5.6 Production planning (HL)

Make or buy decisions

Businesses make decisions every day about how to produce their products. For example, sportswear retailers such as Nike, Adidas, Under Armour, Puma, Asics and Fila can decide whether to produce a product themselves (make a product inhouse), or whether to hire another company to produce the product on their behalf, which is known as outsourcing (subcontracting).

Factors affecting make or buy decisions

There are a variety of quantitative and qualitative factors that businesses consider when deciding whether to make or buy the products they sell. These are listed in **Table 1**.

Table 1. Quantitative and qualitative factors affecting make or buy decisions.

Quantitative factors	Qualitative factors
Total and average costs.	Quality management.
Defect rates.	Reputation and public relations.
Capacity utilisation.	Ethical implications (such as the working conditions in factories in other countries).
Productivity rates.	Availability of factors of production (such as skilled labour or access to raw materials).
Cost of logistics (such as shipping costs).	Changing demand.
Capital expenditure (such as the cost of building a factory or buying machinery).	Supply chain reliability and lead times.

Profitability.	Specialisation (such as access to specialist equipment and expertise).

The cost of making or buying is an important factor that a business will consider in the make or buy decision. Businesses can calculate how much it would cost to make the product inhouse and compare that to the cost of outsourcing production. When making these calculations, businesses must consider both the fixed costs and variable costs (Subtopic 3.3 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/the-big-picture-id-39300)).

In the context of a sportswear manufacturer, the fixed costs would include the cost of the factory, the machinery and expenses (overheads). The variable costs would include the materials used in the sportswear. Businesses are likely to outsource production to another producer if it costs them less than making the product themselves.

Cost to make

The cost to make (CTM) is the total cost of production if manufacturing is kept inhouse. The formula for cost to make is as follows:

Cost to make = (average variable costs x quantity) + fixed costs

Cost to buy

The cost to buy (CTB) is the total cost of subcontracting production to a supplier. The formula for cost to buy is:

Cost to buy = price x quantity

Figure 1. Deciding whether to make or buy can be a complex decision.

Credit: DNY59, Getty Images

Reasons to make

Weighing up the factors involved in the make or buy decision is complex. There are a number of reasons why a business would want to make, instead of buy, a product:

- **Quality and cost control through vertical integration.** If a business owns multiple (or all) stages of the supply chain, it can have more control over quality and costs. For example, a sustainable fashion producer might consider owning its own cotton farms if it wanted to ensure that regenerative agricultural practices – critical to its brand – were being used on the land.
- **Protecting intellectual property.** Production secrets and patents do not need to be shared with a third party. This is important because outsourcing increases the risk of copycat brands or fakes occurring, potentially damaging the sales and/or the brand image.
- **Meeting global and local responsibilities.** The business can ensure that it is meeting its local and global responsibilities to

people and planet (Section 1.3.4 (/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/ethical-objectives-and-corp-social-resp-csr-id-36520)). It can ensure healthy and fair working conditions for employees and robust environmental protection.

Figure 2. A sustainable fashion producer might consider owning its own cotton farms to ensure regenerative agricultural practices are used.

Credit: Oliver Strewe, Getty Images

For-profit social enterprises and non-profit social enterprises will likely weigh up the issues of quality and local/global responsibilities to the social foundation and planetary boundaries differently from a for-profit commercial enterprise. Remember that social enterprises are working to regenerate natural and human systems and distributing value more widely to stakeholders. This means that costs of production will be less important in make or buy decisions.

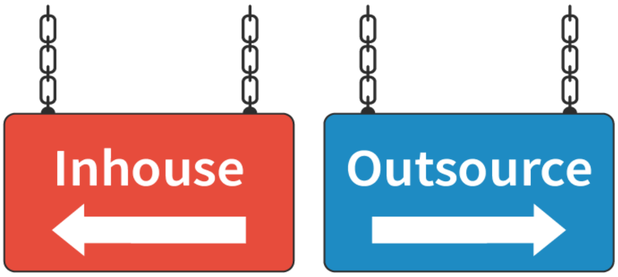

Figure 3. A business needs to decide whether to produce inhouse or to outsource.

Reasons to buy

There are, however, times when buying products from a subcontractor makes more sense for a business. These include:

- **Specialisation and expertise.** Sometimes a business simply does not have the expertise to make the product it wants to sell. In this case, it makes sense to outsource the work to a producer who does have the expertise.
- **Low costs due to economies of scale.** A business may be able to outsource the production to a subcontractor who can combine the work with other products in order to achieve economies of scale, thereby lowering costs of production.
- **Lower fixed costs.** The business may not want to invest in the large-scale capital, such as a factory, needed to produce the product, especially if it is unsure about its success. Outsourcing to a producer who already has production facilities makes more sense in this case.

Figure 4. Sometimes it costs less to outsource the production to a subcontractor who can combine the work with other products.

Credit: Westend61, Getty Images

International Mindedness

Globalisation has enabled many businesses to set up factories in countries with low-cost labour and weak environmental protections. However, some businesses are considering reshoring, as supply chains become less reliable, costs of production and transportation increase, and there is increased demand for locally produced products.

Activity

Learner profile: Inquirer
Approaches to learning: Research skills (information literacy)

Why might outsourcing result in lower quality?

- Research examples of companies that outsource production to other companies. You could, for example, look at a fashion brand you know and find out about their make or buy decisions. Use these supporting questions to help with your research:
  - What issues may have occurred as a result of outsourcing production?
  - Is the company considering bringing production back inhouse?

- Research what is meant by a ‘smart factory’. Find an example of a technology that could be used within a ‘smart factory’ and examine how it can:
    - reduce the number of defects
    - improve quality
    - lower costs
- Research your own school. Does the school subcontract any particular service? Are any online classes available, for example? What factors would your school have considered when making those make or buy decisions?