

L03 Understand product development

This learning outcome considers how businesses develop their products. Every product has a unique lifecycle and you will look at the various stages each product goes through.

Teaching content

In this learning outcome you will cover:

- 3.1 The product lifecycle
- 3.2 Extension strategies for products in the product lifecycle and the appropriateness of each
- 3.3 How to create product differentiation
- 3.4 The impact of external factors on product development

3.1 The product lifecycle

All products have a unique **product lifecycle**. However, there are five main stages that usually occur in the lifecycle of a product, as shown in Figure 1.12.

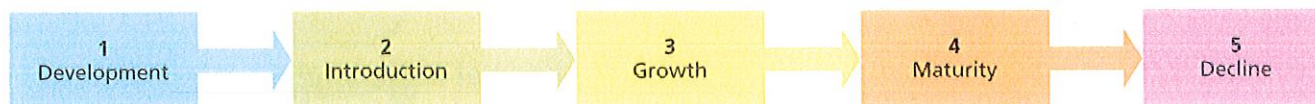


Figure 1.12 Product lifecycle

The lifecycle shows how a product begins with its development and launch followed (usually) by a period of sales until, following its decline, it is eventually removed from sale. Some products naturally decline in their popularity while some fail to succeed after launch; a few products will continue to grow and survive in the market for many years.

Table 1.2 Product lifecycle

Lifecycle stage	Description
1 Development	The business is researching and developing the product. Product testing and trials take place. The product is not yet available for sale.
2 Introduction	The business launches the new product on the open market and makes it available for sale. During this stage, the business advertises the product and uses promotions to encourage sales.
3 Growth	Customers are now familiar with the product and sales are increasing. At this stage of the lifecycle, sales are increasing at their fastest rate.
4 Maturity	During this stage, sales of the product have reached their highest. It is likely that the number of new customers is reducing and sales growth is limited. Other business organisations may have entered the market to compete or the number of similar products available may mean the market is saturated.
5 Decline	In the decline phase, sales of the product will begin to fall. The business will not actively advertise the product and will eventually remove the product from sale.

Getting started

In pairs, make a list of all of the new features that have been added to cars over the last few years.

Key term

Product lifecycle Shows the journey of a product from its development and launch to its eventual removal from sale

A product lifecycle is usually represented on a graph like the one in Figure 1.13.

