CHAPTER 1

Role of operations management

OVERVIEW

1.1 Introduction
1.2 Strategic role of operations management
1.3 Goods and/or services in different industries
1.4 Interdependence with other key business functions

1.1 Introduction

BizWORD

Operations *refers to the business processes that involve transformation or, more generally, 'production'.*

All businesses are involved in processes that involve transformation. **Operations** refers to the business processes that involve transformation or, more generally, 'production'. It is a term that applies both to the manufacturing and services sector. In manufacturing, operations refers to the processes involved in turning raw materials and resources into outputs of finished goods or products. Examples include a vehicle manufacturer turning steel into cars or an oil refiner converting crude oil into petrol or paraffin for candle making. In the services sector, operations refers to the processes involved in actually carrying out the service. Examples include the provision of professional advice by a solicitor and the washing, cutting and styling of hair by a hairdresser.

BizWORD

Transformation *is the conversion of inputs (resources) into outputs (goods and services).*

Value adding *is the creation of extra or added value as inputs are transformed into outputs.*

Apart from **transformation**, operations involves the creation of value by businesses. Both transformation and **value adding** will be discussed fully in chapter 3. Operations processes are broad and include aspects of all of the following activities undertaken in business:

- the production of goods and services
- production controls and associated quality controls on processes. Included in this are input management and capacity (volume of output) decisions.
- inventory controls
- supply chain management (SCM)
- logistics and distribution
- management decision making in terms of operational processes.

The operations function is an intrinsic aspect of business processes and overlaps with, and is interdependent to, all of the other business processes and key business functions. This is shown in figure 1.1.

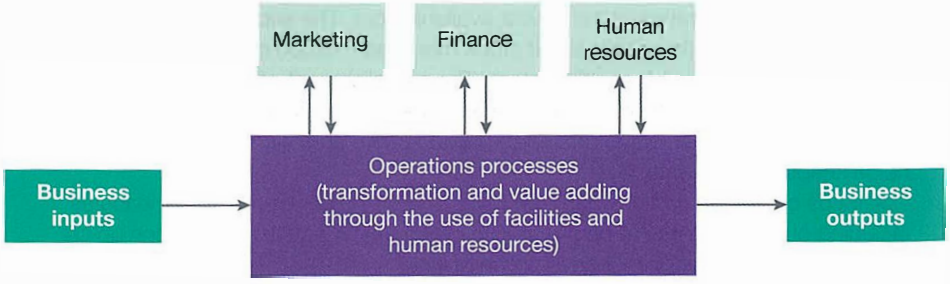


FIGURE 1.1 The overlap of operations with other key business functions

1.1.1 Operations — inputs and outputs

Operations can be described as those processes that help transform business inputs into business outputs. Business inputs include tangible things such as raw materials, land, human resources, capital in the form of facilities and technology, as well as intangible inputs such as ideas and information. Business outputs include the products (goods and services) made from the processes of transformation — that is, operations. This is shown in figures 1.2 and 1.3.

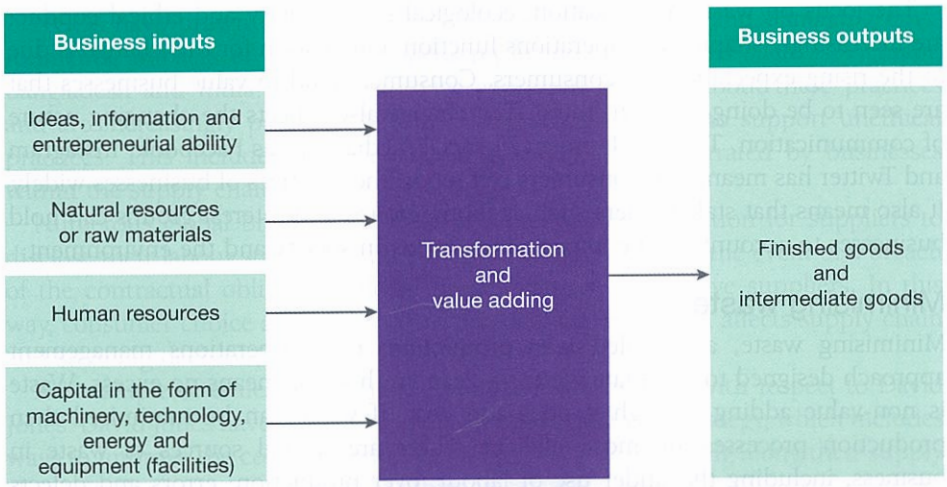


FIGURE 1.2 Transformation for a producer of goods

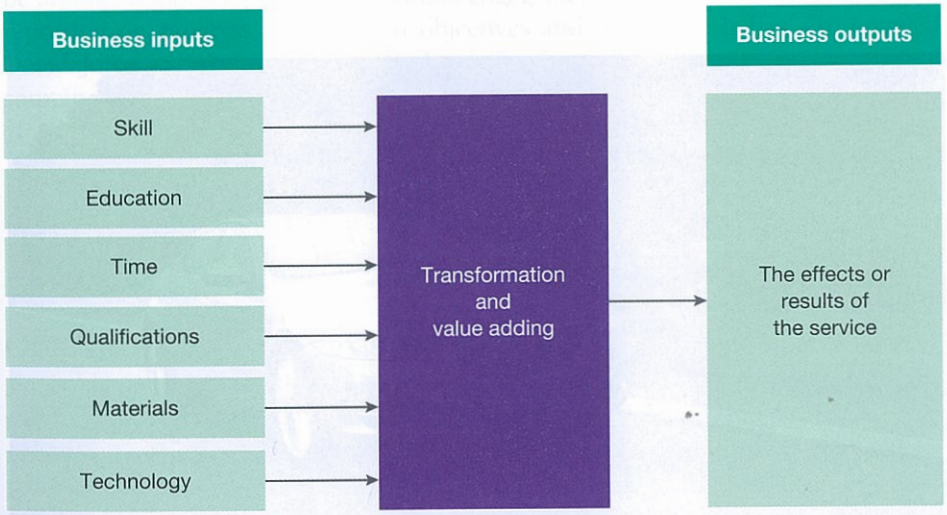


FIGURE 1.3 Transformation for a producer of services

1.1.2 Operations and the customer focus

Historically, in manufacturing businesses, the operations function was considered to be hidden in the sense that the customer was not relevant to production processes. Over time, however, with a focus on customers and customer relationships, this has changed. In contemporary business practice the customer and their needs are placed foremost. Customer needs, however, are not always obvious. It may be clear that customers want innovative products at low cost that improve quality

of life. However, it may not be clear that customers also desire firms to engage in processes that:

- minimise resources in their production — lean production utilises minimal resources, reducing waste and materials usage
- reflect fair value for any labour used in processes
- operate at low cost so as to maximise affordability
- integrate environmental awareness and a need for ecologically sustainable practices
- reflect changes in the needs of consumers over time.

