be the following.

(a) the **present value of the defined obligation** at the year end; **minus**

(b) the **fair value of the assets of the plan** as at the year end (if there are any) out of which the future obligations to current and past employees will be directly settled.

The earlier parts of this section have looked at the recognition and measurement of the defined benefit obligation. Now we will look at issues relating to the assets held in the plan.

4.6.10 Plan assets

Plan assets are:

(a) Assets such as stocks and shares, held by a fund that is legally separate from the reporting entity, which exists solely to pay employee benefits

(b) Insurance policies, issued by an insurer that is not a related party, the proceeds of which can only be used to pay employee benefits

Investments which may be used for purposes other than to pay employee benefits are not plan assets.

The standard requires that the plan assets are measured at fair value, as "the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date". This is consistent with IFRS 13, *Fair Value Measurement*.

IAS 19 includes the following **specific requirements**:

(a) The plan assets should exclude any contributions due from the employer but not yet paid.

(b) Plan assets are reduced by any liabilities of the fund that do not relate to employee benefits, such as trade and other payables.

4.6.11 The statement of profit or loss and other comprehensive income

All the gains and losses that affect the plan obligation and plan assets must be recognised. The **components of defined benefit cost must be recognised as follows** in the statement of profit or loss and other comprehensive income:

Component	Recognised in
(a) **Service cost**	Profit or loss
(b) **Net interest on the net defined benefit liability**	Profit or loss
(c) **Remeasurements of the net defined benefit liability**	Other comprehensive income (not reclassified to profit or loss)

4.6.12 Service costs

These comprise:

(a) **Current service cost**; this is the increase in the present value of the defined benefit obligation resulting from employee services during the period.

(b) **Past service cost**; this is the change in the obligation relating to service in **prior periods**. This results from amendments or curtailments to the pension plan.

(c) Any **gain or loss on settlement**.

Changes in the terms of membership of a defined benefit plan may give rise to a plan amendment, curtailment or settlement. If this occurs, the current service cost and the net interest for the period after the remeasurement must be determined using the assumptions used for the remeasurement, rather than the assumptions determined at the beginning of the period.

4.6.13 Net interest on the net defined benefit liability (asset)

In section 4.6.5 we looked at the recognition and measurement of the defined benefit obligation. This figure is the discounted **present value** of the future benefits payable. Every year the discount must be 'unwound', increasing the present value of the obligation as time passes through an interest charge.

4.6.14 Interest calculation

IAS 19 requires that the interest should be calculated on the **net defined benefit liability (asset)**. This means that the amount recognised in profit or loss is the net of the interest charge on the obligation and the interest income recognised on the assets.

The calculation is as follows:

Net defined benefit balance × Discount rate

The **net defined benefit liability/(asset)** should be measured as at the **start** of the accounting period, taking account of changes during the period as a result of contributions paid into the scheme and benefits paid out.

4.6.15 Discount rate

The **discount rate** adopted should be determined by reference to **market yields on high-quality** fixed-rate corporate bonds. In the absence of a 'deep' market in such bonds, the yields on comparable government bonds should be used as reference instead. The maturity of the corporate bonds that are used to determine a discount rate should have a term to maturity that is consistent with the expected maturity of the post-employment benefit obligations, although a single weighted average discount rate is sufficient.

Worked example: Interest cost

In 20X8, an employee leaves a company after working there for 24 years. The employee chooses to leave his accrued benefits in the pension plan until he retires in seven years' time (he now works for another company).

At the time of his departure, the actuary calculates that it is necessary at that date to have a fund of £296,000 to pay the expected pensions to the ex-employee when he retires.

At the start of the year, the yield on high quality corporate debt was 8%, and remained the same throughout the year and the following year.

Requirement

Calculate the interest cost to be debited to profit or loss in Years 1 and 2.

Solution

		£
Year 1:	Discounted cost b/f	296,000
	Interest cost (profit or loss) (8% × £296,000)	23,680
	Obligation c/f (statement of financial position)	319,680
Year 2:	Interest cost (profit or loss) (8% × £319,680)	25,574
	Obligation c/f (statement of financial position)	345,254

4.6.16 Remeasurements of the net defined benefit liability

Remeasurements of the net defined benefit liability/(asset) comprise:

(a) actuarial gains and losses;

(b) the return on plan assets (excluding amounts included in net interest on the net defined benefit liability/(asset)); and

(c) any change in the effect of the asset ceiling (excluding amounts included in net interest on the net defined benefit liability/(asset)).

The gains and losses relating to points (a) and (b) above will arise in every defined benefit plan. The asset ceiling is a complication that is not relevant in every case.

4.6.17 Actuarial gains and losses

Actuarial gains and losses arise for several reasons, and IAS 19 requires these to be recognised in full in other comprehensive income.

At the end of each accounting period, a new valuation, using updated assumptions, should be carried out on the obligation. Actuarial gains or losses arise because of the following.

- **Actual events** (eg, employee turnover, salary increases) differ from the actuarial assumptions that were made to estimate the defined benefit obligations
- The effect of **changes to assumptions** concerning benefit payment options
- **Estimates are revised** (eg, different assumptions are made about future employee turnover, salary rises, mortality rates, and so on)
- The effect of changes to the **discount rate**

Actuarial gains and losses are recognised in **other comprehensive income**. They are **not reclassified to profit or loss**.

4.6.18 Return on plan assets

The return on plan assets must be calculated.

A new valuation of the plan assets is carried out at each period end, using current fair values. Any difference between the new value, and what has been recognised up to that date (normally the opening balance, interest, and any cash payments into or out of the plan) is treated as a 'remeasurement' and recognised in other comprehensive income.

Note: In the examples in this chapter, it is assumed that cash from contributions is received and pensions paid out at the end of the year, as no interest arises on it. In practice, it is more likely that contributions would be paid in part way through the year, and pensions paid out part way through the year or evenly over the year.

Worked example: Remeasurement of the net defined benefit liability

At 1 January 20X2 the fair value of the assets of a defined benefit plan was £1,100,000 and the present value of the defined benefit obligation was £1,250,000. On 31 December 20X2, the plan received contributions from the employer of £490,000 and paid out benefits of £190,000.

The current service cost for the year was £360,000 and a discount rate of 6% is to be applied to the net liability/(asset).

After these transactions, the fair value of the plan's assets at 31 December 20X2 was £1.5 million. The present value of the defined benefit obligation was £1,553,600.

Requirement

Calculate the gains or losses on remeasurement through other comprehensive income (OCI) and the return on plan assets and illustrate how this pension plan will be treated in the statement of profit or loss and other comprehensive income and statement of financial position for the year ended 31 December 20X2.

Solution

	Assets	**Obligation**
	£	**£**
Fair value/present value at 1.1.X2	1,100,000	1,250,000
Interest (1,100,000 × 6%)/(1,250,000 × 6%)	66,000	75,000
Current service cost		360,000
Contributions received	490,000	
Benefits paid	(190,000)	(190,000)
Return on plan assets excluding amounts in net interest (balancing figure) (OCI)	34,000	–
Loss on remeasurement (balancing figure) (OCI)	–	58,600
	1,500,000	1,553,600

The following accounting treatment is required.

In the **statement of profit or loss and other comprehensive income**, the following amounts will be recognised.

In **profit or loss**:	**£**
Current service cost	360,000
Net interest on net defined benefit liability (75,000 – 66,000)	9,000
In **other comprehensive income** (34,000 – 58,600)	24,600

In the **statement of** financial **position**, the net defined benefit liability of £53,600 (1,553,600 – 1,500,000) will be recognised.

Interactive question 5: Defined benefit pension plan

Penn Co operates a defined benefit pension plan for its employees conditional on a minimum employment period of six years. The present value of the future benefit obligations and the fair value of its plan assets on 1 January 20X1 were £110 million and £150 million respectively.

The pension plan received contributions of £7 million and paid pensions to former employees of £10 million during the year.

Extracts from the most recent actuary's report show the following:

Present value of pension plan obligation at 31 December 20X1	£116m
Fair value of plan assets at 31 December 20X1	£140m
Present cost of pensions earned in the period	£11m
Yield on high quality corporate bonds at 1 January 20X1	10%

On 1 January 20X1, the rules of the pension plan were changed to improve benefits for plan members. The actuary has advised that this will cost £10 million.

Requirement

Produce the extracts for the financial statements for the year ended 31 December 20X1. Assume contributions and benefits were paid on 31 December.

See **Answer** at the end of this chapter.

4.7 IFRS 2, *Share-based Payment*

We have already mentioned IFRS 2, *Share-based Payment* briefly in the chapter "Strategic performance management" in the context of performance management, recognising that share options could be used to encourage directors to focus on the longer-term performance of their companies and not just on short-term results.

However, if a company considers offering share options to its directors, it is important to weigh the potential impact these could have on its financial position.

IFRS 2 requirements

Prior to the publication of IFRS 2 there appeared to be an anomaly to the extent that if a company paid its employees in cash, an expense was recognised in profit or loss, but if the payment was in share options no expense was recognised.

IFRS 2 resolved this anomaly by requiring an expense to be recognised in profit or loss in relation to share-based payments.

However, the introduction of the IFRS and the requirement to recognise share-based payments as an expense caused huge controversy, with opposition especially strong among hi-tech companies. The arguments over expensing share-based payments polarised opinion, especially in the US.

(a) The main argument **against** recording an expense was that no cash changes hands as part of such transactions, and therefore there is no true expense.

(b) The main argument **for** recording an expense was that share-based payments are simply another form of compensation that should go into the calculation of earnings for the sake of transparency for investors and the business community.

Practical application of IFRS 2

In practice, the implementation of IFRS 2 has resulted in earnings being reduced, sometimes significantly. It is generally agreed that as a result of the IFRS companies now focus more on the earnings effect of different rewards policies.

Following the adoption of IFRS 2, some companies have admitted that they are re-evaluating the use of share options as part of employee remuneration.

Impact on earnings and financial position

In the financial statements, entities should disclose information that enables users of the financial statements to understand the effect of share-based payment transactions on the entity's **profit or loss for the period** and on its financial **position**.