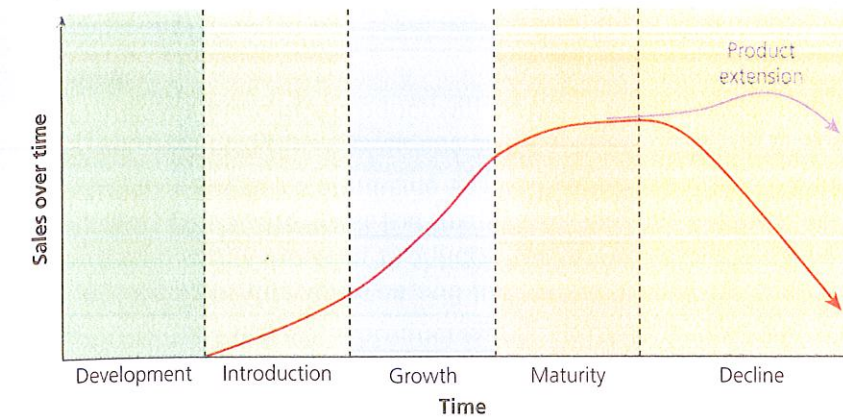


Figure 1.13 Product lifecycle graph

Extension strategies

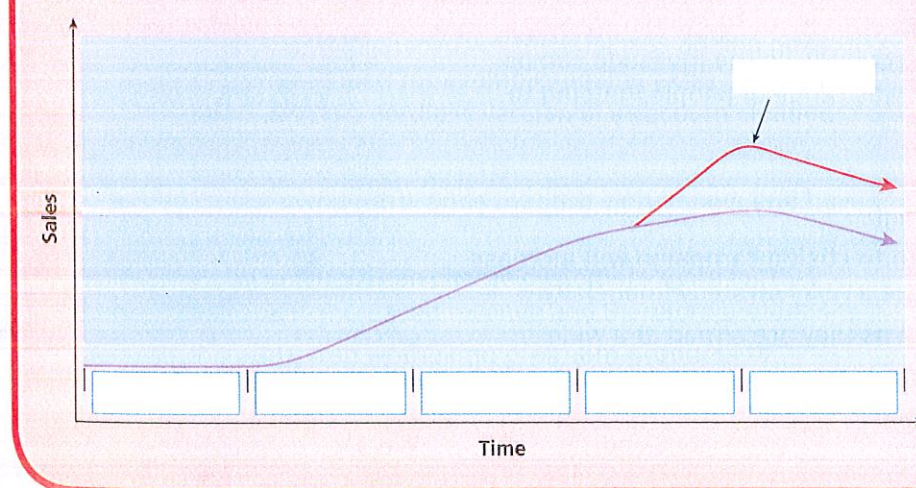
As a product reaches the end of the maturity stage of the product lifecycle, a business may try to extend its life by incorporating new **extension strategies**, for example, designing a new model, offering new flavours/colours or changing the packaging. This may encourage new customers to purchase the product and existing customers to continue to purchase. You will look at different types of extension strategy in the next section.

Key term

Extension strategies Actions a business can take to extend the life of a product and increase sales

Activity

Copy out the product lifestyle diagram below and fill in the labels



Stretch activity

- 1 Identify the stages of a product lifecycle for a mobile phone.
- 2 In pairs, discuss how long each of the different stages may be and when the manufacturer is likely to introduce a new model.

3.2 Extension strategies for products in the product lifecycle and the appropriateness of each

It is often cheaper for a business to make changes to an existing product than to develop a brand-new product for sale. With this in mind, businesses do all they can to extend the growth and maturity phases of successful products.

There are a number of different strategies that can be used to extend the life of a product.

Advertising

A business may undertake a new advertising campaign for its product.

Benefits

- A successful advertising campaign can be an effective way of attracting new customers, as well as reminding existing customers of how good the product is.
- Advertising can be used to draw attention to new 'added value' features for an existing product. For example, porridge is popular but is viewed as time-consuming to make. This has led to the introduction of microwaveable porridge pots that consumers can prepare quickly at home or at work as the pot has a pre-measured amount and only needs boiling water.
- Effective advertising has a wide coverage meaning that a lot of different people will see the advertisements.
- The business will have full control of the advertisements, so they can ensure the correct message is portrayed.
- Advertisements are repeated regularly, so the message can be effectively communicated to a wide range of people, helping to build brand loyalty.

Disadvantages

- Advertising costs can be very high.
- There is no guarantee that the advertising campaign will increase sales of the product, so it may be a risky strategy financially.
- Advertisements are impersonal as they are aimed at a wide range of people.
- Advertisements are a one-way form of communication and lack flexibility. They cannot be adjusted to take different views into account and do not allow customers to ask questions.



Figure 1.14 Quaker Oat So Simple porridge pots are advertised as a quick and easy version of traditional porridge

Price changes

A business organisation may decide to increase or reduce the price of its product.

Benefits

- Raising the price of a product will increase revenue and therefore make more profit for a business organisation.
- Increasing the price alongside a re-branding of the product may allow a business to enter the luxury market, where people are prepared to pay more for products. This means the business will increase its profits when selling the same number of goods.
- Reducing the price of a product will often make it more attractive to both new and existing customers.

Disadvantages

- An increase in product price may mean that customers will buy their products from another retailer, if they feel that the increased price is not in line with that charged by competitors.
- An increase in product price is likely to mean that customers will expect a better quality product. If this is not the case, a business may see a reduction in sales.
- Reducing the price of a product too much can devalue a product and make it seem worthless. This would mean customers would be unwilling to purchase the product.
- A cut in the price of an existing product will reduce the amount of profit the business makes per unit. It would therefore need to sell extra products in order to cover the loss in revenue.