The focus on waste minimisation, ecological sustainability and ethical conduct are increasingly shaping the operations function. One reason for this change is due to the rising expectations of consumers. Consumers tend to value businesses that are seen to be doing the right thing. The change also reflects the changing nature of communication. The development of social media such as Facebook, Instagram and Twitter has meant that consumers can report the practices of businesses widely. It also means that stakeholders such as lobby groups and interest groups can hold businesses to account for the impacts they make on society and the environment.

BizWORD

Lean production *aims to eliminate waste at every stage of production. It involves analysing each stage of the production process, detecting where inefficiencies are and correcting them.*

Minimising waste

Minimising waste, also called **lean production**, is an operations management approach designed to eliminate waste — 'lean' in this case means no excess. Waste is non-value adding, though it does add cost. If waste can be minimised then production processes are most efficient. There are several sources of waste in business, including the under use of labour, over production, errors and defects requiring remediation or creating lost product, under utilisation of machinery, slow lead times and waiting times within processes, and carrying of excess inventory. Each of these sources of waste adds cost but does not add value.



FIGURE 1.4 Jaguar, the high-quality British car brand, has also incorporated lean manufacturing into the way it produces its motor vehicles.

Reflect fair value for any labour used in processes

It is important to consumers that businesses operate fairly and compensate and treat employees appropriately. The growth of the fair trade movement is a direct result of consumers advocating for operations processes in production and supply to integrate notions of a fair price, decent working conditions, ethical sourcing and local sustainability.

Ethical sourcing

Businesses are increasingly engaging in a practice known as **ethical sourcing**. With ethical sourcing a business requires its suppliers to engage in ethical conduct such as the payment of fair wages and the use of environmentally friendly practices.

Historically, businesses did not concern themselves with the practices or standards of their suppliers; all that mattered was cost and reliability of supply. However, consumers are making more informed decisions about which businesses they will buy from and are concerned about how businesses source their supplies as well as the practices and standards used by businesses within a supply chain.

NGOs have drawn attention to the poor labour practices and damaging environmental impacts of businesses operating in low-cost nations such as Vietnam, Bangladesh and India. Consumers have expressed concern about these practices and are increasingly purchasing from businesses that refuse to support unethical practices. This includes if the unethical practices are perpetrated by businesses within the supply chain.

Numerous global brands now make it a contractual obligation for suppliers to disclose their labour standards and environmental impacts. In the event of a breach of the contractual obligation, global brands can use alternative suppliers. In this way, consumer choice affects corporate practice, which in turn affects supply chain and sourcing decisions.

An example of ethical sourcing requirements can be seen with respect to David Jones. David Jones have outlined a five-year ethical sourcing strategy, which includes ways to improve the conditions and wellbeing of people working along their supply chain. It also contains a focus on ethics in business, animal welfare and environmental sustainability. The new ethical sourcing strategy has been developed in collaboration with customers, buyers, suppliers and not-for-profit groups. This will be an ongoing process, involving annual engagement with stakeholders and formal reporting on progress of their own objectives and initiatives. It has also entailed David Jones creating a Supplier Code of Conduct. As they note on their ethical sourcing website:

> Critically, we will influence positive outcomes along our supply chain by adopting a collaborative approach that supports continuous improvement. We will be open and honest about the complexity of the challenges that lay ahead but we will also be very clear in relation to what we expect of our suppliers…

Operate at low cost so as to maximise affordability

All consumers seek to buy goods and services at low cost. Businesses aim to maximise profitability through generating sales revenue. In highly competitive markets, businesses try to capture market share by lowering costs; this will be reflected in lower prices. This need for consumers to buy affordable goods and services directly affects the operations function of business. In terms of a manufacturing enterprise, businesses will continually seek to minimise production costs so that the retail prices for consumers are as low as possible.

Global sourcing and astute supply chain management (SCM) are essential features of effective operations management. The ability to operate at low cost can depend on from where the product is sourced and how it is transported to the business. Access to low-cost suppliers can ensure that the business makes the final price to consumers as low as possible.

Operations processes adjust to shifting needs

The changing needs of consumers means that the operations function is continually adapting and changing. Improvements in technology mean that the capability and functionality of products is changing and the way people do things is also

BizWORD

Ethical sourcing *refers to business practices of sourcing from suppliers that engage in ethical conduct such as the payment of fair wages and the use of environmentally friendly practices.*

changing. This can be seen through advancements in communications and digital technologies. Businesses such as Apple, Samsung, Toyota and Google have all harnessed technology in innovative ways. These globally successful business and brands have been able to keep up with changes in consumer markets and in some cases drive changes in consumer markets.

SUMMARY

- Operations involves various processes that transform and add value to business inputs in the creation of outputs.
- Operations is informed by the business drive to maximise profits and also increasingly by the needs of consumers.
- Minimising waste, or lean production, is an operations management approach designed to eliminate waste.
- The growth of the movement to source ethically has grown as a direct result of consumers advocating for operations processes in production and supply to integrate notions of a fair price, decent working conditions and local sustainability.
- In terms of a manufacturing enterprise, businesses will continually seek to minimise production costs so that the retail prices for consumers are as low as possible.
- As consumers seek innovative goods, businesses will create innovative goods.

EXERCISE 1.1 REVISION

1 **Define** the term 'operations'.
2 **Clarify** the relationship between transformation and value adding.
3 **Distinguish** between business inputs and business outputs.
4 **Identify** five business inputs.
5 **Identify** the way in which businesses can transform inputs into business outputs.
6 **Demonstrate** how the operations function is starting to integrate a consumer perspective.
7 Draw a simple, step-by-step diagram **summarising** how five different areas of consumer concern impact on the operations function of a business.
8 With reference to a case study of a business, **demonstrate** the importance of the operations function.
9 **Explain** how new business opportunities can arise as technology changes.

EXERCISE 1.1 EXTENSION

1 **Investigate** how the operations management function supports the business in achieving its goals.
2 **Evaluate** how customer choice can influence a business to undertake business operations that are ecologically sustainable.
3 **Examine** the effect that stakeholders such as consumers are having on helping ensure that businesses engage in environmentally sustainable practices. **Create** a 500-word report, including references to at least two businesses.

1.2 Strategic role of operations management

BizWORD

Strategic *refers to long-term, broad aims affecting all key business areas; that is, the strategic role of each key business function involves the managers of each function contributing to the strategic direction or strategic plan of the business.*

Operations management is an essential key business function that overlaps with the other business functions such as marketing, finance and human resource management (HRM). Each of these essential business functions has a **strategic** component. Strategic means 'affecting all key business operations'; that is, the strategic role of the operations management involves operations managers

contributing to the strategic direction or strategic plan of the business. This is shown in the Snapshot of Virgin Australia.

