1.5 Growth and evolution

Internal and external economies and diseconomies of scale

Businesses that are able to produce goods and services at a lower average cost than their competitors have an advantage in the marketplace because they can earn larger profits. They may also be able to lower prices for consumers while maintaining profits, which will enable them to increase their market share relative to competitors.

One of the factors that can impact the costs of a business is the size of its operations. In general, businesses producing a higher output will be able to produce a given good or service at a lower average cost. Think about making biscuits. A modern food processing plant producing millions of biscuits per year can produce biscuits at a lower cost per biscuit than you can at home in your kitchen. Economists use the term economies of scale to refer to this situation.

Credit: Anjelika Gretskaia, Getty Images

Credit: sykono, Getty Images

Figure 1. Businesses with a larger output can lower their average costs of production compared to smaller businesses.

Economies of scale

Economy of scale refers to a situation where the unit (average) cost of production decreases as the level of output increases. Economies of scale can be either internal or external.

Internal economies of scale

Internal economies of scale are cost reductions that can be achieved inside the company when it expands its output. They may occur in different ways:

Purchasing economies of scale occur when a business buys inputs at a lower cost by purchasing larger amounts. For example, a food company buying thousands of eggs every week will be able to negotiate lower prices from suppliers compared to a small company buying a few dozen eggs at a time. This is also known as 'buying in bulk.'

Credit: jayk7, Getty Images

Credit: fotogaby, Getty Images

Figure 2. Purchasing large quantities of paper will reduce unit costs compared to buying small quantities of paper.

Marketing economies of scale occur when the cost of a marketing campaign is spread over a larger quantity of output, thus lowering the average cost of the campaign. It can be expensive to develop a marketing campaign. Also, larger corporations may be able to negotiate better rates for using a promotion platform if they buy more. Smaller firms may not be able to afford television advertising, for example, where costs are very high for a 30-second advertisement.

Managerial economies of scale occur when the cost of hiring a manager is spread over a larger output. Lower costs of production also occur because businesses are able to hire specialists who are more efficient at completing their work. For example, it is unlikely that a sole trader responsible for the day-to-day operations of a business will have extensive expertise in each of the business functions. As the business grows, the sole trader may be replaced by a CEO who leads a team of specialists in human resources, finance, marketing and operations. Their combined expertise should, in theory, improve efficiency and decrease average unit costs.

Technical economies of scale occur when a large company is able to invest in equipment that makes the business more efficient and results in a lower average cost of production. An industrial mixer, for example, will reduce costs compared to mixing ingredients using a smaller, less sophisticated tool. However, this large investment in equipment may not be profitable until production reaches a certain level. As output increases, the cost of equipment can be spread over a higher quantity of output. The use of equipment allows production to become more automated and efficient, lowering unit costs.

Figure 3. A large mixer is expensive to buy, but can help a baker produce more bread at a lower unit cost.

Credit: maki_shmaki, Getty Images

Financial economies of scale occur when a large business takes out a larger loan for investment. Larger loans often have a lower interest rate. This means they cost less to repay, especially when the costs are spread over larger output. You will consider these issues further when you study sources of finance in **Subtopic 3.2**.

External economies of scale

External economies of scale are cost-savings that occur due to external factors in the region or industry that are not under the control of the business. These may be due to the following:

- **Innovation:** This is when an industry becomes significant for society. Innovation allows businesses to collaborate with universities or other research institutions in order to improve and create new products, and at the same time reduce their own research costs.
- **Infrastructure:** A good transportation network supports quick delivery of products and helps workers arrive at work on time, increasing productivity.
- **Specialisation:** This takes place when companies, suppliers, and workers start to focus on a particular industry due to its size. As the number of companies in an industry increases, it becomes more profitable for suppliers to focus on supplying customers within that industry. It also becomes easier for specialised workers to find a job in their field because of the availability of jobs in the industry. This in turn makes it easier for companies to hire specialised workers, which can reduce costs associated with recruiting and training.

Exam tip

When suggesting how a business may achieve economies of scale, always consider the type of organisation and the industry.

Diseconomies of scale

Companies, or some of their operations, sometimes get so big that they become less efficient, leading to an increase in unit costs as output increases. Such cases are called diseconomies of scale. There are a number of internal and external factors that cause diseconomies of scale.