(a) The **total expense recognised for the period** arising from share-based payment transactions, including separate disclosure of that portion of the total expense that arises from transactions accounted for as equity-settled share-based payment transactions

(b) For **liabilities** arising from share-based payment transactions:

  (1) The **Total carrying amount** at the end of the period

  (2) the **total intrinsic value** at the end of the period of liabilities for which the counterparty's right to cash or other assets had vested by the end of the period

(c) Although not mentioned specifically by IFRS 2 in the context of disclosures, share-based payment transactions will have an impact on equity, being the other half of the double entry:

DEBIT	Expense
CREDIT	Equity (if equity settled)

Impact of share-based payments on earnings per share (EPS)

IAS 33, *Earnings per Share* requires that for calculating diluted earnings per share (EPS) all dilutive options need to be taken into account. Employee share options with fixed terms and non-vested ordinary shares are treated as options outstanding on grant date even though they may not have vested on the date the diluted EPS is calculated. All awards which do not specify performance criteria are treated as options.

4.7.1 Share-based transactions with employees (share options)

Transactions with employees are normally:

- Measured at the **fair value** of equity instruments granted **at grant date**
- Spread over the vesting period (often a specified period of employment)

In accordance with IFRS 2, Share-based Payment (paragraphs 16 and 17), where a transaction is measured by reference to the fair value of the equity instruments granted, fair value is based on market prices where available. If market prices are not available, the entity should estimate the fair value of the equity instruments granted using a suitable valuation technique (such as the Black- Scholes model, the Binomial model or Monte Carlo simulation).

Worked example: Employee transactions – equity-settled

A company provides each of 10 key employees with 1,000 share options on 1 January 20X7. Each option has a fair value of £9 at the grant date, £11 on 1 January 20X8, £14 on 1 January 20X9 and £12 on 31 December 20X9.

The options do not vest until 31 December 20X9 and are dependent on continued employment. All 10 employees are expected to remain with the company.

Requirement

What are the accounting entries to be recorded in each of the years 20X7, 20X8 and 20X9?

Solution

The changes in the value of equity instruments after grant date do not affect the charge to profit or loss for equity-settled transactions.

Based on the fair value at grant date, the remuneration expense is calculated as follows.

Number of employees × number of equity instruments × fair value of equity instruments at grant date = 10 × 1,000 × £9 = £90,000

The remuneration expense should be recognised over the vesting period of three years. An amount of £30,000 should be recognised for each of the three years 20X7, 20X8 and 20X9 in profit or loss with a corresponding credit to equity.

It is important to remember that the expense recognised in each year of the vesting period should be based on the best available estimate of the number of equity instruments expected to vest.

Therefore if any employees are expected to leave within the vesting period, this should be taken into account when calculating the expense.

Worked example: Employees leave

Dexter Co issues 10,000 options to each of the 50 directors and senior managers on 1 July 20X1.

The exercise price of the options is £4.50 per share. The scheme participants have to stay with the company for four more years before being able to exercise their options.

At 31 December 20X1, it is estimated that 75% of the current directors and senior managers will remain with the company for four years or more. The estimated figure is 70% at 31 December 20X2.

The fair value of an option is £3 at the grant date.

Requirement

Identify the journal entries required to record the share-based payment transaction in each of the years ended 31 December 20X1 and 20X2.

Solution

The remuneration expense in respect of the options for the year ended 31 December 20X1 is calculated as follows:

Fair value of options expected to vest at grant date:

(75% × 50 employees) × 10,000 options × £3 = £1,125,000

Annual charge to profit or loss therefore £1,125,000/4 years = £281,250

Charge to profit or loss for y/e 31 December 20X1 = £281,250 × 6/12 months = £140,625
The accounting entry for the year ending 31 December 20X1 is:

		£	£
DEBIT	Remuneration expense	140,625	
CREDIT	Equity		140,625

In 20X2 the remuneration charge is for the whole year, and is calculated as: (70% × 50 employees) ×10,000 options × £3 = £1,050,000

Charge to date is £1,050,000 × 1.5/4 years = £393,750 Therefore charge for the year is £393,750 – £140,625 = £253,125 The accounting entry is:

DEBIT	Remuneration expense	253,125	
CREDIT	Equity		253,125

4.7.2 Modifications and repricing

Equity instruments may be modified before they vest. For example, a downturn in the equity market may mean that the original option exercise price set is no longer attractive. Therefore the exercise price is reduced (the option is 'repriced') to make it valuable again.

Such modifications will often affect the fair value of the instrument and therefore the amount recognised in profit or loss.

The accounting treatment of modifications and repricing is:

(a) Continue to recognise the **original** fair value of the instrument in the normal way (even where the modification has reduced the fair value).

(b) Recognise any **increase** in fair value at the modification date (or any increase in the number of instruments granted as a result of modification) spread over the period between the modification date and vesting date.

(c) If modification occurs after the vesting date, then the additional fair value must be recognised immediately, unless there is, for example, an additional service period, in which case the difference is spread over the additional period.

4.7.3 Cancellations and settlements

An entity may settle or cancel an equity instrument during the vesting period. Where this is the case, the correct accounting treatment is:

(a) To immediately charge any remaining fair value of the instrument which has not been recognised to profit or loss (the cancellation or settlement accelerates the charge and does not avoid it).

(b) Any amount paid to the employees by the entity on settlement should be treated as a buy-back of shares and should be recognised as a deduction from equity. If the amount of any such payment is in excess of the fair value of the equity instrument granted, the excess should be recognised immediately in profit or loss.

4.7.4 Market-based and non market based vesting conditions

When share-based payments are offered to employees, there are likely to be some conditions (vesting conditions) which have to be satisfied before the employee is entitled to receive the share- based payment.

IFRS 2 distinguishes between two different types of vesting conditions:

Market-based vesting conditions

Market-based performance or vesting conditions are conditions linked to the market price of the shares in some way. Examples include vesting dependent on achieving:

- a minimum increase in the share price of the entity
- a minimum increase in shareholder return
- a specified target share price relative to an index of market prices

Non market based vesting conditions

These are conditions other than those relating to the market value of the entity's shares. Examples include vesting dependent on:

- the employee completing a minimum period of service (eg, remaining with the company for a further three years) – also referred to as a service condition
- achievement of minimum sales or earnings target
- achievement of a specific increase in profit or earnings per share
- successful completion of a flotation
- completion of a particular project

The distinction between the two different types of vesting conditions has important implications for the accounting treatment of the shares:

Market-based vesting conditions

- These conditions are taken into account when calculating the fair value of the equity instruments at the grant date.
- They are not taken into account when estimating the number of shares or share options likely to vest at each period end.
- If the shares or share options do not vest, any amount recognised in the financial statements will remain.

Non market based vesting conditions

- These conditions are taken into account when determining the expense which must be taken to profit or loss in each year of the vesting period. (They are not taken into account when calculating the fair value of the equity instruments at the grant date.)
- Only the number of shares or share options expected to vest will be accounted for.
- At each period end (including interim periods), the number expected to vest should be revised as necessary. The movement in cumulative expense is charged to profit or loss.
- On the vesting date, the entity should revise the estimate to equal the number of shares or share options that do actually vest.

Vested options not exercised

If after the vesting date options are not exercised or the equity instrument is forfeited, there will be no impact on the financial statements. This is because the holder of the equity instrument has effectively made that decision as an investor.

The services for which the equity instrument remunerated were received by the entity and the financial statements reflect the substance of this transaction. IFRS 2 does, however, permit a transfer to be made between reserves in such circumstances to avoid an amount remaining in a separate equity reserve where no equity instrument will be issued.

4.8 Executive remuneration and remuneration reports

In chapters "Strategic implementation" and "Strategic performance management" of this Workbook we mentioned the principal-agent problem, and the importance of aligning directors' (agents') interests with those of their company's shareholders (principals).

Granting share options to directors is one way of aligning directors' interests with those of the company's shareholders. More generally, however, there has been increasing pressure on companies to be more transparent about the way directors' pay is set, and to improve accountability to shareholders

In the context of Strategic Business Management, the linkage between remuneration and performance is also particularly important.

As the Foreword to the Department of Business, Innovation & Skills (BIS) discussion paper *Executive Remuneration* (2011) noted:

> "Executive remuneration that is well-structured, clearly linked to the strategic objectives of a company, and which rewards executive directors who contribute to the long-term success of that company, is important in promoting business stability and growth. Shareholders want to see remuneration being used effectively to attract, incentivise and appropriately reward executives, so that the value of the companies they invest in increases over time."

Generous rewards can be justified when a company has delivered strong long-term performance and growth. However, as the BIS discussion paper highlights, the financial crisis in 2008–09 made shareholders, wider stakeholders (such as employees and customers) and the public at large more aware of the apparent disconnect between pay and performance. For example, one area of concern is that the remuneration of the highest paid executives in large companies seems to rise virtually every year, regardless of the performance of the company.

The link between strategy, pay and performance should therefore be an important factor for shareholders to consider when assessing remuneration proposals.

The BIS discussion paper proposed that companies should provide a clearer statement on how executive remuneration relates to a company's achievement of its strategic objectives over the previous year.

However, as well as justifying its current payments, it is equally important for a company to describe its pay policy for the year ahead, so that shareholders can gauge how effectively future pay is linked to company strategy and performance.

In the UK, the Directors' Remuneration Report Regulations (2002) already required quoted companies to produce a detailed annual directors' remuneration report, and to hold a shareholder vote on that report. However, these Regulations were substantially amended by the **Directors' Remuneration Report (DRR) Regulations (2013)** which had far-reaching implications for the information which companies have to disclose in directors' remuneration reports.

The aim of the 2013 DRR Regulations was to enable investors to be better informed about how much directors have been – and will be – paid, and how this relates to company performance.

The DRR Regulations also sought to increase transparency over directors' remuneration by requiring a company to separate its reports about Directors' Remuneration into two parts:

(a) **Policy Report** – A forward-looking report setting out the company's future policy on directors' remuneration. The policy report should cover the company's approach to setting salary, pensions, bonus and incentive awards, as well as payments for loss of office and recruitment packages for new directors.