Adding value

This is a popular strategy which involves the business adding new features to an existing product; for example, adding extra memory to a mobile phone or creating a cordless version of a vacuum cleaner.

Benefits

- This strategy works well for brands that are well known and have been popular for many years.
- By adding value, a business can charge customers more for their products. This leads to increased revenue and therefore profitability.
- A business can add value by making premium products to differentiate itself from its competitors. This may help it attract new and additional customers.

Disadvantages

- Re-launching an existing product can be costly, requiring considerable financial investment in terms of research, piloting, trialling and then marketing the updated product.
- Adding value will not be successful if there is no demand for the original product. Before deciding to add value to an existing product, a business will often carry out research to check there is likely to still be demand for the product in the future.

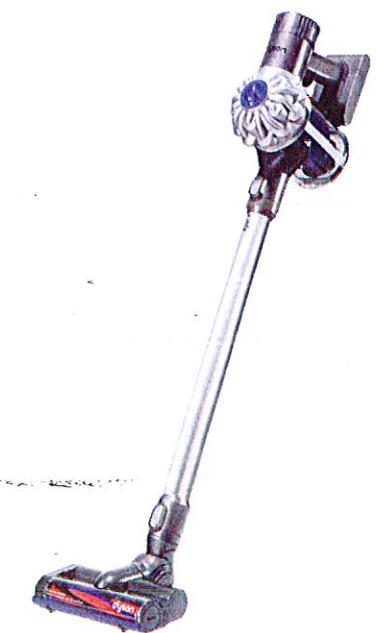


Figure 1.15 New cordless models of Dyson vacuum cleaners are an example of existing products with added value

Exploration of new markets

If a business is selling a product that has universal appeal but has yet to target a full range of customers, it could decide to sell its product in new markets. For example, a business that currently only sells its products in a particular region may decide to sell products throughout the country; a business that produces adult clothing may decide to introduce a children's range.

Benefits

- If a business can successfully tap into a new market, it may see its sales – and therefore profits – increase considerably.
- There is the possibility that by exploring new markets, the benefits gained will balance out the risks of current investment.
- By exploring new markets, an alternative is available when an existing market starts to decline.

Disadvantages

- This strategy may not be suitable for every product. Certain products may only be popular in certain geographic locations, for example, kilts may be popular in Scotland but will have a limited market in Wales.
- Exploration into new markets may need staff to have new skills – this could be expensive and increase costs.

New packaging

This can be a relatively cheap method of updating a product. A business will refresh a product's current packaging by changing the colours or logos, etc., in order to encourage customers to continue to purchase the product. Many companies change the packaging of their products by offering versions to tie in with particular themes, such as Christmas, Halloween or Easter, or by offering versions that tie-in with newly-released films.

Benefits

- If a business provides improved packaging, customers may perceive an increase in quality and therefore be prepared to pay a higher price.
- Newly-designed packaging may attract new customers and increase the number of sales.

Disadvantages

- Packaging design can be expensive and, depending on the type of product or service, may have a short life. For example, packaging introduced to coincide with a new film launch can only be used for a relatively short period of time.

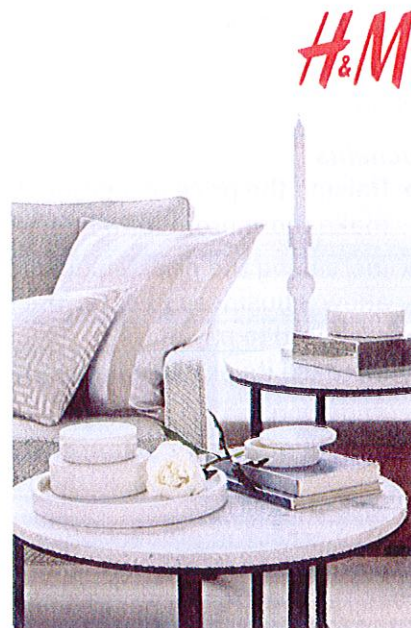


Figure 1.16 H&M have extended their brand by moving into homewares

Activity

The technology industry is known for the fast pace at which new and improved product versions are introduced.