Internal diseconomies of scale

An internal diseconomy of scale is an increase in average unit cost, usually explained by the difficulty of managing internally large operations. Some examples of internal situations which can produce an increase in costs are:

- **Managerial issues:** It can be difficult to efficiently run an enterprise once it gets too big. As we learned in subtopic 1.3 (/study/app/y12-business-management-a-sl-may-2024/sid-352-cid-174703/book/the-big-picture-id-36846), a strong vision and mission statement is required to keep the entire organisation working towards common objectives. Nonetheless, it is challenging for a single leader to set a direction and be followed by thousands of employees. There may even be rivalries between the different divisions of a large firm. A lack of coordination and cooperation can create inefficiencies and increase costs.
- **Increase in size of the workforce:** It can be challenging to control a large workforce. The growing size of the company may necessitate the creation of a complicated organisational structure, with many levels of hierarchy. A large number of managers between the CEO and employees can increase the expenses associated with salaries and wages. There could be overcrowding. Jobs in large firms may become so specialised that employees no longer see how their role fits into the company's operations as a whole. They may grow to feel alienated from decision-making.
- **Communication:** As organisations grow and become more complex, there may be several layers of management between the CEO and employees, making efficient communication more difficult. We will explore these issues in **Subtopic 2.6**. Communication challenges are amplified further when operations are spread globally.

Case study

Walmart was founded in 1962, as a discount retailer. Sam Walton, its founder, built his business based on the notion that low prices for customers would generate higher sales revenues. The company today operates more than 8 500 stores, with more than two million employees, and serves more than 200 million customers around the world.

Walmart's main strategy is to offer the lowest retail prices among its competitors and avoid the use of promotion. This strategy is supported by rapid expansion and strategic geographical locations. Ninety percent of the US population lives within 24 km of a Walmart store. Sophisticated use of technology allows the company to keep a dynamic inventory, reducing the working capital necessary and preventing excess stock. Walmart's large size gives it monopsony power in negotiations with some suppliers. This means it can put pressure on suppliers to lower the cost of the products that Walmart buys for its stores.

While Walmart's negotiating power with suppliers can mean lower prices for consumers, it puts enormous pressure on suppliers, who may have small profit margins. Because of Walmart's large size in many markets, these suppliers may have no other choice but to sell to the company. In addition, the very low prices for Walmart's products may cause other smaller retailers to go out of business. This in turn often leaves consumers with little choice but to buy from the large retailer. Thus, while Everyday Low Prices can be positive for consumers and economies, there are a number of ethical concerns associated with the strategy.

Questions

1. Define economy of scale. [2 marks]
2. Explain **two** economies of scale which Walmart experiences as a large firm. [4 marks]
3. Outline **one** ethical concern with Walmart's Everyday Low Prices strategy. [2 marks]

External diseconomies of scale

External diseconomies of scale refer to the increased unit cost of production for a business due to the expansion of the industry in which the business operates. The expansion of the business and the industry as a whole can result in changes to the external environment (see STEEPLE factors in Section 1.1.6 (/study/app/y12-business-management-a-sl-may-2024/sid-352-cid-174703/book/tool-swotsteeple-analysis-id-36834)). These external changes can increase average costs for the individual business.

There are a number of changes to the external environment resulting from industry expansion that can increase costs of production:

- **Limited natural resources:** When businesses grow their output, they need more inputs of natural resources. When this happens on an industry-wide scale, demand for raw materials may increase. Increased demand usually causes prices of raw materials to rise. This means that individual businesses may face higher costs of production. An example of this is when economies started to grow again in 2021 and 2022, after the COVID-19 pandemic began to subside. Businesses in certain industries, especially construction, faced higher costs of production for many inputs such as wood, copper and insulation. Demand for these resources had increased significantly.