The policy report must disclose a description of each element of pay, and how it links to the company's strategy. The report must also provide performance scenarios showing fixed pay, total remuneration when performing in line with expectations, and maximum total remuneration.

(b) **Implementation Report** – A retrospective report, setting out the actual payments made to directors in the financial year being reported on. The DRR Regulations also require a company to include, within the implementation report, a single total figure of remuneration for each director, along with tables showing that total figure broken down into its component parts (base salary; taxable benefits; bonuses; the value of share and share options awards; and any pension-related benefits).

The Regulations also increase shareholder power by allowing shareholders a **binding vote** on the Policy Report at least once every three years.

A company is then prohibited from making any remuneration payment which is not covered by an approved remuneration policy, or which is inconsistent with that policy.

The implementation report is subject to an advisory vote each year. Although this vote isn't binding, it provides an opportunity for shareholders to indicate whether they are satisfied with how the policy has been implemented.

4.8.1 Pay gaps

The increased focus on the relationship between executive pay and company performance also reflects increasing concerns about the disparity ('pay gap') between the rewards paid to senior executives and the remuneration received by the workforce at large (which we discussed in chapter "Strategic performance management").

Shareholders are becoming increasingly sensitive to the idea that it is unfair for executives to get significantly higher pay increases than everyone else. Similarly, shareholders are also starting to ask whether the package of rewards received by each director is fair and justified in the context of their contribution to the business. Both these issues should also serve as a warning that shareholders could vote against executive pay deals if they believe them to be unfair or unjustified.

However, the increased focus on performance and rewards could also pose some questions for the performance measures which are used to determine rewards, and how weightings are assigned to different measures. For example, should directors be rewarded for meeting environmental targets in a year when profits have decreased?

Another area where pay gaps have been a source of concern is in pay gaps between male and female employees. Following publication of the salaries of its top earners in the summer of 2017 the BBC was criticised for the substantial pay gap between male and female staff.

In the light of this, the BBC engaged PwC, in conjunction with the law firm, Eversheds, to conduct an equal pay audit of graded staff levels within the Corporation. This review found there was 'no evidence' of gender bias in pay decisions at the BBC, although this conclusion has been disputed by some employees within the Corporation.

5 HRM and change management

Section overview

- We discussed the importance of change management in strategy implementation in the chapter "Strategic implementation" of this Workbook. However, the link between change management and HRM is important because 'change' will also inevitably affect the people in an organisation.
- Therefore, in order for the change to be implemented successfully, the way the change is communicated to the people in an organisation and the way those people respond and adapt to the change will also have to be managed effectively.

5.1 HRM and change agents

One of the four roles for HRM highlighted in Dave Ulrich's model (see Figure 10.2) is that of the change agent.

HR departments in nearly every business have a key role in managing change effectively. Although some changes occur as clearly defined episodes in response to external environmental factors, change can also be a continuous process within organisations (as implied by the notion of the learning organisation). Learning new knowledge could itself be a catalyst for change.

Moreover, change comes in different forms and can occur at different levels within an organisation:

- Individuals
- Structures and systems
- Organisational climate

Changing individuals involves changing their skills, values, attitudes and behaviours. Any such individual changes have to support the overall organisational changes required. However, ultimately organisational changes can only be achieved if the individual people working for an organisation change as necessary.

Changing structures and systems involves changing the formal and informal organisational structures in place: for example, changing business processes, or changing roles, responsibilities and relationships.

Changing the organisational climate involves changing the way people relate to each other in an organisation; the management style; and the overall culture of the organisation. For example, this might involve creating a culture of high interpersonal trust and openness between staff.

The presence of these three levels means a change manager needs to ensure that appropriate methods exist in order that the desired change is achieved at each level.

5.1.1 HRM and organisational change

Despite the range of possible change scenarios which might arise in an organisation, HR functions can still play a central role in the change process. Key activities might include:

- The recruitment and/or development of people with the necessary leadership skills to drive change, and staff with the necessary technical and operational skills to deliver the change
- Advising project leaders about reward and job design
- Communicating the benefits and effects of change to staff, and encouraging staff involvement in the change process
- Identifying the appropriate medium of communication to reach different stakeholder groups
- Understanding staff (or other stakeholders') concerns about changes, and helping to deal with them
- Negotiating and dealing with conflict; engaging with various stakeholders; understanding stakeholder concerns in order to anticipate problems with change programmes
- Assessing the impact which changes in one business area/department/location could have on other parts of an organisation
- providing a structured framework for change, and helping people cope with change
- Constructing reward systems which underpin the change process and motivate staff to support the changes

The Chartered Institute of Personnel and Development has identified seven areas of activity ("the seven Cs of change") which increase the probability of change programmes being successful. HR practitioners have a key role to play in each of the seven:

- choosing a team
- crafting the vision and path
- connecting organisation-wide change
- consulting stakeholders
- communicating
- coping with change
- capturing learning

Alongside these specific areas of activity we could also suggest, more generally, that HR managers can play a key role as **change agents** in leading change.

The Workbook for Business Strategy and Technology identifies that the role of the change agent could include:

- defining the problem
- examining what causes the problem and considering how this can be overcome
- suggesting possible solutions
- selecting an appropriate solution
- implementing the change
- communicating information about the change throughout the organisation
- gaining support from all involved to deliver the solution

In order to be effective, a change agent should have the following skills and attributes:

(a) Communication skills – and the ability to communicate effectively with people at all levels within an organisation

(b) Networking skills to establish and maintain contacts, both within and outside an organisation

(c) Negotiation and 'selling' skills – negotiating with stakeholders in the business to obtain resources for a project, or to resolve conflict; selling the vision of change to key stakeholders to increase support for a change programme. A change agent also needs to have influencing skills, to be able to convince potential sceptics about the benefits of a change programme, and thereby to overcome their resistance to it.

(d) An awareness of organisational 'politics'

(e) Sensitivity to the impact changes will have on different stakeholders, and sensitivity in dealing with different stakeholders

(f) An understanding of the relevant processes

(g) Financial analysis skills: to assess the financial impacts of proposed changes, or to be able to look at how changes to operations and systems can deliver a desired financial goal

(h) Flexibility to be able to respond to shifts in project goals or objectives, or to adapt in response to internal or external factors which affect the change process

(i) An important point that Kanter highlights is that a change agent needs to be able to adapt to cope with the complexities of modern organisations

In particular, a change agent needs to:

(a) Be able to work across a range of business units and functions, and across a network of different stakeholders

(b) Be an effective collaborator, able to work in ways that enhance collaboration across different functions and divisions

These skills should resonate with the HRM competences of an organisation.

Importantly, though, a change agent should not be selected just because they have good general project management skills. The change agent must be **directly involved in the change process** and must see clear linkages between their future success in an organisation and the effective implementation of the change.

5.2 Models of change

Lewin's stage model of change

We have already looked at change management in the chapter "Strategic implementation" of this Workbook, but it is worth noting how the elements of 'unfreeze', 'change' and 'refreeze' contain elements of HRM. In particular, a key element of the 'refreeze' stage is the use of positive reinforcement to reward and validate successful change, which could be linked to bonus and reward schemes where the bonuses are dependent on staff members adopting new approaches or methodologies.

Kotter's eight step model of change

Another widely cited model of change is Kotter's eight 'lessons' which organisations need to address when implementing change. (We have already looked at this model in the chapter "Strategic implementation" in relation to implementing digital strategy.) Note, however, that the 'lessons' in Kotter's model highlight the importance of 'people' in successful change management, as well as highlighting the importance of having a 'felt need' for change in an organisation, and the importance of communication throughout the change process.

(a) **Establish a sense of urgency** – Discuss the current competitive position and look at potential future scenarios. Increase the 'felt need for change' (in other words, promote the driving forces for change).

(b) **Form a powerful guiding coalition** – Assemble a powerful group of people who can work well together to promote the change.

(c) **Create a vision** – Build a vision to guide the change effort, together with strategies for achieving it.

(d) **Communicate the vision** – The vision, and accompanying strategies and new behaviours, need to be communicated. Kotter stresses that effective communication is crucial in change management.

(e) **Empower others to act on the vision** – This includes getting rid of obstacles to change such as unhelpful structures and systems. People need to be allowed to experiment.

(f) **Plan for and create short-term wins** – Look for and advertise short-term visible improvements because these will help sustain the driving forces for change. Kotter suggests that these short- term wins should be planned into the change programme, and people should be publicly rewarded for making improvements.

(g) **Consolidate improvements and produce still more change** – Promote and reward those who are able to promote and work towards the vision. Maintain the energy behind the change process by introducing new projects, resources and change agents.

(h) **Institutionalise new approaches** – Ensure that everyone understands that the new behaviours and systems will lead to corporate success.

Kotter's model can also be used to analyse the reasons why change initiatives have been unsuccessful – in effect, where the eight 'lessons' have not been followed successfully:

Reason for failure	Possible antidotes
Not enough sense of urgency	**Establish a sense of urgency by:** • examining market or competitive pressures • identifying potential crises or major opportunities • ensuring levels of dissatisfaction with current position or perception of future threat are sufficient to kick-start the change and maintain momentum
Failure to create a powerful support base	**Form a powerful guiding coalition by:** • assembling a group with enough power to **lead the change effort** (without an effective change management team, any change management project is likely to fail) • encouraging the group to work together as a team • ensuring that key stakeholders are engaged
Vision not clearly developed	**Create a vision by:** • having a clear understanding of what the change needs to achieve • developing clear strategies for achieving the vision
Vision poorly communicated	**Communicate the vision by:** • using a variety of media to communicate the new vision and strategies. Within this, it will also be important to **highlight the benefits** of the changes • teaching new behaviours by the example of the guiding coalition of senior management • ensuring people have a shared understanding and commitment to the direction of the change
Obstacles block the vision	**Empower people to act on the vision by:** • senior management demonstrably tackling obstacles to change • ensuring that all the people who are needed to make the change happen have the necessary resources and authority to achieve their goals
Failing to create short- term wins	**Plan for and create short-term wins by:** • planning for visible performance improvements • identifying smaller goals along the way to the ultimate target so that success can be demonstrated; being able to demonstrate success will maintain momentum • recognising and rewarding employees involved in improvements
Systems, policies and skills not aligned	**Consolidate improvements and produce more change by:** • changing systems, structures and policies that don't fit the vision • hiring, promoting and developing employees who can implement the vision • building on improvements in the organisation as and when they occur to continue to move the change forward
Failing to anchor changes in the corporate culture (not refreezing)	**Institutionalise new behaviours by:** • explaining how the new behaviours will deliver corporate success • developing the means to ensure leadership development and succession • ensuring knowledge about the new approaches is captured and shared

(Adapted from: Cameron & Green, 'Making sense of change management' and based originally on an article by Kotter in the Harvard Business Review)One additional factor which could jeopardise the success of a change management project is a **lack of change**

management/implementation expertise and skills within an organisation's senior management team. Change does not just happen on its own; management need to define the change programme, ensure the necessary resources are allocated to it, and drive it forward.