Choose one type of product, such as a games console, computer or mobile phone, etc. Working in small groups, discuss the different extension strategies that have been used to extend the life of your chosen product.

Case study

Ryder Golf and Sports Equipment has developed a fitness band called 'Golf IT' that is worn by golfers to record how far they have walked around the golf course. In the last two years, the business has had very little sales growth and in the last six months, sales have started to decline.

Questions

- 1 Consider what extension strategies Ryder Golf and Sports Equipment could use to extend the life of the Golf IT.
- 2 Review the advantages and disadvantages of each of the strategies suggested.

3.3 How to create product differentiation

In order for a business to be successful, it must ensure that it differentiates its products or services by making sure they stand out from those of its rivals.

Establishing a strong brand image

One way of creating product differentiation is to establish a strong brand image. Business organisations create strong brand images in a number of ways. These will vary depending on the type of business, but may include sustained advertising campaigns, sponsorship of sports/music events and the importance of ensuring the availability of the product in many markets.

Many businesses, for example, McDonalds, have a very strong brand image – one that is instantly recognisable around the world. Customers know exactly what is sold by McDonalds and the company takes care to ensure its products remain the same no matter where in the world they are purchased.

Benefits

- The business name is enough to sell its goods or services without it needing to do anything else to make its product different from those of rivals.

Disadvantages

- The cost of developing a strong brand image can be extremely high. This may reduce profits if the strategy is unsuccessful.
- Developing a strong brand image takes a very long time. This is not a short-term strategy for a business.

Identifying a clear unique selling point (USP)

Many businesses develop a **unique selling point (USP)**. This is a product feature that separates the product from its competitors. There are a number of examples of products with identifiable USPs in the market today, for example:

- car performance – Audi (the slogan 'Innovation through technology')
- sports branding – Nike (the 'swoosh' and the slogan 'Just do it')
- design – Apple iPhone and iPod.

Advantages

- The name of the business sells the goods or services without it needing to make its products different from those of rivals.
- As with developing a strong brand image, identifying a clear USP takes a very long time. This is not a short-term strategy for a business.

Disadvantages

- The costs of developing a clear USP can be extremely high. However, once established, the USP should repay the costs that were initially incurred.

Improved offering

Sometimes a business decides it needs to differentiate itself further and will decide to make improvements to its current product offering. This might involve changing a products:

- location – this could be the location of a product in a particular store or the geographical location of where products are sold. For example, a supermarket may place a product at the end of an aisle facing customers as they enter the store, in order to attract their attention
- features and **functions** – adding extra features and functions to products and locations. For example, a number of fast food restaurants now offer drive-through facilities, table service or the option to order from an onscreen menu
- design and appearance – many stores have 'face lifts' to increase their appeal
- offer – a supermarket may add a café or pharmacy
- current selling price – to try to give an increased sense of perceived value, a business may reduce the selling price of its products and services.

Advantages

- It can be relatively easy and cheap to make small changes to the design and appearance of a product.

Key term

Unique selling point (USP)
The key features that make a product or service different to others in the market

Key term

Function The job which a product or service is designed to do

- Increasing the selling price can increase revenue and profitability, while reducing the price may lead to an increased sense of value for money and therefore, higher sales.
- Improving the offer of a business usually increases brand image and loyalty.

Disadvantages

- Changes to a product's location, features or functions may be expensive to implement.
- Market research would need to be undertaken before deciding to make changes, as the costs involved could reduce profits.

Design mix model

A number of businesses use a design mix model – this is a way of considering the variables that contribute to successful product design. These variables are:

- function – a product must be able to do the job for which it is designed
- cost – a product must be financially viable and cost effective to produce. This means using materials that are most appropriate to the product in terms of what it is required to do and ensuring appropriate manufacturing costs (known as **economic manufacture**)
- appearance – how a product looks and feels may be very important and is referred to as its **aesthetics**.

Figure 1.17 shows a traditional product design mix.