- **Limited infrastructure:** When an industry expands, businesses will use infrastructure more often. They will send more lorries out on the roads for delivery; they will send more containers of products to ports; they will fill freight trains and ships with their products. This increased use of limited infrastructure can slow down deliveries and raise costs of production.
- **Increased regulation:** When an industry expands and has more power, governments will pay more attention to the businesses in that industry. Laws and regulations related to the industry may increase, which could increase costs of production. An example of this is in the technology industry, whose growth and power has raised concerns in society and government. Meta (formerly Facebook), Apple and Google all face increased regulation of their business activities in many countries, which will raise costs of production.
- **Pollution:** It is clear that the carbon dioxide emissions from business activity across all industries is causing climate change. Droughts, floods, storms and fires cost human lives and damage natural resources and infrastructure. The cost of production for firms will increase significantly in the future due to climate change (https://www.forbes.com/sites/rosecelestin/2021/03/05/climate-change-will-cost-companies-13-trillion-by-2026/?sh=4b7012bd6cdc).

Activity

Koç

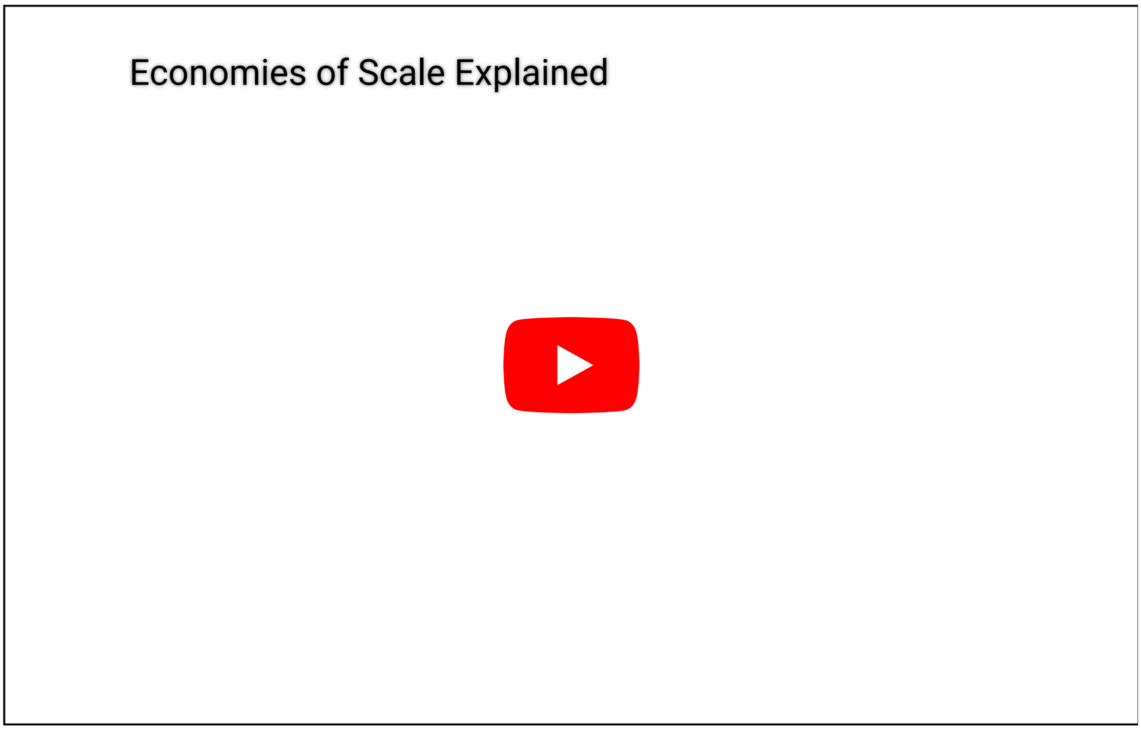
Learner profile: Principled; Caring
Approaches to learning: Research skills (information literacy); Thinking skills (critical thinking)

The online delivery service Amazon has grown enormously in the last decade. As a result, the company needs large warehouses close to large markets and ports where it receives its goods. The increased pressure on infrastructure can cause external costs for communities, in addition to the diseconomies of scale for Amazon.

Skim the article ''Pollution is everywhere': how one click shopping is creating Amazon warehouse towns (https://www.theguardian.com/us-news/2021/dec/11/how-one-click-shopping-is-creating-amazon-warehouse-towns-were-disposable-humans)'.

- Explain how the growth of Amazon has impacted communities near its large warehouses. You may wish to discuss this in class or with a partner.
- How can Amazon reduce the costs to communities of its explosive growth?

The video below summarises economies and diseconomies of scale.



Video 1. A summary of economies and diseconomies of scale.