However, for example, if the senior management team do not have any previous experience of change programmes and do not allocate sufficient resources to a change programme, this could jeopardise its success.

5.3 Maintaining internal consistency

When planning or implementing change in an organisation, it is important that the proposed changes 'fit' with the existing context of the organisation.

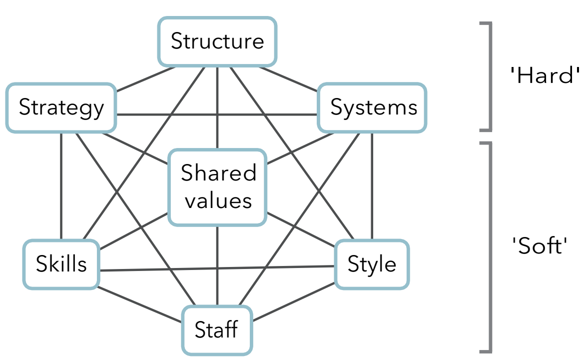
- Successful change management requires more than simply recognising a change trigger and acting on it. Instead, successful exploitation of a change situation requires:
- Knowledge of the circumstances surrounding a situation
- Understanding of the interactions in that situation awareness of the potential impact of the variables associated with the situation

McKinsey 7-S model

The McKinsey 7-S model provides a framework for looking at an organisation as a set of interconnected and interdependent subsystems. This interdependence highlights that strategies adopted in any one area of an organisation (or changes to the strategies pursued in any area of the organisation) will have an impact on other parts of the organisation.

Therefore, when considering changes in an organisation, it could be useful to think about how the proposed changes fit with the 7 S's:

Figure 10.6: McKinsey 7-S model



There are three '**hard'** elements of business behaviour:

(a) **Structure**. The organisation structure refers to the formal division of tasks in the organisation and the hierarchy of authority from the most senior to junior.

(b) **Strategy**. How the organisation plans to outperform its competitors, or how it intends to achieve its objectives. This is linked to shared values.

(c) **Systems**. These include the technical systems of accounting, personnel, management information and so forth. These are linked to the skills of the staff.

These 'hard' elements are easily quantified and defined, and deal with facts and rules.

'Soft' elements are equally important.

(a) **Style** refers to the **corporateculture** that is the shared assumptions, ways of working, attitudes and beliefs. It is the way the organisation presents itself to the outside world.

(b) **Shared values** are the guiding beliefs of people in the organisation as to why it exists. (For example, people in a hospital seek to save lives.)

(c) **Staff** are the people in the organisation.

(d) **Skills** refer to those things that the organisation does well. For example, the UK telecom company BT is good at providing a telephone service but, even if the phone network is eventually used as a transmission medium for TV or films, BT is unlikely to make those programmes itself.

All elements, both hard and soft, **must pull in the same direction for the organisation to be effective**.

For example, an organisation will not benefit if it installs the most sophisticated, up to date management information systems, yet its managers continue to want to receive the same reports as they always have because they don't understand or trust the new technology. In this simple example, there is a **mismatch** between systems and staff/skills.

5.4 Leadership and change

Change management is a comprehensive effort to lead an organisation through transformation. To be successful, the transformation effort must be actively led and managed with a clear set of objectives and an agreed plan for achieving these objectives.

A crucial problem organisations have to address is how they can **manage change** in the fast-moving environment of contemporary business while also **maintaining control** and their **core competences**.

Designing, evaluating and implementing successful change strategies depends to a significant extent on the quality of the senior management team, and in particular that team's ability to design the organisation in a way to facilitate the change process.

5.4.1 Who leads change?

Although a CEO plays an important role in leading strategic change, leading change is not only the responsibility of the CEO.

Whetten and Cameron have pointed out:

> "… the most important leadership demonstrated in organisations usually occurs in departments, divisions, and with teams and with individuals who take it upon themselves to enter a temporary state of leadership ..."

Inevitably, though, leading change will also require competences in influencing and conflict handling, because people may need to be persuaded of the value and benefits of change.

Change may create conflict between individuals and their environment – and, often, within individuals themselves. Change can often make people uncomfortable, which is why many people resist it. Organisational change also creates potential conflict between management (who may be identified as the causes or agents of change) and employees (who often feel like the 'victims' of it).

Managing change is in essence a process of facilitating internal and external conflict resolution. So change leaders have to play a dual role of not only leading a business forward, but also resolving any conflicts which are created during the course of the change process.

5.5 Strategy, change management and HRM

Ultimately, change is inevitable in any progressive organisation. Any business that wants to thrive in an ever-changing world needs to adapt to its environment. One of the key responsibilities for an organisation's management is to detect trends inside and outside the organisation to identify changes that are needed and then to initiate a change management process to introduce those changes.

The change management process can be summarised in three steps:

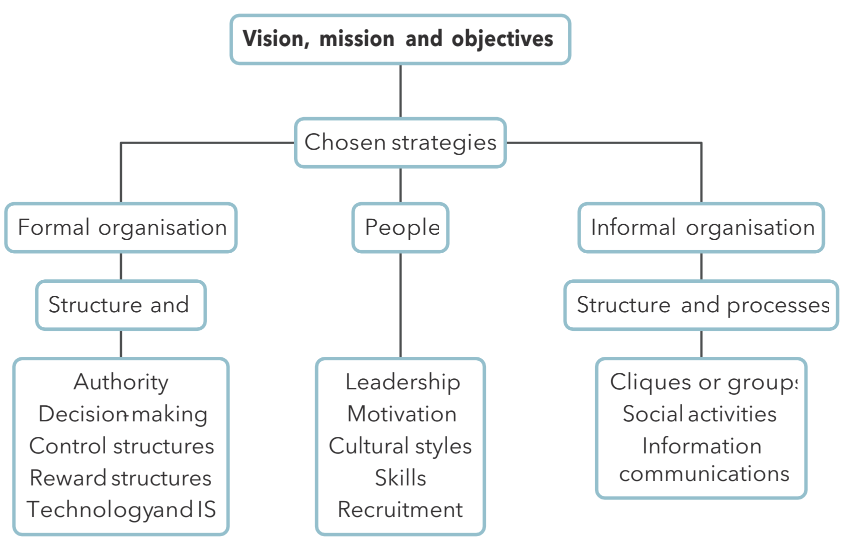
(a) **Strategic planning and design**: Form a change management team, define the vision and strategy, design a programme from which to manage the change and determine the tools needed for implementation

(b) **Strategy implementation**: Communicate the vision and implementation to staff, manage staff responses and lead them through the change; maintain momentum

(c) **Evaluation and readjustment**: Look at the results, track performance against targets, modify structure if necessary, plan for the future but continue to monitor performance

However, it is important to remember that change can affect all the aspects of an organisation and, in turn, how implementing a business strategy could require changes in all the aspects of an organisation. As the diagram below illustrates, people are likely to be central to strategy implementation and change management within organisations. Consequently, HRM also needs to be considered as an important element of change management.

Figure 10.7: HRM and strategy implementation



5.6 HRM and acquisitions

Although we have so far looked at the role of HRM in managing internal changes within an organisation, HRM is also a crucial part of an acquisition or merger.

Managing the 'human' side of an acquisition or merger is critical for maximising the value of the deal, and a number of the key issues involved in any such deal relate directly to HR issues:

- Determining the organisational structure of the new company
- Integrating the organisational cultures of the different companies
- Retaining key talent and key managers

- Communicating to staff in both companies, and addressing any concerns they may have
- Dealing with any redundancies which may be necessary
- Aligning the remuneration and reward systems of both companies
- Deciding on HR policies and practices for the new company

5.6.1 HRM and due diligence

Not only could protecting and developing the rights and interests of human resources be crucial to a successful acquisition, but there may also be legal obligations associated to it (for example, obligations relating to a pension plan, or obligations arising if employees' terms and conditions of employment are protected when a business is transferred from one owner to another).

In this respect, HR due diligence will be an important element of a takeover. The functions which are relevant to HR due diligence are likely to include the following:

- HR audit:
  - Benefits and compensation programmes
  - Recruitment process
  - Practices for recruitment and dismissal
  - Exit procedures
  - Employee contracts and employee handbooks
  - Personnel files
  - Organisation charts
  - Performance reviews, and guidelines for how employee performances are evaluated
  - Training and education programmes
  - HR strategy
- obligations under the pension plan
- union contracts/union memberships
- Evaluation of synergies, gaps and duplications in numbers and skills
- review of potential redundancies (and redundancy costs, including senior management compensation plans) and cost savings post-acquisition
- Talent retention
- Legal compliance (eg, group insurance, employment legislation, health and safety)

As we have already noted, the pre-acquisition process also needs to review organisational structure (eg, number of management layers, centralisation vs decentralisation) and the organisational 'fit' (culture and values) between the two companies.