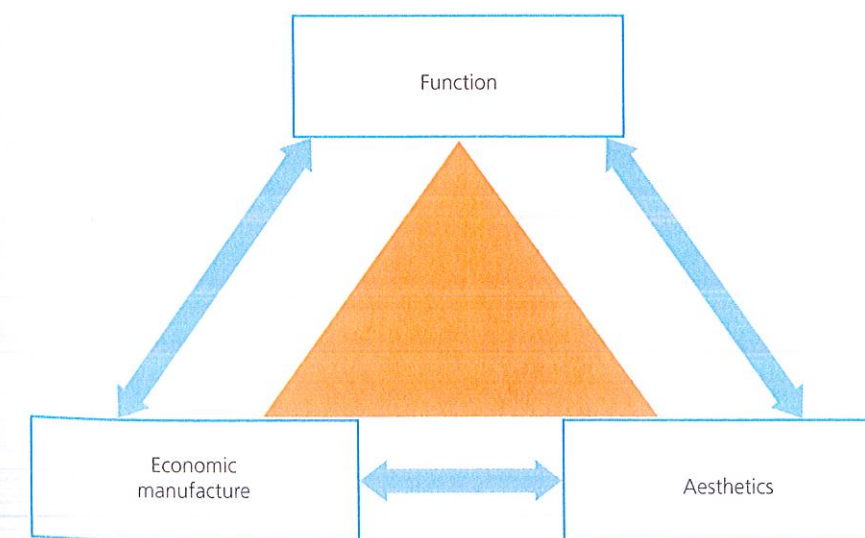


Figure 1.17 The design mix model

Activity

In recent years, competition between food retailers has greatly increased. In small groups, discuss how the supermarkets in your local area have adapted and improved their offering in order to compete with one another.

Key terms

Economic manufacture
Making sure the costs involved in producing a product are appropriate to that product and no money is wasted during the manufacturing process

Aesthetics How a product looks or feels

Different businesses will prioritise different areas of the design mix for a product, depending on the type of product they are producing and type of customer they are aiming at.

For example, Figure 1.18 shows how a washing machine manufacturer would focus on the function element of the design mix model (1 in the diagram), whereas a luxury handbag design company would focus on the aesthetics of the bags it designs (2 in the diagram).

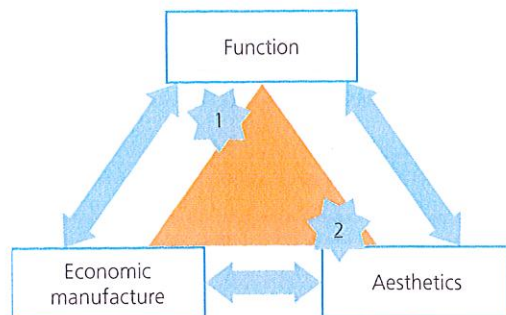


Figure 1.18 Placing products in the design mix

Activity

Copy the design mix model above. Place the following products where you think they belong in the design mix. Compare your decisions with another class member.

- 1 Rolls Royce car
- 2 McDonalds Happy Meal
- 3 Apple iPod
- 4 Computer desk
- 5 Gold watch
- 6 Supermarket value chicken
- 7 Underground train

Activity

The airline industry has changed rapidly in recent years, with varying levels of service and price being introduced to meet the needs of different customers. Low cost and budget airlines have had a big impact on the market, which was once dominated by large airlines such as British Airways, Virgin and United Airlines.

- 1 Discuss in small groups how different airlines differentiate themselves against their competitors. In your discussion consider brand image, USP, improving the offering and the design mix model.
- 2 Consider the advantages and disadvantages of each of the different ways used to differentiate an airline.

Each member of the group needs to think about how a chosen airline would meet their own particular needs.

3.4 The impact of external factors on product development

When developing any product, a business must consider those issues that will be outside of its control. These fall into three main categories – technological, economic and legal – as outlined below.

Technological developments

Technological developments occur all the time, so a new product that contains electronic components must be able to deal with advances in technology if it is to remain relevant. For example, many televisions are now advertised as being '4K ready' so that when this new technology becomes more widespread the televisions will still be relevant.