Case study: Virgin Australia — strategic directions

Commencing operations in Australia in 2000, Virgin Airlines is the second largest domestic carrier after Qantas. Virgin Airlines runs domestic flights between the Australian capital cities. Following a takeover of Skywest Airlines in early 2013 and the purchase of 60 per cent of Tiger Australia in mid-2013, Virgin Australia also has a strong presence in both domestic regional markets and in South-East Asia. The company also flies internationally through the South Pacific and to the USA, Middle East and Europe.

Decisions made in the operations function have a direct impact on the other key business functions. For example, the decision to acquire Tiger Australia had significant financial implications. The scale of Virgin Australia's operations is increasing and as the business acquires other airline brands, the operations function becomes more complex. Virgin Australia has therefore used technology to reduce duplication and to create operational efficiencies that save $200 million annually.

The increase in scale also means an increase in customer numbers. Evidence of this was seen in a growth in Velocity membership loyalty rates of 15 per cent in 2013. Apart from the operations decisions affecting the financial results and the marketing objectives, the growth in scale of operations has led to effects on the human resources function. Employment numbers have grown and the types of skills required have changed as the business invests in state of the art technology to effectively manage the global operations.

Virgin's business strategy is to grow domestically and globally. Virgin Australia is controlled by shareholders from other airlines including Etihad, Singapore Airlines, Hainan Airlines and Richard Branson's Virgin Group. The company aims to be the lowest cost operator in the international market, as well as in the domestic corporate, leisure and regional markets. Having already increased its passenger numbers from 20 million in 2014 to 24.2 million in 2017, the business is growing quickly.

In terms of strategy for the period 2017–20, Virgin Australia has simplified its aircraft fleet and rationalised its supply chain. It has also created a five-year strategic alliance with HNA Aviation, Hong Kong Aviation and HK Express in order to access the Chinese market. These changes enabled the business to turn a before-tax loss of $49.1 million in 2015 to a $41 million profit in 2016. The Chinese market is expected to offer significant growth and returns for Virgin Australia over the next five years.

SNAPSHOT QUESTIONS

1. **Outline** the nature of the airline market in Australia.
2. **Define** the term 'strategic'.
3. **Explain** how operations decisions have affected the finance, marketing and human resource function of Virgin Australia.
4. **Discuss** how an investment in technology can help to reduce costs in a business such as Virgin Australia.
5. **Explain** the importance of the new strategic alliances for Virgin Australia's growth over the next five years.

SNAPSHOT



'. . . company aims to be the lowest cost operator in the international . . . domestic corporate, leisure and regional markets'

What makes a role strategic is not so much the length of time, but rather the level with which it integrates and affects all key business areas.

Generally, the overarching goal of business is to maximise profits. In most businesses, this is done by focusing on two very important aspects of profit:

- revenue or income
- costs or expenses.

Revenue or income should be maximised so as to bring in the greatest possible volume of money. Conversely, costs need to be minimised in order to reduce the overall level of expenses incurred.

Financial and marketing aspects of business tend to specifically target the revenue side of the business. Costs, however, are not only left to the operations and human resource function. This is because all aspects of the business incur cost, even though all aspects are not generating revenue directly. This type of analysis of revenue and cost looks at the business as a series of **profit centres** and **cost centres**.

Profit centres are those aspects of the business that directly derive income. Cost centres are those that do not directly derive income but do incur cost. The operations function is a cost centre in a business. A strategic aspect of operations management is therefore the management of cost.

BizWORD

Profit centres *are those aspects of a business that directly derive revenue and profits.*

Cost centres *are particular areas, departments or sections of a business to which costs can be directly attributed.*

1.2.1 Cost leadership in the operations function

There are several different sources of operational costs in business. There are input costs, processing or transformation costs and the costs of getting products to markets. There are also costs associated with inventory management and quality management. Some of the different types of cost are shown in table 1.1.

TABLE 1.1 An overview of the types of cost within the operations function

Costs that are a feature of the operations function				
Input costs	**Labour costs**	**Processing costs**	**Inventory costs**	**Quality management costs**
• Facilities • Land • Resources • Interest on investment • Leases on machinery • Installation and testing • Energy	• Full-time and part-time employees • Casual employees • Subcontractors • Overtime • Recruitment and training • Redundancy • Rostering	• Machinery maintenance • Electricity • Scheduling • Product design • Template and tooling • Prototyping	• Back order • Logistics and distribution • Storage • Inventory management • Insurance • Deterioration • Shrinkage and theft • Damaged goods	• Prevention of loss through quality planning and training • Sampling and inspection of goods and processes • Error and remediation through warranty claims, sales returns and complaints • Machining errors, injury and machine downtime

BizWORD

Cost leadership *involves aiming to have the lowest costs or to be the most price-competitive in the market. A key aspect to cost leadership is that although trading with the lowest cost, the overall business should still be profitable.*

It should be clear from the table that there are numerous sources of cost that are incurred when undertaking operations processes. Therefore, an intrinsic aspect of strategic operations management involves cost leadership. **Cost leadership** involves aiming to have the lowest costs or to be the most price-competitive in the market. A key aspect to cost leadership is that although trading with the lowest cost, the overall business should still be profitable. This means that operations managers must find ways to minimise costs.

SNAPSHOT



'. . . if inventory is not continually moving then the cost is increasing.'

Case study: Walmart — cost leadership

Walmart has two different slogans: 'Every Day Low Prices' and 'Save money. Live better'. These slogans indicate Walmart's approach to cost that has made it a global example of successful cost leadership. Walmart will not engage in sales discounting, preferring to have the lowest prices daily and not needing to lower selling prices through discounting.

Walmart founder, Sam Walton, articulated the company vision as follows:

If we work together we'll lower the cost of living for everyone . . . we'll give the world an opportunity to see what it's like to save and have a better life.

In order to achieve the lowest prices possible Walmart has undertaken some significant decisions in the management of its supply chain and sourcing. Three aspects to Walmart sourcing and supply chain management are significant:

1. Walmart has over 100 000 suppliers. When it approaches, or is approached by, a supplier the business aims to negotiate large volumes of supply. In this way the supplier can obtain a guaranteed minimum return and the company can save

money because of economies of scale generated. The guarantee of supply means the business can ensure that stock levels are maintained.

2. Walmart management have realised that if inventory is not continually moving then the cost is increasing. This means that the movement of stock from the supplier to the actual stores is constant up to the point of sale. In order to manage this process, Walmart reduces its reliance on warehouses. Warehouses add cost and keep stock stationary. While some warehouses are necessary, they are strategically located to enable short lead times between the storage facility and retail outlets. The company has a sophisticated system of cross-docking (see BizFact on the right) that requires the use of leading edge technologies and the capacity to track the movement of all sourced items at all times.
3. The lack of warehouses had meant that Walmart could not keep up with Amazon, a direct competitor in the online retailing space. Walmart has recently set up warehouses in order to manage its growing e-commerce presence.