Summary

	Tick off
Successful strategic implementation requires the effective recruitment, training and organisation of staff, coupled with effective leadership and performance management.	☐
Human resource management is vital in ensuring that an organisation attracts, and retains, the number and quality of staff it needs in order to achieve its organisational goals.	☐
To be successful, an organisation's HRM strategies need to be aligned to its business strategy. The systems of reward management and remuneration used by an organisation will vary according to its business and the generic strategy it is pursuing.	☐
Performance measurement and management are equally important in the context of HRM as they are in relation to the overall strategic and operational control of an organisation. Appraisals are a key part of performance management, and provide a link between an individual's performance and an organisation's overall strategy.	☐
It is important to recognise the potential behavioural implications of performance targets. Poorly designed performance targets may lead to an adverse impact on employees' performance and, consequently, on an organisation's ability to implement its strategy successfully.	☐
Reward systems should have three overall objectives: to support staff recruitment and retention; to motivate employees to high levels of performance; and to promote compliance with workplace rules and expectations.	☐
When formulating employee benefit packages, an organisation also needs to consider the corporate reporting implication of the decision. This has been a particular issue for defined benefit plans (in relation to IAS 19, *Employee Benefits*) in which pension scheme deficits have created large liabilities in companies statements of financial position.	☐
Human resources departments are likely to have a key role in managing change effectively. The majority of changes will be internal within an organisation, but HRM will also be crucial in relation to an acquisition or merger.	☐

Further question practice

1 Knowledge diagnostic

Before you move on to question practice, complete the following knowledge diagnostic and check you are able to confirm you possess the following essential learning from this chapter. If not, you are advised to revisit the relevant learning from the topic indicated.

Confirm your learning	
1.	What are the main components of an organisation's Human Resource Management systems? (Topic 1)
2.	What does HR planning involve? (Topic 2)
3.	How should an organisation set performance targets to best motivate employees? (Topic3)
4.	What factors should an organisation take into consideration when setting its remuneration and reward policy? (Topic 4)
5.	How should an organisation account for employee benefits in the annual financial statements? (Topic 4)

2 Question practice

Aim to complete all self-test questions at the end of this chapter. The following self-test questions are particularly helpful to further topic understanding and guide skills application before you proceed to the next chapter.

Question	Learning benefit from attempting this question
2 Elegard	In this scenario question you are required to assess the deficiencies of the current reward management scheme and to analyse the limitations of the performance measures proposed by the HR director. Note the wording of the question - you are specifically requested to look at deficiencies and limitations so do not waste time looking at the positive aspects of either the current scheme or the proposed measures. Ensure your answer applies to the scenario company, since application of knowledge to the scenario is always required in SBM&L exams.
4 Della Co	This is a short question to test your corporate reporting knowledge, which represents approximately 15-20% of the SBM&L syllabus. You are asked to show the accounting entries for three years in three different circumstances. CR style questions in the SBM&L exam are often overlooked by students so it is important to include such practice in your exam preparation. Note that SBM&L is not a corporate reporting exam and the emphasis is on the business implications arising from how items are treated in the financial statements.

Once you have completed these self-test questions, it is beneficial to attempt the questions from the Question Bank for this module. These questions will introduce exam style scenarios that will help you improve your knowledge application and professional skills development before you start the next chapter.

Refer back to the learning in this chapter for any questions which you did not answer correctly or where the suggested solution has not provided sufficient explanation to answer all your queries. Once you have attempted these questions, you can continue your studies by moving on to the next chapter.

Technical reference

1 **IFRS 2,** *Share-based Payment*

- The objective of IFRS 2 is to specify the financial reporting by an entity when it undertakes a share- based payment transaction. IFRS 2 requires an entity to recognise share-based payment transactions (such as shares granted, or share options) in its financial statements. This includes transactions with employees or other parties to be settled in cash, other assets, or equity instruments of the entity.

2 **IAS 19,** *Employee Benefits*

- Outlines the accounting requirements for employee benefits, including short-term benefits (eg, wages and salary, annual leave); post-employment benefits (eg, retirement benefits); and termination benefits. The standard requires that the cost of providing employee benefits should be recognised in the period in which the benefit is earned by the employee, rather than when it is paid or payable. The standard also outlines how each category of employee benefits are measured, and it provides detailed guidance about post-employment benefits.

3 **IAS 33,** *Earnings Per Share*

- The objective of IAS 33 is to prescribe principles for determining and presenting earnings per share (EPS) to improve performance comparisons between different entities in the same reporting period, and between different reporting periods for the same entity. IAS 33 sets out how to calculate both basic EPS and diluted EPS. The calculation of basic EPS is based on the weighted average number of ordinary shares outstanding during the period, whereas diluted EPS also includes dilutive potential ordinary shares (such as options and convertible instruments) if they meet certain criteria.

Self-test questions

Answer the following questions.

1 Connie Head

Connie Head is the recently appointed HR manager in a medium-sized accounting firm. Her appointment was a belated recognition by the senior partners of the firm that their ambitious corporate growth goals were linked to the performance of the individual business units and the accountants working in those units. Connie is convinced that performance management and an appraisal system are integral elements in helping the firm achieve its strategic objectives. This reflects her experience of introducing an appraisal system into the corporate finance unit for which she was responsible. The unit had consistently outperformed its growth targets and individual members of the unit were well motivated and appreciative of the appraisal process.

However, the senior partner of the firm remains unconvinced about the benefits of appraisal systems. He argues that accountants, through their training, are self-motivated and should have the maximum freedom to carry out their work. His experience of appraisal systems to date has shown them to lack clarity of purpose, be extremely time consuming, involve masses of bureaucratic form filling and create little benefit for the supervisors or their subordinates. Certainly, he is resistant to having his own performance reviewed through an appraisal system. Connie, however, is convinced that a firm- wide appraisal system would be of major benefit in helping the achievement of growth goals.

Requirements

1.1 Evaluate the extent to which an effective appraisal system could help the accounting firm achieve its goals.

1.2 Using models where appropriate, assess the contribution, if any, of performance management to the strategic management process.

2 Elegard

Elegard offers warranties for electrical and electronic equipment to both business and household customers. For a fixed annual fee, the company will provide a free fault diagnosis and repair service for equipment covered by the warranty. A warranty lasts for one year and customers are invited to renew their warranty one month before it expires. Elegard employs 350 full-time engineers around the country to undertake these repairs. It costs about £7,000 to train a newly recruited engineer.

When equipment breaks down the customer telephones a support help line where their problem is dealt with by a customer support clerk. This clerk has access to the work schedules of the engineers and an appointment is made for a visit from an engineer at the earliest possible time convenient to the customer. When the engineer makes the visit, faults with equipment are diagnosed and are fixed free of charge under the terms of the warranty.

Elegard is extremely concerned about the relatively high labour turnover of its engineers and has commissioned a report to investigate the situation. Some of the findings of the report are summarised in the following table (Table 1). It compares Elegard with two of its main competitors.

Table 1

Company	Labour turnover*			Average days holi-day/year	Performance related pay	Average training spent per year per engineer
		£				£
Elegard	12%	32,000	No	21	No	1,000
Safequip	8%	30,000	Yes	24	Yes	1,500
Guarantor	7%	29,500	Yes	26	Yes	1,250

*Labour turnover is the number of engineers leaving in the last year as a percentage of the number of engineers employed at the beginning of the year.An exit survey of engineers leaving the company recorded the following comments:

(1) "This is the first place I have worked where learning new skills is not encouraged. There is no incentive to improve yourself. The company seems to believe that employees who gain new skills will inevitably leave, so they discourage learning."

(2) "There is no point in doing a good job, because you get paid no more than doing an ordinary one. Average work is tolerated here."

(3) "The real problem is that the pay structure does not differentiate between good, average and poor performers. This is really demotivating."

The HR director of Elegard is anxious to address the high turnover issue and believes that quantitative measurement of employee performance is essential in a restructured reward management scheme. He has suggested that the company should introduce two new performance- related pay measures. The first is a team-based bonus based on the average time it takes for the company to respond to a repair request. He proposes that this should be based on the time taken between the customer request for a repair being logged and the date of the engineer attending to fix the problem. He argues that customers value quick response times and so the shorter this time the greater the bonus should be for the whole team.

In addition, he proposes an individual bonus. This will be based on the average time taken for an engineer to fix a reported fault and complete the job once they have arrived at the customer's address and started work on it. He argues that the company values quick repair time as this increases business efficiency and so the quicker the fix the greater the bonus should be for the individual.

Requirements

2.1 Assess the deficiencies of Elegard's current reward management scheme.

2.2 Analyse the limitations of the proposed performance measures suggested by the HR director.

3 Grateley plc

Grateley plc (Grateley) is a listed company which manufactures clothing. About 60% of its output is sold to Bloomsdale plc (Bloomsdale), a major UK-based chain of clothes stores. Clothes are sold under Bloomsdale's own label and are regarded as being in the mid- to upmarket range. The clothes are manufactured at Grateley's three factories, all of which are in the UK and are of approximately equal size.

The workforce at Grateley is largely unskilled or semi-skilled. There is poor morale, low motivation and a high staff turnover. There is little opportunity for career progression as manual employees are all at the same level, reporting directly to section managers. Trade unions frequently complain about both the repetitive nature of the production line work and the low pay. There have been three strikes at Grateley's factories in the last five years.

The management philosophy of Grateley is prescriptive and top-down, with the imposition of budgets and quotas. Little training or staff development is given, with the major focus on the achievement of output and quality targets. Employees are, however, given bonuses which are based on two different targets. First, when monthly factory output achieves predetermined levels; and second, if quality thresholds are satisfied based on the monthly number of items returned by customers as defective. On average, these targets are achieved only one month in every three.

Bloomsdale has been a major customer of Grateley for about 30 years, but a new management team has now taken over at Bloomsdale. It informed the board of Grateley that a new annual contract is to be arranged which would involve a major reduction in prices offered, and that the volumes purchased by Bloomsdale from Grateley next year would be only half that of previous years. It was also made clear that further price reductions would need to take place in future years if the contract is to be maintained at the new lower volumes.

As employees became aware of the increasingly competitive conditions, the possibility of factory closure emerged and there was increasing unrest at all three factories.