It is important to remember that technological issues may relate to either the business's products or to prospective consumers. For example, consumers often want to purchase the most up-to-date versions of a product. This is especially true where mobile phones or computer tablets are concerned as there is then very little demand for the previous models.

Businesses need to ensure their products incorporate all the latest features expected by the customer – carrying out customer research and then developing new features to meet these needs is likely to be costly. A business may need to invest in new machinery or factories to produce the new models as well as invest in training staff to manufacture and sell the new models. They may also need to sell off older stock at a much-reduced price that is now out of date and less appealing to customers.

Economic issues

No organisation exists in isolation – a business must take account of the current economic climate and adapt accordingly. The economic cycle in most developed countries is one of recession followed by growth, followed by boom followed by downturn followed by growth, and so on. Figure 1.19 provides an illustration of this economic cycle, which is referred to as the business cycle.

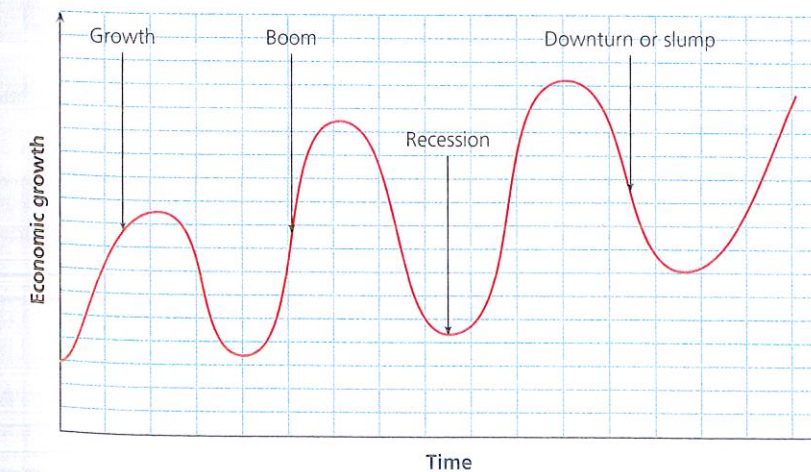


Figure 1.19 The business cycle

- During a downturn, businesses suffer from a decrease in sales and there is little or no demand for new products or services. A business is unlikely to develop new products during this time.
- During period of economic growth, customers have more money to spend and are likely to want to purchase new goods or services. Businesses will therefore develop and sell new products.
- During the boom period, customer spending is at its highest and businesses are likely to introduce and sell a wide range of new products.
- During a recession, customers have very little money to spend on luxury goods, so businesses will consider developing cheaper products or reducing the range of products they produce.

Legal issues

When developing any product, a business must comply with all current legislation, especially in relation to safety standards. Legislation is created by UK government or the European Union. A business is likely to be affected by product safety standards.

Product Safety Standards

These are the technical and legal requirements that are in place to ensure that products that are produced are safe for use and fit for purpose. The government produces guidance and legislation on the safety, design, packaging and insurance of products. For example, there are strict guidelines on the safe production and sale of fireworks.

Copyright and patents

Business organisations must ensure that they comply with laws relating to **copyright** and **patents**. Copyright protects ownership of original pieces of creative and intellectual work, such as music and books, whereas a patent protects new inventions from being used or produced by others. When developing a new product, a business could apply for a patent or copyright to ensure that its idea is not copied. However, the business must also ensure that it does not reproduce ideas belonging to others.

 **Key terms**

Copyright Provides legal ownership to original pieces of creative work

Patent Provides legal ownership of new inventions and prevents these being used or produced by others

Test your knowledge

- 1 Identify and describe the main stages of the product lifecycle.
- 2 Explain two extension strategies that could be used to extend the life of a product.
- 3 Define the term 'unique selling point'. Provide an example to illustrate your answer.
- 4 Explain how a business may use the design mix model.
- 5 Describe how each of the stages of the business cycle (recession, growth, boom and decline) may affect the success of a new product launch.

Activity

Choose a business with which you are familiar. How has your chosen business changed over the last few years to adapt to changes in the economic environment?