SNAPSHOT QUESTIONS

1. **Define** the term 'cost leadership'.
2. **Outline** two areas of operations to which Walmart applies cost leadership strategies.
3. **Summarise** three approaches taken by Walmart to reduce supply-side costs.
4. **Explain** how cross-docking can reduce inventory management costs.

The balance between cost and quality

There is a direct relationship between cost and quality. As the standard of materials, labour and other inputs rises, and the precision and speed of facilities and equipment rises, the prices of products made by the business will increase. Conversely, if the costs of inputs is very low then it is likely that the final prices will reflect the lower quality of inputs and processes. Operations managers and those who lead the other business functions will need to decide what level of quality is sought and hence what level of costs to incur. In this way they will need to decide what balance to create between costs and the desired quality.

Economies of scale and cost management

One aspect of cost leadership arises from a business creating economies of scale. **Economies of scale** refers to cost advantages that can be created because of an increase in scale of business operations. Typically the cost savings come from being able to purchase lower cost per unit of input and efficiencies created from the improved use of technology and machinery.



BizFACT

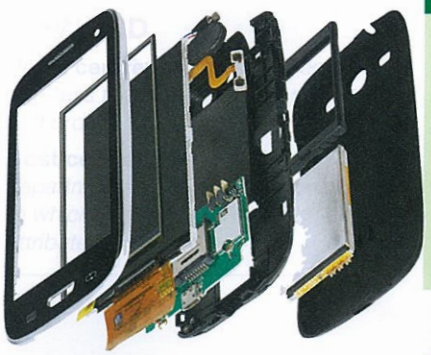
Cross-docking describes a process whereby stock from suppliers is transferred to distributors without the need for holding in between. Normally, businesses gather their source inventory at a warehouse or distribution centre. The stock is offloaded from the supplier, stored and then later retrieved for distribution to the retail outlets. Cross-docking means that most inventory is never stored in a warehouse, but is brought to a point where it can be directly transferred for shipment to retail outlets.

BizWORD

Economies of scale *refers to cost advantages that can be created as a result of an increase in scale of business operations. Typically the cost savings come from being able to purchase lower cost per unit of input and from efficiencies created through improved use of technology and machinery.*

FIGURE 1.5 Rationalisation in the Australian dairy industry has resulted in lower overall costs and economies of scale. Since milk production has not grown over the past decade the industry has had to find means by which to create economies of scale by using existing facilities as efficiently as possible.

SNAPSHOT



'Seeing an opportunity to reduce costs of labour, capital costs, taxation and environmental costs, the company decided to relocate production . . .'

Case study: Samsung — cost leadership in innovative manufacture

Samsung is well known for its production of smartphones. As the biggest competitor to Apple in the phone market, Samsung has led the way in terms of cost reductions. Seeing an opportunity to reduce costs of labour, capital costs, taxation and environmental costs, the company decided to relocate production from Korea and China to Vietnam, a regional neighbour, in 2016. The Vietnamese government assisted through allowing ten years of tax concessions. Samsung spent $2 billion on the relocation, but saved so much money that despite a product fault affecting overheating batteries in 2016 it still generated profits.

1.2.2 Goods/service differentiation

A second key strategy applied by operations managers is that of product differentiation. Products may be classified as either goods or services. The characteristics that distinguish goods and services are shown in table 1.2. Generally, services only come into being as the result of a need for that service; it does not exist prior to the need. Contrast this situation with that of goods. Typically goods already exist even before a person seeks them.

TABLE 1.2 Distinguishing between goods and services

Characteristics	Features of goods	Features of services
Tangibility and perishability	They are tangible. That is, they have a physical dimension in that they can be seen, moved, touched and stored. Some goods are perishable in that they may spoil if not used (e.g. fresh fruit).	Services are intangible. They only exist while they are being performed, although the effects may endure for long after the completion of the service.
Customisation	Goods tend to be standardised, though they can sometimes be customised.	Services are generally customised, though they may be standardised to a high degree.
Ownership	Goods can be owned and transferred between people through the sale of ownership.	Services cannot be owned.
Time between production and consumption	The length of time between the production of goods and their consumption can be considerable.	The production of services and the consumption of services are simultaneous.
Determination of value	Value can be independently ascertained through costing all inputs and adding a margin. Inputs can easily be determined: cost of labour, materials and transformation plus a margin for profit.	Value is highly subjective and depends what the market is prepared to bear. However, value will increase with the service provider giving high levels of skill, longer time, high levels of education and experience, and high levels of ability and expertise.

Sometimes goods and services are so closely aligned that it can be hard to distinguish them. Consider the following. You go to a fast-food provider and buy two pizzas. The pizzas are goods that are perishable and should be eaten while fresh. However, the goods cannot be separated from the service that comes with it: the way in which the customer is treated by the person taking the order, the customisation of the goods to meet the customer's specific requirements, the layout of the store and the skill of the chef preparing the ingredients.

Product standardisation and differentiation

Standardisation involves the making of products that are homogeneous or identical. Typically, this involves mass producing items in high volume, with no variety and at a low cost per unit. Standardisation is directly related to economies of scale.

Apart from cost leadership, operations managers can opt for a strategy of competing in markets based on product differentiation. **Product differentiation** means distinguishing products (goods or services) in some way from its competitors. There are different forms of product differentiation, and product differentiation will be different for goods and for services.

Product differentiation: goods

Goods can be differentiated in a number of different ways. At a basic level, colour variation can constitute product differentiation. Other sources of differentiation in goods include:

- *varying the actual product features*. Generally goods will come in one basic variety and then in other varieties of increasing complexity or options. Thus, a breakfast cereal at its most basic can be processed grain, or it can be a mix of the processed grain with added ingredients such as sugar, dried fruit and nuts. In reference to electronic goods, products are made with remarkable variation as a means of differentiating the market.
- *varying product quality*. This can be done by making a low-quality model that is very affordable and then increasing the quality (which will be reflected in the higher price). Sometimes the higher quality alternative may be sold under an alternative trade name so that the market perceives both products as being produced by different producers.
- *varying any augmented features*. This refers to add-ons or additional benefits associated with particular goods. Typically, augmented features are seen in electronic goods and motor vehicles. For example, a car manufacturer may allow consumers to buy a vehicle with the capacity to fit a spoiler, windscreen wipers on headlights, a built in GPS and self-parking (autopilot) systems. These are not standard features or variations on standard features, but rather additional features that can significantly vary a product.

From an operations perspective, a strategic approach assesses the different options and determines which ones can be undertaken with a cost leadership focus.