At the crisis meeting the board of Grateley identified two options:

Option 1	Close one factory and attempt to cut costs at the other two factories through a policy of efficiency improvements and redundancies.
Option 2	Close two (UK) factories and open a new factory in North Africa where labour costs are significantly lower than in the UK. Efficiency improvements and redundancies would also take place at the sole remaining UK factory.

Requirement

As the human resources director of Grateley, write a memorandum to the board evaluating the human resource management issues which may arise under each of the two strategic options identified.

Refer to relevant studies or evidence where appropriate.

4 Della Co

Della Co grants 100 share options on its £1 shares to each of its 500 employees on 1 January 20X5. Each grant is conditional upon the employee working for the entity over the next three years. The fair value of each share option as at 1 January 20X5 is £15.

On the basis of a weighted average probability, the entity estimates on 1 January 20X5 that 20% of employees will leave during the three-year period and therefore forfeit their rights to share options.

Requirement

Show the accounting entries which will be required over the three-year period in the event of the following:

- 20 employees leave during 20X5 and the estimate of total employee departures over the three- year period is revised to 15% (75 employees).
- 22 employees leave during 20X6 and the estimate of total employee departures over the three- year period is revised to 12% (60 employees).
- 15 employees leave during 20X7, so a total of 57 employees left and forfeited their rights to share options. A total of 44,300 share options (443 employees × 100 options) are vested at the end of 20X7.

You may assume that the entity maintains a share-based payment reserve in equity.

Now go back to the Introduction and ensure that you have achieved the Learning outcomes listed for this chapter.

Answers to Interactive questions

Answer to Interactive question 1

Human resource planning and strategy

ScanTech's growth plans envisage the company doubling in size over the next three years. This will require the employment of extra staff, particularly in marketing, sales and manufacturing. The ambitious planned rate of growth and the high technology base of ScanTech's business mean that these extra staff must be of very high quality. Human resource (HR) management is thus an essential component of the company's business strategy and so should be integrated with its development. The alternative is increased potential for serious shortages of staff and mismatches between job requirements and staff availability.

The proposed opening of a foreign manufacturing plant will complicate all HR issues significantly and will demand very careful consideration.

The following elements of HR planning could be useful at ScanTech:

An **audit of existing staff** should reveal those with potential for promotion or employability in new specialisations. It would also indicate where shortages already exist.

Concurrently, an analysis of **likely future staff requirements** could be carried out. It seems inevitable that ScanTech will need to employ more staff in the areas already mentioned, but it does not seem to know how many will be required, whether other functions will need to be increased in size, or if more support and administrative staff will be needed. There are also the related and sensitive issues of **management succession** and **internal promotion** to consider. In particular, ScanTech needs to consider the eventual replacement of the existing joint Managing Directors, who are expected to leave once the current growth objective has been achieved.

These two elements of analysis should help ScanTech to identify the gaps that it will need to fill if it is to have the staff required for its overall growth strategy.

Recruitment will be the logical next step once the analysis of resource requirements have been completed – in the sense of attracting applicants, and **selection** from within the pool of applicants. Recruitment work is often **outsourced** (to a recruitment agency) and it will be necessary for ScanTech to decide whether the **expertise** and **economies of scale** offered by outsourcing outweigh the need for deep familiarity with our operations on the part of the recruiters.

Reward policy must be considered. At the moment, ScanTech's staff profile is heavily biased towards people with a background in research and development. Different types of people will be required in the future and their expectations for their rewards and remuneration are likely to vary from those of the existing staff.

A doubling in size to, say, 220 employees is likely to take the company into an area of HR complexity in which a formal reward policy and structure is required. Informal decisions about pay and benefits will not be satisfactory.

Increasing size is also likely to require the establishment of a policy on **appraisal and performance management**. This should be linked to a programme of **training and development**. It is likely that ScanTech will continue to hire well-qualified technical staff, but there will be a need for development of staff in other functions and for management development in particular.

Answer to Interactive question 2

Forecast human resource demand

- Reduction in numbers of staff required in the future
- Roles – amalgamation of management roles due to reduction in number of branches
- Skills – need for staff with customer skills rather than bureaucratic and professional banking skills
- Availability – requirement for more flexible working practices, eg, late/weekend opening, 24/7 cover of call centres
- Location shift – staff will be required in off-shore centres with reductions in UK centres

Forecast human resource supply

- Potential excess supply of staff internally as internal jobs contract and external opportunities diminish
- Increased availability of staff on external labour market due to downsizing by other banks may make this a cheap source of staff – eg, on short-term contracts
- Need to consider the forecast supply in off-shore locations

Training and development

- Change in the skills and competences away from professional qualification of Chartered Institute of Bankers or Chartered Insurance Institute
- Requirement for some staff to pass compulsory regulatory exams to sell new financial products
- Regular updating of staff in new products and legal/regulatory issues

External recruitment

- Potential for cheaper sources of staff externally than internally
- Reduction in intake of school-leavers and graduates due to surplus of staff internally
- Need to access new sources of staff to cover new technologies (eg, IT recruitment)
- Recruitment will also take place off-shore

Answer to Interactive question 3

There is only limited information available about JBC's appraisal system. However, it is clear that the organisation has taken a formal approach using standardised forms with clear objectives for staff development and performance improvements.

Problems with the system can be considered under two headings – firstly inherent problems with the design and implementation of the system, and secondly problems concerning its operation.

Design and implementation problems

The system may have been poorly designed in the first place. For example, it may be based on systems used by other organisations and no thought given to whether it is suitable for JBC.

The design of the system may have reflected the needs of the organisation at that time but is no longer relevant because the company has 'moved on'.

There may have been a lack of consultation and communication with senior managers when the system was being developed. They may view it as being imposed on them and therefore are not interested in making it work.

Appraisal schemes should provide **benefits** which justify the cost and effort put into them. Senior management comments such as 'a waste of time and effort' indicate that there is an imbalance between what is put into the scheme and what comes out – for example, whether or not any staff development needs which are identified during an appraisal are actually subsequently addressed.

This imbalance may have been caused by the system being put into place because senior management thought they should be seen to have an appraisal system, rather than it being a genuine method of improving staff development and performance.

Operational problems

Senior managers may have **insufficient time** to conduct the appraisal process properly. This may reduce the scheme to a form-filling exercise just to meet HR requirements, missing the point of the scheme and its objectives.

The scheme focuses on staff development needs. This is likely to involve some **additional training costs**, and may also reduce the amount of time that academic staff are available for teaching (if they are attending training courses of their own). Therefore, managers may not see it as being in their interest to have staff undergo training. This, of course, is a short-sighted view, as properly structured training should improve JBC's performance in the long run. However, managers may not wish to wait for such benefits to materialise, preferring to focus on short-term issues and performance instead.

The scheme is **not linked to annual bonuses**. Employees are likely to act in a manner that maximises their bonus, which may be at odds with the objectives of the appraisal system.

Standard procedures indicate a **bureaucratic** or mechanical approach to appraisals. Senior managers will be faced with a large volume of identical paperwork that needs to be processed in addition to their existing workload. There is likely to be a temptation to rush through the process with not much thought to the objectives.

Appraisal schemes often involve **subjective judgements** and **opinions** by senior managers over their staff. There is a risk that employees are not assessed correctly or consistently, meaning that some staff who do not require training are offered it while others who need help to improve their performance are not.

Answer to Interactive question 4

Staff retention – It appears that SBC's current reward package for its IT consultants is not as competitive as that offered by some of its rivals. If this continues, then SBC's staff turnover could increase further, which is likely to be costly for SBC both in terms of having to recruit and train new staff and also in terms of the loss of knowledge which occurs when consultants leave.

If the new proposal means that the overall value of the consultants' salary increases, then this could help to reduce staff turnover which should be beneficial to SBC.

Value of commissions – However, it is not clear what impact the proposed changes will have on the consultants' salaries. The scenario does not indicate how much lower the new basic salary will be than the consultants' current salaries, nor does it indicate the size of the commissions received from the software companies.

It is possible that the proposal could actually end up reducing the consultants' salaries, which will have the opposite effect to what the directors are trying to achieve.

Impact on SBC's profits – Equally, however, the directors will need to ensure that the changes are not too generous in favour of the consultants because they are likely to reduce SBC's profit margins, for example because the commissions will no longer be income for the company.

Moreover, if the commission system doesn't stimulate higher sales revenue, the effect of the commissions will be to reduce profits overall. Therefore, a key issue surrounding the acceptability of the proposal is whether it will result in higher revenues being generated.

Other consultants – The directors also need to consider how the other types of consultant will respond. Again, it is not clear how much communication there is between the three types of consultant but, if advertising and recruitment consultants find out the IT consultants have had their rewards schemes revised, they may want something similar themselves.

Risk to customers – When SBC's clients are looking to select a new software system, a key factor in their choice should be how well the system fits their requirements.

Advice about the suitability of different systems is likely to be one of the key pieces of advice they want from the consultants. However, the new system could compromise the consultants' ability to give this advice impartially.

Under the current system, it appears that the consultants have no incentive to recommend one software supplier over another. However, under the proposed new system, consultants may be tempted to advise clients to buy the system that will earn them the highest amount of commission rather than the system which is best for the client.

Such practices could be damaging to SBC's reputation and future revenues.

If clients install software systems on SBC's advice which do not meet their requirements effectively, then they are unlikely to use SBC in future.

Alternative bonus/reward scheme – It appears that the commission scheme is the only option which the directors have looked at so far. However, rather than only looking at one scheme, they should also consider whether there are any alternative schemes which may be more appropriate.

For example, it is not clear whether SBC currently has any kind of performance-related pay scheme, or bonus scheme; a scheme which rewards consultants for their performance in relation to a range of targets, linked to SBC's overall objectives, may be more appropriate than the current proposal.