Product differentiation: services

Like goods, services can be differentiated in a number of different ways. Sources of differentiation in services include:

- *varying the amount of time spent on a service*. Time is a factor that differentiates between service-providers.
- *varying the level of expertise brought to a service*. If a person has a higher level of expertise then, as a service-provider, they can provide a more specialised service.
- *varying the qualifications and experience of the service provider*. Highly qualified and experienced service providers can significantly affect the quality of service provided. This will be an important factor for consumers when deciding between service providers.
- *varying the quality of materials/technology used in service delivery*. The use of computer-based technologies such as accounting software, CAD and CAM programs, medical technologies and ICTs can significant affect the quality of service provided and is a notable source of differentiation in the services sector.

Again, from the operations management perspective, a strategic approach to service delivery will require managers to assess how much emphasis to place on which aspects of the services mix to best meet customer needs while reflecting cost leadership principles.

BizWORD

Standardisation *refers to the making of products that are homogeneous or identical.*

Product differentiation *means distinguishing products (goods or services) in some way from those of competitors.*



FIGURE 1.6 The IT section of a multinational bank requires a highly specialised and differentiated service. Any security systems in place need to be flexible, adapt to the range of IT issues and threats (from identity theft, spam and industrial espionage) to routine processing matters and inquiries. Quality of systems, high level expertise, speed and security are necessary features of the IT security platform.

Cross branding

For both goods and services, differentiation can be created from cross branding or strategic alliances. This approach adds value to products (goods and services) by offering consumers added benefits from a cross-branding arrangement. Examples include the Woolworths–Caltex alliance and the Coles–Shell alliance. Here products are differentiated, but the differentiation is not from the product itself but rather from an external factor that the business has brought into the mix.

SUMMARY

- Operations management is an essential key business function that overlaps with the other business functions such as marketing, finance and human resources management (HRM).
- There are several different sources of operations costs in business. There are input costs, processing or transformation costs and the costs of getting products to markets.
- Cost leadership involves aiming to have the lowest costs or to be the most price-competitive in the market.
- Economies of scale refers to cost advantages that can be created because of an increase in the scale of business operations.
- Product differentiation means distinguishing products (goods or services) in some way from their competitors.
- Standardisation involves making homogeneous products and is usually a high-volume, low-cost approach to making goods or producing services.
- Sources of differentiation in goods include:
  - varying the actual product features
  - varying product quality
  - varying any augmented features.
- Sources of differentiation in services include:
  - varying the amount of time spent on a service
  - varying the level of expertise brought to a service
  - varying the qualifications and experience of the service provider
  - varying the quality of materials/technology used in service delivery.
- For both goods and services, differentiation can be created from cross branding or strategic alliances.

EXERCISE 1.2 REVISION

1 **What** does strategic mean?

2 **Demonstrate** how an operations decision can affect each key business function.

studyon

Syllabus area 1
Topic 1
Concept 1

Strategic role of operations management
Summary screen and practice questions

3 **Distinguish** between a profit centre and a cost centre.
4 **List** the five main sources of operational costs in business.
5 **How** do businesses realise cost leadership? Provide two examples to support your claims.
6 **Distinguish** between economies of scale and cost leadership. **Assess** the importance of both for business efficiency.
7 **Classify** the following as either goods or a service, justifying your choice:
   - the work performed by an IT specialist
   - an accountant's advice
   - a stove
   - an airline ticket
   - a bottle of water
   - a handbag
   - a T-shirt
   - time spent learning mathematics with a tutor
   - a ticket to an Ed Sheeran concert.
8 **Define** the term 'product differentiation'.
9 **Describe** the difference between goods and services with reference to five features of each.
10 **Compare** how differentiation varies between goods and services.

EXERCISE 1.2 EXTENSION

1 Research and **analyse** the difference between standardisation and customisation and detail two benefits of each.
2 With references to products and brands, **evaluate** how cost leadership can provide customers with choice.
3 Businesses compete on cost and on differentiation (delivering quality products for the same price as competitors or delivering products faster than competitors). Match the following business activities with the intended outcome.

Business activity	Outcome
'Tailor' products to customers . . .	to compete on cost
Eliminate waste . . .	to compete on quality
Use automated production equipment . . .	to compete on speed of delivery
Strictly comply with design specifications . . .	to compete on cost
Respond quickly to changes in demand . . .	to compete on quality

1.3 Goods and/or services in different industries

The operations function within any business is shaped by the range and types of goods and services that are produced. Management of operations will differ for producing goods and producing services.

1.3.1 Goods in different industries

Operations decisions will vary for goods depending on whether they are **standardised goods** or **customised goods**. Standardised goods are those that are mass produced, usually on an assembly line. Standardised goods are uniform in quality and meet a predetermined level of quality. Customised goods are those that are varied according to the needs of customers. These goods are produced with a market focus rather than a production focus. The layout of operational processes

BizWORD

Standardised goods *are those that are mass produced, usually on an assembly line. Standardised goods are uniform in quality and meet a predetermined level of quality. These are generally produced with a production focus.*

Customised goods *are those that are varied according to the needs of customers. These goods are produced with a market focus rather than a production focus.*

BizFACT

The customisation of goods can be seen in the production of music and the shift away from CDs to the use of streamed music services such as Pandora, Apple Music, Tidal and Spotify. Using these online applications, customers can pay for and download the songs, musical genre and playlists they want. This is different to the purchase of a CD (or even vinyl records) where customers may not want some of the songs on a fixed album or playlist. Music streaming services allow customers to create their own playlists. From a business perspective such services are very lucrative as streaming services are subscription-based, incurring a monthly fee from patrons.

will vary depending on whether goods produced are undifferentiated or not. The choice of the process selection is strategic as it requires a high degree of cross-functional interaction and coordination. This means all four key business functions need to work together to achieve the operations outcome.

Goods may also be broadly classified as either perishable or non-perishable. The grocery sector is dominated by perishable goods (foods), whereas household and business goods are generally non-perishable. This means that operational processes will vary between sectors that produce perishable goods and those that produce non-perishable goods.

Perishable goods and operations processes

Operations processes will need to integrate the following factors:

- high standards of quality, safety and cleanliness in all operating processes
- very short lead times and distribution that is as quick and effective as possible
- appropriate and robust packaging and cold storage processes both through production and distribution.



FIGURE 1.7 Perishable goods have only a short life span as they are consumed quickly. They are relatively inexpensive and bought on a regular basis. The operational processes will reflect these characteristics.

Non-perishable goods and operations processes

Non-perishable goods are inherently more durable than perishable goods and therefore the issues of quality and inventory management arise for the operations function. Operations processes will need to integrate the following factors:

- manage all aspects of quality in the process, from sourcing through to production and distribution
- implement effective inventory management strategies and be highly responsive to market demand in order not to over produce.

Non-perishable goods may be found in many different industries. In the manufacturing sector there are motor vehicles, electrical appliances and audio-visual

products, computer-based technologies, clothing, footwear, household goods such as furniture and bedding, kitchen items, tools and so on. Although the variety of goods produced in different industries is huge, many of the operations processes are similar regardless of industry. Technology, however, can be industry-specific.

Intermediate goods

A feature of production processes is that sometimes goods may be processed more than once. This means that goods completed, having gone through one set of operations processes, may then become inputs into further processing. This is demonstrated in the following example: a manufacturer converts steel into tiny screws. These are finished goods for that manufacturer. These screws are then used in the manufacture of electronics goods as essential components. This process is shown in figure 1.8.

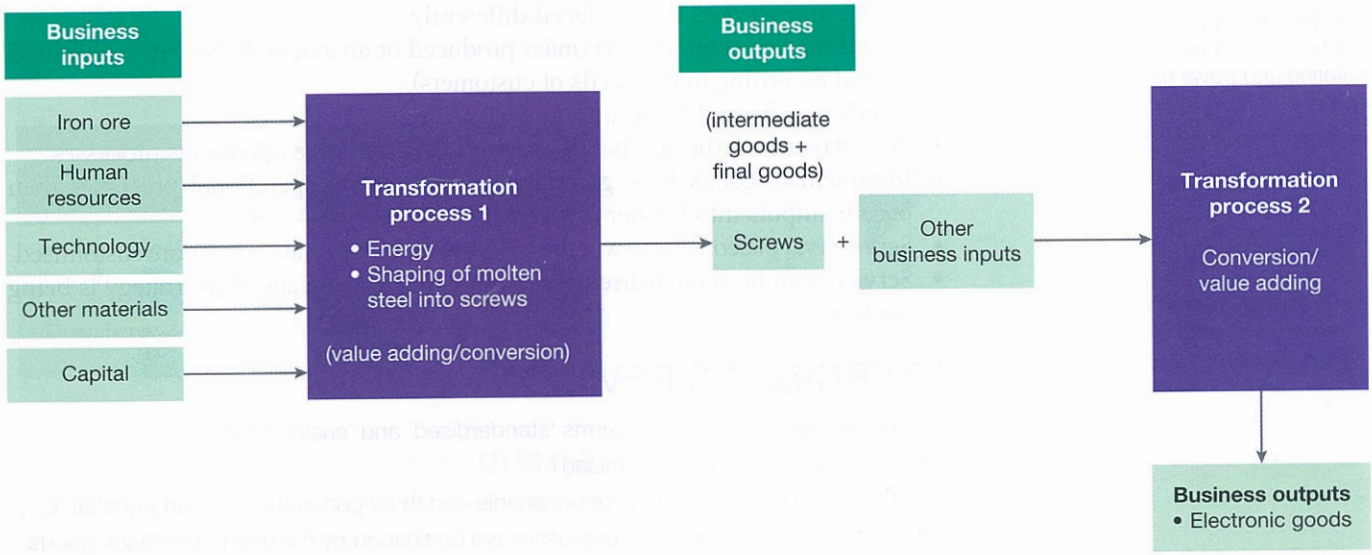


FIGURE 1.8 Intermediate and final goods processing

1.3.2 Services in different industries

As with goods, services can be both standardised and customised. The fast-food industry is an industry that aims to standardise the service. This differs from industries that are characterised by professionally educated and trained people. Accounting services, dental surgeries, medical services, legal services and so on are generally customised, unless the nature of the request from a client is standard. Thus, for example, most people visiting a general practitioner (GP) may receive a standard service, whereas a person visiting a medical specialist is highly likely to receive a customised service. Similarly, a person buying a house may receive standardised conveyancing services from a solicitor, whereas a person facing criminal charges will need legal assistance that is highly customised for their particular circumstances.

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Syllabus area 1
Topic 1
Concept 2
Goods and services
Summary screen and practice questions

Cost leadership and standardised products (goods and services)

When a product is standardised then costs associated with the production of the product can be minimised. This is clear with respect to goods. As stated earlier, standardised goods can be mass produced without variation and economies of scale can be achieved. However, it is also true of service delivery.

When a business offers a service, then it can bring a cost leadership to the service by standardising how that service is performed. This can be seen in the quick service meal industry (also called 'fast-food' industry). When a person enters a fast-food restaurant then they are subject to highly standardised processes in terms

of order taking and customer service. People delivering the service are trained so that they know exactly what to say and how to say it. This approach to services, where a standardised approach is created, is also evidenced in call centre work and other work where administrative processes are routine.

Self-service

Self-service means encouraging the customers to take the initiative to help themselves. Some industries seek to encourage self-service. Thus, the financial services sector and the travel industry encourage people to make their own transactions online. In this way, businesses can concentrate on customisation when a person cannot help themselves. However, an issue with self-service online is that of **drip pricing**.

SUMMARY

- Goods and services are produced differently.
- Goods may be standardised (mass produced or an assembly line) or customised (varied according to the needs of customers).
- Goods may be perishable or non-perishable.
- The character of the goods will shape the nature of the operations processes.
- Intermediate goods have gone through one set of operational processes then become inputs into further processing.
- Services vary according to whether they are highly specialised or more customised.
- Services can be standardised and in so doing a cost leadership strategy is being applied.

EXERCISE 1.3 REVISION

1 **Distinguish** between the terms 'standardised' and 'customised'.
2 **How** may goods be customised?
3 **Identify** three goods that are perishable and three goods that are non-perishable.
4 **Describe** how operations processes will be shaped by the need to produce goods that are perishable.
5 **Outline** the role of intermediate goods in the production of other goods and the provision of services.
6 **State** how services can be both standardised and customised.

EXERCISE 1.3 EXTENSION

1 **Compare** and **contrast** the operations of a manufacturer and a service business.
2 With reference to an example, **assess** whether services can ever really be totally standardised.
3 **Evaluate** the effect of cost leadership on service provision and state whether it reduces the service level provided.

BizWORD

Self-service *means encouraging the customers to take the initiative to help themselves.*

Drip pricing *means that a business advertises one price but in the process of a customer purchasing the service numerous additional charges and costs are added. The effect is that the final price can be much higher than the price advertised. Drip pricing has been an issue in relation to airline ticketing and travel products sold online.*

BizFACT

A business may be large enough to operate each of the key function areas. Alternatively, a business may choose to perform only one or two of the functions in which it is most competent, and hire the services of other businesses to perform the other functional areas. This is seen in the example of Colin's Cafe, a medium sized shopping centre coffee shop. Managers of this business decided to focus on and specialise in coffee retailing and coffee making. The business hires other businesses to do the accounts, to assist with finding skilled employees and to undertake marketing. The use of external providers in this way is known as outsourcing.