Answer to Interactive question 5

Statement of profit or loss and other comprehensive income notes

Defined benefit expense recognised in profit or loss	**£m**
Current service cost	11
Past service cost	10
Net interest on the net defined benefit asset (10% × (110 + 10)) – (10% × 150)	(3)
	18

Other comprehensive income (items that will not be reclassified to profit or loss)

Remeasurement of defined benefit plans	**£m**
Actuarial gain on defined benefit obligation	17
Return on plan assets (excluding amounts in net interest)	(22)
	(5)

Statement of financial position notes

Net defined benefit asset recognised in the statement of financial position	31 December 20X1	31 December 20X0
	£m	£m
Present value of pension obligation	116	110
Fair value of plan assets	(140)	(150)
Net asset	(24)	(40)

Changes in the present value of the defined benefit obligation	£m
Opening defined benefit obligation	110
Interest on obligation (10% × (110 + 10))	12
Current service cost	11
Past service cost	10
Benefits paid	(10)
Gain on remeasurement through OCI (balancing figure)	(17)
Closing defined benefit obligation	116
Changes in the fair value of plan assets	**£m**
Opening fair value of plan assets	150
Interest on plan assets (10% × 150)	15
Contributions	7
Benefits paid	(10)
Loss on remeasurement through OCI (balancing figure)	(22)
Closing fair value of plan assets	140

Answers to Self-test questions

1 Connie Head

1.1 The Senior Partner and Connie emphasise the aspects of appraisal schemes that **support their own favoured policies**. Such schemes should support the organisation's overall objectives without incurring excessive administrative and management costs.

In an organisation such as an accounting practice, the professional staff should indeed be highly **self-motivated**, able to judge the effectiveness of their own performance and bring to their work a commitment to high professional standards. On the other hand, it is inevitable that their **talents and performance will vary** and they will need **guidance and help with their future development**. Dealing with these issues would be the role of an appraisal scheme.

The overall aim of such a scheme would be to **support progress towards the achievement of corporate objectives** and it would do this in three ways: performance review, potential review and training needs review.

Performance review. Performance review should provide employees with an **impartial and authoritative assessment of the quality and effect of their work**. Individuals should have personal objectives that support corporate goals via intermediate objectives relevant to the roles of their work groups. A reasoned assessment of performance can have a **positive motivating effect** simply as a kind of positive, reinforcing feedback. It can also provide an opportunity for analysing and addressing the **reasons for sub-optimal performance**.

Potential review. Any organisation needs to make the best use it can of its people. An accountancy practice is typical of many modern organisations in that its people are its greatest asset and future success depends on managing them in a way that makes the best use of their skills and aptitudes. An important aspect of this is **assessing potential for promotion and movement into positions of greater challenge and responsibility**.

Training needs review. A further aspect of the desirable practice of enabling staff to achieve their potential is the provision of training and development activities. The appraisal system is one means by which **training needs can be assessed** and training provision initiated.

In this context, the reviews within the appraisal system would seem to be a supportive developmental process.

However, there is a tension at the heart of an appraisal system between appraisal as a **judgement process** and a **developmental process**. Whereas development will help motivate, the judgemental aspect of appraisal may **demotivate** and this will hinder the firm in trying to achieve its goals.

The appraisal system

An appraisal system must be properly administered and operated if it is to make a proper contribution to the organisation's progress.

The appraisal cycle. Formal appraisal, with interviews and written assessments, is typically undertaken on an **annual cycle**. This interval is commonly regarded as too long to be effective because of the speed with which individual roles can evolve and their holders can develop, so the annual appraisal is often supplemented with a less detailed review after six months.

Sometimes the procedure is sufficiently simplified that the whole cycle can be done at intervals of six months. Much modern thinking on this topic is now suggesting that any frequency of periodic appraisal is unsatisfactory and that it should be replaced by a **continuous process of coaching and assessment**.

This aspect of 'continuous improvement' will be more likely to help the firm achieve its goals.

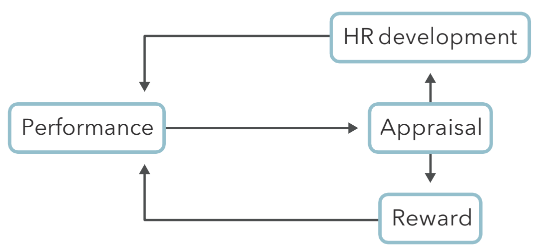
Objectivity and reliability. Appraisal involves an element of direct personal criticism that can be stressful for all parties involved. If the system is to be credible, its outputs must be seen as objective and reliable. These outputs should be used to motivate individuals to achieve their goals.

Setting targets. Past performance should be reviewed against **objective standards** and the performance against these targets should form the basis of the employee's reward.

If the approval system acts to motivate the staff by rewarding them for achieving their **individual goals** and these individual goals are properly **aligned to the** firm's **goals**, then the appraisal can be effective in helping the firm achieve its goals.

However, the goals in themselves must be **realistic and achievable**. If they are not, then staff will become demotivated and the appraisals will be counter-productive.

However, overall an effective appraisal system can help manage the workforce in a rational way, as through the feedback look illustrated below, thereby helping the firm to achieve its goals.



1.2 **Performance management** involves the establishment of clear, agreed individual **goals and performance standards**; continuous leadership action to both **motivate and appraise subordinates**; and a **periodic review** of performance at which the goals and performance standards for the next cycle are set.

Performance management is an application of the **rational model** of strategic management, in that individual goals are intended to form the lowest echelon of a **hierarchy of objectives** that builds up to support the **overall mission** of the organisation. It is an essential aspect of the system that individual goals should be **agreed and internalised** so that true **goal congruence** is achieved.

This overall approach was first described by Peter Drucker, and is seen most clearly in the system of **management by objectives** (MbO). MbO as a management system has fallen somewhat out of favour with the rise of quality management methods that emphasise processual and procedural conformance rather than the attainment of overall performance goals. Nevertheless, it has much to offer.

MbO and strategic analysis

Under a formal MbO system, the process of setting goals is part of the **implementation phase** of strategic management and follows consideration of resources, overall objectives and SWOT analysis. In this way, MbO resembles the strategic analysis stage of the rational planning model.

Strategic choice

Top level subordinate goals are agreed for heads of departments, divisions or functions: these goals should be specific, measurable, attainable, relevant and time-bound (SMART).

It is particularly important that the achievement of a goal can be established by objective **measurement**. There may be different timescales for different objectives, with short-term goals supporting longer-term ones. Again there is a parallel here to the notions of suitability, acceptability and feasibility of the rational planning model.

Strategic implementation

Departmental heads then agree SMART goals for their subordinates in discussion with them, that support their own personal goals, and so on down the hierarchy to the level of the individual employee. All members of the organisation thus know what they are expected to achieve and how it fits into the wider fabric of the organisation's mission.

Periodic **performance review** is based on the objective appraisal of success against agreed goals, the agreement of goals for the next period and an assessment of the resources, including training, that the reviewee may require to reach those goals. The MbO system thus closes the **feedback loop** in the corporate control system.

2 Elegard

2.1 Impact of the reward management scheme on staff turnovers

The engineers at Elegard are very important workers to the company. Their motivation, their commitment and their proficiency in undertaking repair work are all critical success factors for Elegard because they will influence how customers perceive the company and, therefore, whether customers will renew their warranties rather than moving to a competitor.

Elegard's high labour turnover suggests its engineers are not as motivated and committed to the company as they could be, and this is a significant problem.

High labour turnover is also a problem because of the costs incurred in training newly recruited engineers – about £7,000 each – in addition to the costs of advertising jobs and arranging interviews.

Consequently, the extent to which the current reward management scheme contributes to this high labour turnover among Elegard's engineers suggests there are a number of problems with the scheme.

Too much focus on base pay – Elegard's rewards scheme focuses on base pay with little attention given to performance pay or indirect pay. The focus on basic pay is unlikely to encourage motivation among skilled staff, like the engineers. Although Elegard's basic pay is higher than its competitors, it has a higher staff turnover rate than its competitors. This suggests that base pay alone is not an effective reward.

Lack of performance-related pay – Safequip and Guarantor both offer their engineers performance-related pay. This is likely to act as a motivating factor for their engineers, knowing they can gain extra pay by virtue of doing their jobs well. By contrast, Elegard's engineers have no such incentive. An exit interview with one of the engineers reinforces this point: 'The real problem is that the pay structure does not differentiate between good, average and poor performers. This is really demotivating'.

The HR director has recognised this weakness in the current reward management scheme, which is why he has suggested two new performance-related pay measures.

Current scheme does not promote organisational goals – The lack of performance related pay means there is little incentive for the engineers to do a good job. Given the key role the engineers play in the success of the company, this is a major business risk. If customers do not feel they are getting a good service from Elegard, they are unlikely to renew their warranties. Again, one of the exit interviews stresses the problem here: 'There is no point in doing a good job, because you get paid no more than [for] doing an ordinary one. Average work is tolerated here'.

Absence of profit share scheme – Overall organisational performance can be supported through profit sharing schemes, provided individuals' goals are properly aligned to corporate objectives.

If employees benefit from the profitability of their company, then they have an incentive to try to maximise that profitability. Both Safequip and Guarantor offer a profit sharing scheme for their engineers, but Elegard does not. This is likely to reinforce the attitude among Elegard staff that there is no point trying to do a good job, because they will get no benefit from doing so.

Levels of indirect pay – Indirect pay (or benefits) such as pension plans and private healthcare can form a valuable part of an organisation's total rewards package.

Two measures which could indicate Elegard's approach to indirect pay are the number of days of holiday staff are offered per year, and the average amount of training they are given. In both these measures, Elegard performs worse than its competitors.

Low average training spend – The relatively low amount which Elegard spends on training is a particular concern. It suggests that Elegard views training as a cost rather than as an investment in human capital.

One of the exit interviews highlights the impression this view is giving to the staff: 'This is the first place I have worked where learning new skills is not encouraged'. Elegard seems to view training as a risk, thinking that once staff gain new skills they will inevitably leave. Ironically, however, the lack of opportunities for training and development seems to be one of the reasons prompting staff to leave.

2.2 General problems

Ability of employees to influence performance measures – The key logic behind performance- related pay is that the incentive of an increased income will motivate employees to improve their performance. However, if the employees cannot influence the performance targets they are being measured against then performance-related pay will not be a motivating factor for them. Unfortunately, it seems that the performance targets the HR director is proposing are largely outside the scope of the employees' influence.