BizWORD

Interdependence *refers to the mutual dependence that the key business functions have on one another.*

1.4 Interdependence with other key business functions

Figure 1.9 shows the range of functions that a business may have. Although a business can separate the key business functions into departments that perform their distinct roles, the functions are interdependent — each relies on the others to perform effectively. Another term for interdependent is cross-coordination.

Interdependence refers to the mutual dependence that the key business functions have on one another. This means that the various business functions work best when they work together. A soccer team might have highly specialised players, for instance a brilliant left wing, a superb fullback and a dynamic goalkeeper. However, despite their individual brilliance, a side will usually win when all players contribute to the game, each working with the others in the team, passing, communicating and

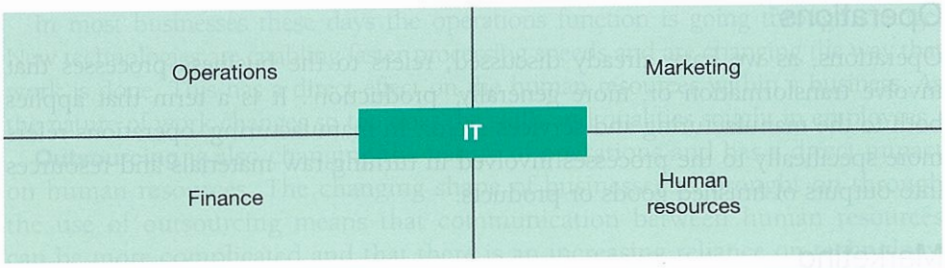


FIGURE 1.9 The range of typical business functions

playing for the same victory. In the same way, each section of the business may perform its specialised function extremely competently, but if together they do not work as a 'team' and aim for the same business goals, the business is not likely to achieve its objectives. Interdependence occurs when each key business function area is committed to the same business goals as the other key areas and they each work in a coordinated and collaborative way to achieve these goals as shown in figure 1.10.

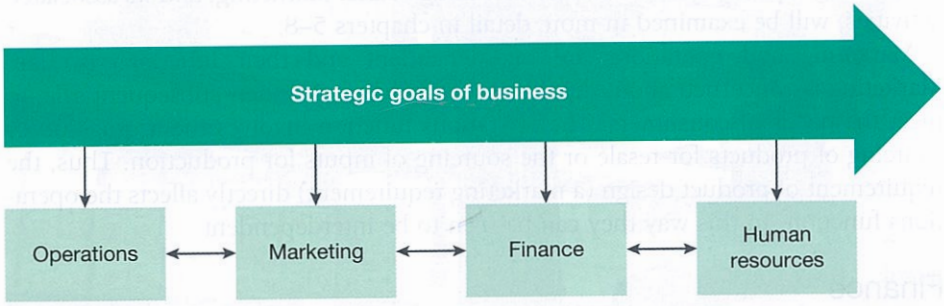


FIGURE 1.10 Interdependence and cross-coordination of business functions to achieve strategic goals

1.4.1 Tasks within the key business functions

In most businesses, closely related tasks are grouped together. Sales and marketing are grouped, finance and administration are grouped, and operations and research and development (R&D) are grouped. Consequently, the range of functions is generally reduced to four main functions as shown in figure 1.11.

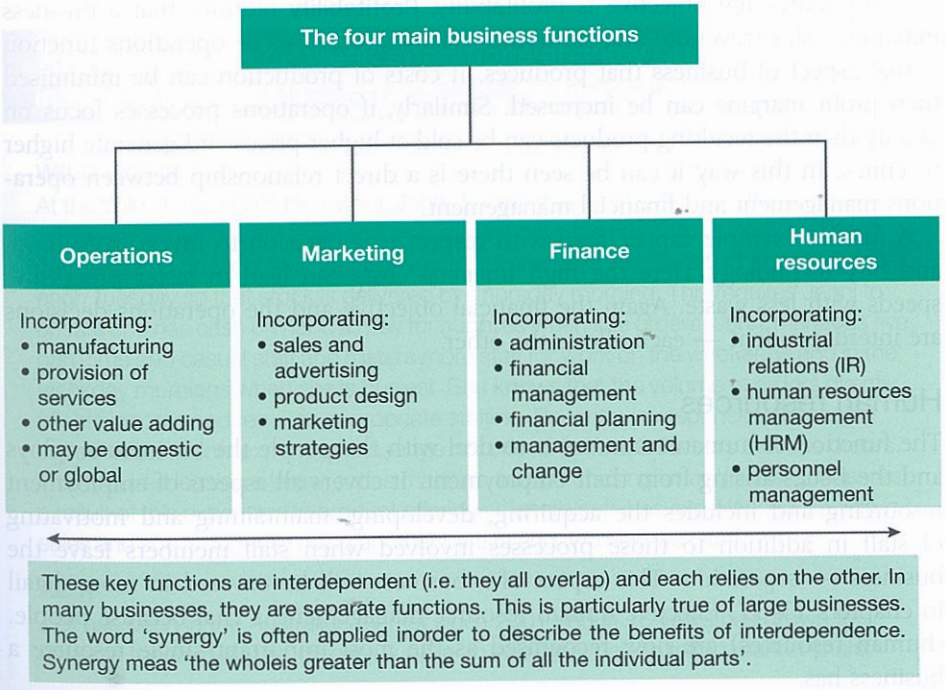


FIGURE 1.11 These key functions are interdependent.

BizFACT

Information technologies or 'IT' is sometimes a discrete department within a business. However, the activities of the IT section affect each key area of business as technology is pervasive through a business enterprise. Operations uses computer-based technology in planning and processing, scheduling, inventory management, quality management and all other aspects and activities. Marketing uses IT software to assess market trends, design products, design communications, create visual stimulus and so forth. Finance uses technology to record transactions and summarise trading into reports that can then be assessed. Finance also uses mathematical modelling to predict and evaluate.

Operations

Operations, as we have already discussed, refers to the business processes that involve transformation or, more generally, 'production'. It is a term that applies both to the manufacturing and services sector. In manufacturing, operations refers more specifically to the processes involved in turning raw materials and resources into outputs of finished goods or products.

Marketing

Marketing is about meeting the needs and wants of consumers through provision of products (both goods and services) at prices that the market is prepared to pay. Marketing is a highly specialised field of business that looks at all aspects of buying and selling, including the psychological processes that people go through when thinking about purchases. From the analysis of why people buy, to pricing, product development, promotion and distribution, marketers attempt to maximise the earning capacity of their businesses through sales. Marketing, and its associated activities, will be examined in more detail in chapters 5–8.

Marketing and operations are interdependent and their functions overlap. Marketing is concerned about the design of products, and their subsequent sale, to meet the needs of consumers. The operations function involves the acquisition or sourcing of products for resale or the sourcing of inputs for production. Thus, the requirement of product design (a marketing requirement) directly affects the operations function. In this way they can be seen to be interdependent.

Finance

This is the function that is concerned with recording and summarising financial transactions into a series of reports that can be easily interpreted. Reports such as income statements (also called revenue or profit and loss statements), which determine the amount of money the business has earned after its expenses have been paid, are very useful to managers and other stakeholders. Other key reports include balance sheets and budgets. These reports provide crucial information to decision makers both within and outside of the business. Finance and its associated activities will be discussed more fully in chapters 9–12.

BizWORD

Profitability *means the excess of revenue or income over expenses or costs.*

A key marketing objective is profitability. **Profitability** requires that a business maximise sales (revenue) and minimise costs (expenses). The operations function is that aspect of business that produces. If costs of production can be minimised then profit margins can be increased. Similarly, if operations processes focus on quality then the resulting products can be sold at higher prices and generate higher revenues. In this way it can be seen there is a direct relationship between operations management and financial management.

A further example can be seen with respect to a decision to invest in facilities and buy technology. Here the high financial costs can lead to faster processing speeds with less waste. Again the financial objective and the operations decisions are interdependent — each affects the other.

Human resources

The function of human resources is to deal with the people the business employs and the issues arising from their employment. It covers all aspects of employment resourcing and includes the acquiring, developing, maintaining and motivating of staff in addition to those processes involved when staff members leave the business — separation. This aspect of a business will be covered in more detail in chapters 13–17. Effective human resource management is vital because people. (human resources) are now recognised as the most important single resource a business has.

In most businesses these days the operations function is going through change. New technologies are enabling faster processing speeds and are changing the way that work is done. This has a direct effect on the human resources within a business. As the nature of work changes so too does the skills and qualities sought in employees.

Outsourcing is also changing the nature of operations and has a direct impact on human resources. The changing shape of businesses as brought on through the use of outsourcing means that communication between human resources can be more complicated and that there is an increasing reliance on technology.

The operations decision to outsource and to acquire technology directly shapes the nature of the workplace and the skills and qualities required of the human resources. In this way the key functions are interdependent.

BizWORD

Outsourcing *or contracting out business functions involves the use of third-party specialist businesses, for example, recruitment firms. It aims to take advantage of the specialist skills provided by them and to achieve a reduction in labour costs.*



FIGURE 1.12 Successful businesses recognise that they rely on the quality of their employees to achieve their goals of profit maximisation, growth and increased market share. People are the business's most valuable resource, so it is important to take care to recruit and maintain the best people.

1.4.2 The relationship between operations and the other key business functions

The relationship between operations and key business functions in two businesses

WILD HORSES CAFÉ

At the Wild Horses Café the owner, Jenni, knows that most sales of coffee are made in the morning and early afternoon. Her busiest days are Friday to Sunday and her café is closed on Mondays. Jenni ensures that she pays suppliers for her weekly order each Tuesday so that stock is delivered by Thursday morning. This requires Jenni to ensure she has cash on hand to pay for supplies when she orders. Jenni manages five part-time and casual staff and rosters more staff for work on the weekends and in the weekday mornings when she is busiest. She knows that the volume of orders directly affects income and requires appropriate staffing. Recently, in response to changing coffee tastes, Jenni expanded the range of coffee beans and flavours that she orders. This required leasing a larger coffee machine and purchasing an additional grinder. As a result of this expansion in product offerings, Jenni's café has experienced a surge in sales and she is currently hiring another barista and two new waitstaff.

ALDI

Aldi has been in the Australian market since 2001 and in 16 years has grown to become the third largest grocery supplier in Australia, having taken market share

SNAPSHOT



'. . . the volume of orders directly affects income and requires appropriate staffing.'

from Coles and Woolworths. Aldi operations was carefully planned as the managers knew that strategic growth would take about ten years. The long-term growth strategy meant that Aldi had to invest significant amounts of finance and capital into setting up supply lines and building warehouses to assist supplying the stores with both the perishable and durable goods it sells.

Aldi has attracted loyal customers through its 'special buys' promotions. These promotions involve selling household items at below cost twice a week. Aldi needs to source this stock and have it ready for sale at each of its nearly 500 stores nationwide. The operations function has to work closely with marketing and finance in sourcing what customers desire at a price they deem attractive. Aldi continues to grow rapidly despite having only 1450 product lines for sale. Coles and Woolworths are losing market share to Aldi even though each of these grocery brands has tens of thousands of consumer goods for sale in-store. The interdependence of key business functions, understood by smart managers (sourced by human resources) continues to build Aldi's brand in Australia.

SNAPSHOT QUESTIONS

1. **List** the four key business functions.
2. **How** does Jenni manage the interdependence of key business functions at Wild Horses Café?
3. **Explain** the importance of understanding interdependence between the key business functions to the success of Jenni's café.
4. **What** role has strategy played in the growth of Aldi in Australia?
5. **Discuss** the advantages of understanding interdependence of the key business functions to the growth of Aldi in Australia.

SUMMARY

- The range of typical business functions is operations, marketing, finance and human resources.
- Interdependence refers to the mutual dependence that the key functions have on one another. This means that the various business functions work best when they work together.
- In most businesses, closely related tasks are grouped together — for example, sales and marketing, finance and administration, and operations and research and development.
- Operations refers to the business processes that involve transformation or, more generally, 'production'.
- Marketing is about meeting the needs and wants of consumers through provision of products (both goods and services) at prices that the market is prepared to pay.
- Reports such as income statements, which determine the amount of money the business has earned after its expenses have been paid, are very useful to managers and other stakeholders.
- The function of human resources is to deal with the people the business employs and the issues arising from their employment.

EXERCISE 1.4 REVISION

1 **What** is meant by the term 'interdependence'?
2 **List** the four key functions of a business.
3 **Explain** how interdependence occurs between the key business functions.
4 **State** the benefits of interdependence.
5 **What** is outsourcing?
6 **Why** do businesses use outsourcing?
7 **Summarise** the role of the (a) marketing, (b) finance, (c) human resources functions in a business.

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Syllabus area 1
Topic 1
Concept 3

Goods and services in different industries
Summary screen and practice questions

on Resources

- **Digital doc:** Chapter summary (doc-24803)
- **Interactivity:** Chapter crossword (int-7149)
- **Interactivity:** Multiple choice quiz (int-7150)

EXERCISE 1.4 EXTENSION

1 **Evaluate** the role of business strategy and its importance to the coordination of the key business functions. In your answer **discuss** the concept of synergy.

2 **Assess** the role of IT across the range of business activities.

3 With reference to businesses that you are familiar with, **describe** and **analyse** how the various business functions overlap and are interdependent. Refer to examples to support your answer.

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