Goal congruence – Performance measures should be designed so that individuals' goals are aligned with organisational goals. If a scheme encourages employees to work in a way that maximises their individual income, but in doing so reduces the performance or profitability of their organisation as a whole, this will be a problem for the organisation. The HR director's focus on speed may create problems in this respect.

Limitations of proposed team-based bonus scheme

Response time measures outside employees' control – The HR director has proposed that the bonus should be based on the **time between a customer logging a repair request and the date the engineer arrives** to fix the problem. This correctly reflects that customers value quick response times, but it overlooks that the measure is influenced by factors outside the team's control.

The date an engineer can attend to fix the problem **depends on the availability of an engineer**. This could be influenced by the **number of engineers Elegard chooses to employ** rather than necessarily the efficiency of the engineers.

Customers can dictate visit dates – Also, Elegard's policy is to schedule visits "at the earliest possible time **convenient to the customer**". However, if domestic customers are out at work and cannot immediately take time off to be at home for a service visit, this 'convenient time' may be quite a long way in the future. The team cannot control this timescale, making it an unsuitable basis for a performance measure.

Limitation of proposed individual bonus scheme

The individual bonus will be based on the average time taken for an engineer to fix a fault once they have arrived at the customer's premises. The HR director's logic for this is that quick response time increases business efficiency.

To an extent, the engineer can control the time taken to fix a fault, but there are still some significant problems with this measure.

Repair time depends on the complexity of the problem – An engineer called out to fix a complex problem will inevitably take longer than an engineer who has to fix a simple problem. This measure would therefore penalise engineers working on complicated problems, which ironically could be the most important jobs for Elegard to do well.

Trade-off between speed and quality – The performance measure might encourage engineers to perform a **quick fix** (to get the job signed off) rather than to sort the underlying problem properly.

Consequently, the **measure could actually increase the volume of repairs** Elegard has to undertake, whereas the business model is based on the need to minimise calls and repairs.

In this respect, the HR director's proposal would create a **problem with goal congruence**. By performing low-quality quick fixes individual engineers can boost their own incomes, but their doing so will damage the profitability of the company as a whole.

Inaccurate job reporting – The measure could also encourage engineers to misrepresent the time they actually spent on a job. The bonuses are based on the time taken to fix **a fault once the engineer has arrived at the customer's premises**, so if an engineer claims it took longer to get to a client than it did the engineer can **artificially reduce the time reported against the job**. Again, the measure is promoting behaviour which is unhelpful for the company as a whole. For example, if customers' warranty fees are calculated according to the time taken to fix faults, an understated time could result in Elegard charging a warranty that is too low, which in turn could cause restriction of Elegard's profits.

Focus only on time – As well as these specific issues around goal congruence, the HR director's proposals suffer through focusing exclusively on time. While speed is important to the customer (and so is an important performance measure), the proposals would benefit by including other measures which address quality, skills or training. The lack of focus on quality and training are key issues behind the current high staff turnover, yet these proposals do nothing to address this.

3 Grateley plc

MEMORANDUM

To:	The Board of Grateley plc
From:	HR Director
Date:	[today's date]
Subject:	HRM implications of strategic options

In broad terms, approaches to human resource management can be classified into 'hard' and 'soft' approaches, and these represent opposite ends of the spectrum.

Hard approach. Emphasises **resources** element of HRM. Human resources are planned and developed to meet the wider strategic objectives of the organisation, as with any other resource. This involves managing the functions set out below to maximise employee effectiveness and control staff costs.

Soft approach. Emphasises **human** element of HRM. This is concerned with employee relations, the development of individual skills and the welfare of staff.

Grateley currently adopts the hard view of HRM but this needs consideration given the magnitude of change elsewhere in the organisation. The implications of this approach and of the proposed changes themselves can be seen in all the HRM functions within the company.

Personnel planning and control. This is the analysis of the organisation's future need for employee resources, with respect to quantity and skills, given the nature of the labour market.

The most obvious feature in the current circumstances is to allow for the loss of business from Bloomsdale. The reduction in future employee levels will need to correspond with future demand for Grateley's output. If Bloomsdale is halving the volume of its purchases from Grateley and these currently account for 60% of revenue, then total revenue in future will be around 70% of its current level (ie, 60% × ½ from Bloomsdale, and 40% from other customers). This would indicate that at least one factory will need to be closed unless Grateley is able to attract any significant new customers, and even this is dependent on Bloomsdale not cutting its purchase further in future.

If there is to be a new factory in North Africa then appropriate planning is necessary to determine the optimal quantity of new labour. This may not be the same as for a UK factory because of differences in labour productivity, different levels of capital investment, different procedures and employee agreements, different motivation and incentives, and different labour costs.

Recruitment and selection. Choosing the right person for the posts specified in the job design. There is unlikely to be recruitment in the UK, but under strategic option 2 there will be significant recruitment in North Africa and this would be a major HRM exercise in an unfamiliar labour market.

Remuneration. Preparing remuneration packages for employees to provide appropriate incentives while controlling costs in the circumstances of the organisation and the labour market. This may involve participation in collective bargaining with trade unions.

It would appear that labour rates are relatively low for the UK but are likely to be much lower in North Africa.

The two issues here are the amount of remuneration and the form it takes in terms of incentives or conditions.

In terms of total remuneration per employee, the company is restricted by the need to control costs and to meet Bloomsdale's demands on price. This in turn is determined by competitors' prices in the clothing market. The other constraint, however, is the UK labour market whereby it might not be possible to attract the appropriate quality and quantity of labour in the long term if pay is too low.

Other conditions, such as the minimum wage and union agreements, also constrain the ability to reduce the remuneration per employee.

However, while there are a number of constraints on remuneration per employee, labour cost savings can be made by labour efficiency gains. There has been strong union resistance to this in the past but, given the external threat from Bloomsdale, there is an improved prospect of managing redundancies at those UK plants remaining open as part of a reorganisation package.

In North Africa, labour costs would be much lower but the workforce is likely to be, initially at least, unskilled and there would be a need to develop the right corporate culture in order to maintain quality of output. Transportation costs (inward and outward), set-up costs and inventory holding costs would partially offset any labour cost advantage.

Incentives. The incentives schemes presently in operation in the UK do not appear to be working, given the failure to meet targets in two months out of three. Low motivation and morale also seem to be apparent. Studies argue, however, that financial reward can only have a limited effect on motivation (eg, Maslow, McGregor Theory X and Herzberg). Thus, while the form of remuneration should be reconsidered, other aspects of HRM should also be examined to try to improve morale and motivation at existing UK factories and to develop them at the North African factory if option 2 is selected.

Employee communication and counselling. Developing communication channels to and from individuals, groups and all employees collectively, but also participation in operations, such as communication procedures.

The top-down management approach may be partly responsible for the lack of motivation. The nature of the work, culture of instruction/imposition and the lack of opportunity to advance would all appear to reduce motivation for employees. There might therefore be a key role for HRM both in changing management style in existing plants and also in developing a new management style for the potential new plant. This could lead to increased motivation and improved output and efficiency.

A study by Blake and Mouton analysed management style within a two-dimensional matrix (or managerial grid). The two factors identified were: (1) concern for people; (2) concern for production or task.

In the context of this matrix, the management style at Grateley could be regarded as high in terms of (2) and low in terms of (1). A new style of participation might be regarded as more balanced between the two factors. Indeed, to the extent that participation may lead to greater motivation and increased production, it could be viewed as high in respect of both of Blake and Mouton's factors.

Studies (eg, the Hawthorne Experiments) have also indicated the potential for motivation through consultation. In the Hawthorne Experiments, the work carried out by staff was repetitive and boring. A series of changes were introduced after consultation with employees. After the changes, productivity rose in almost every case. The rise in productivity was as much due to the fact that employees had been consulted (and so felt appreciated) as due to the nature of the changes themselves.

A particular issue in Grateley's case will be the likely cultural differences between the UK and most North African countries. This may result in different types of motivation, different work methods and different managerial styles being appropriate.

Job design. Producing a job description and job specification in terms of experience, skills and education. In setting up a new workforce in North Africa, a major exercise in job design and specification will be necessary.

Training and development. Involves the analysis of training needs and the organisation of the provision of training and staff development to meet those needs. Includes new and existing staff, and all levels of management.

In terms of the new jobs in North Africa, training all new employees simultaneously is a major undertaking.

Even in the UK, however, the scale of the labour reductions under either option is likely to involve reorganisation of the workforce, which could have implications for training needs.

Compliance with legal and other standards. Involves informing and advising managers of employment, contract and other relevant law with respect to employees, and setting up procedures to comply with such legislation and other codes of conduct, agreements and ethical standards.

In North Africa, the law and codes of conduct are likely to be different to the UK and a learning process will be needed. Local expertise will be necessary in employment law.

Moreover, even if employment laws in North Africa are less strict than in the UK, in terms of being seen as a socially responsible company, Grateley will need to consider whether its own policies are more stringent than required by local law.

Other HRM issues are likely to include performance appraisal, disciplining employees, grievances and disputes, and workforce diversity.

The closure of one or more of the UK factories will also lead to specific HRM issues around redundancies. Grateley will need to be seen to act fairly and ethically in terms of any redundancies in order to protect the company's reputation and to avoid any legal claims being brought against it, particularly given the unionisation of the workforce.

4 Della Co

20X5	£
Share-based payment reserve c/f and P/L expense ((500 – 75) × 100 × £15 × 1/3)	212,500

	£	£
DEBIT Staff costs	212,500	
CREDIT Equity – share-based payment reserve		212,500

20X6	£
Share-based payment reserve b/f	212,500
\Profit or loss expense	227,500
Share-based payment reserve c/f ((500 – 60) × 100 × £15 × 2/3) =	440,000

	£	£
DEBIT Staff costs	227,500	
CREDIT Equity – share-based payment reserve		227,500

20X7	£
Share-based payment reserve b/f	440,000
\Profit or loss expense	224,500
Share-based payment reserve c/f (443 × 100 × £15) =	664,500

	£	£
DEBIT Staff costs	224,500	
CREDIT Equity – share-based payment reserve		224,500

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