

## **S3 Business Week Beginning 29/03/2021**

### **Methods of production**

#### **Learning Intentions:**

We are learning about the different methods of production.

#### **Success Criteria:**

I can identify different methods of production.

I can discuss advantages and disadvantages of each method.

#### **Instructions:**

Read the below pages and then answer the Intermediate 1 questions, if you want a challenge attempt the Intermediate 2 questions as well!

# Types of Production

## Production methods

Businesses must decide which method(s) of production to use to create their products or, in other words, how to **process** the **inputs** into **outputs**.

In deciding which method would be best to use, there are several factors that need to be considered:

- type and nature of the product being made
- quantity of the product being made
- methods used to ensure quality
- the way stock is managed
- resources (e.g. human) and technology (e.g. machinery) available.

There are three main methods of production: **job**, **batch** and **flow**.

**Top Tip Remember** – value is being added and wealth created as products move from one part of the production process to another.

## Job production

This is when one product is made from start to finish before another one is made. The product is made to the customer's exact requirements, which results in unique or one-off products being made. Such products are often made by hand.

Examples: wedding cakes, pieces of art, handmade chocolates.



Advantages of job production	Disadvantages of job production
<ul style="list-style-type: none"> <li>• Customers' exact demands can be met.</li> <li>• High prices can be charged.</li> <li>• Designs can be changed.</li> </ul>	<ul style="list-style-type: none"> <li>• Specialist tools or equipment may be needed.</li> <li>• Bulk purchases of stock are not always possible.</li> <li>• Products can take a long time to make.</li> </ul>

## Batch production

This is when one group of identical products is made at a time before another group of different products is made. All products in the batch move on to each stage of production at the same time. Machinery and equipment may be cleaned and/or changed between batches to produce a different product.

Examples: cakes, newspapers, bread.

Advantages of batch production	Disadvantages of batch production
<ul style="list-style-type: none"> <li>• Batches can be changed to suit customers' requirements and demands.</li> <li>• Cost savings can be made compared to job production.</li> </ul>	<ul style="list-style-type: none"> <li>• Resources (such as equipment and employees) may have nothing to do between each batch.</li> <li>• A fault or error in one item can lead to the whole batch being wasted.</li> <li>• The cost of each item could be high if only small batches are being made.</li> </ul>

## Flow production

This is when parts are added to the product as it moves along the production line. The final product will have been manufactured by the time it reaches the end of the production line. It is sometimes called **line production**.



Examples: cars, computers, other electrical items.

**Top Tip**  
You should be able to describe, give examples of and suggest advantages and disadvantages of the three methods of production.

### Advantages of flow production

- Large quantities of identical products can be made.
- Machinery is often used for the whole production process.
- Raw materials can be purchased in bulk.
- Machinery can work 24 hours a day, 7 days a week.

### Disadvantages of flow production

- Products cannot be made to customers' individual requirements.
- A fault or breakdown in one part of the production line could cause production to stop.
- Mass demand for identical products is needed.



## Automation and mechanisation

Products can be made by using a mixture of two resources: people and machinery.

Products could be made by people only	This is known as <b>labour intensive production</b> .
Products could be made by people and machinery	This is known as <b>mechanisation</b> . Mechanisation involves machinery as well as some degree of labour in the production process. For example, people may still be required to operate some parts of the machinery being used.
Products could be made by machinery only	This is known as <b>automation</b> or <b>capital intensive production</b> . Automation means that machinery controlled by computers is used instead of people to make something. It is sometimes used because machines do not require breaks and can work 24/7, unlike people.

## Labour and capital intensive

The quantity of capital (machinery and equipment) or labour (humans) used in a business determines whether it is **labour** or **capital** intensive. The advantages and disadvantages of both are given below.

	Advantages	Disadvantages
<b>Labour intensive</b> 	<ul style="list-style-type: none"> <li>• Employees can use their initiative when required.</li> <li>• There is always a supply of labour available.</li> <li>• It is cheaper than purchasing expensive equipment and machinery.</li> </ul>	<ul style="list-style-type: none"> <li>• Costly and time-consuming to recruit, select and train employees.</li> <li>• The accuracy and quality of work can vary depending on who is making the product.</li> </ul>
<b>Capital intensive</b> 	<ul style="list-style-type: none"> <li>• Machinery can work 24 hours, 7 days per week and does not require breaks.</li> <li>• Accuracy and quality of work are standardised (i.e. the same).</li> </ul>	<ul style="list-style-type: none"> <li>• It cannot meet individual and specific customer requirements.</li> <li>• Breakdowns can be costly and time consuming.</li> <li>• Employees become tired and bored of the repetitive tasks.</li> </ul>

### Remember!

- **Automation** means that machinery has replaced the need for employees to carry out the work required because machinery can do it instead.
- **Mechanisation** involves machinery as well as some degree of labour in the production process.

### Top Tip

You could be asked to **distinguish** between labour and capital intensive production.

## Quick Test 27

### Intermediate 1

1. Define the term 'automation'.
2. Define the term 'mechanisation'.
3. Describe job production and give an example.
4. Describe batch production and give an example.
5. Describe flow production and give an example.

### Intermediate 2

1. Explain two advantages of job production.
2. Explain two advantages of batch production.
3. Explain two advantages of flow production.
4. Distinguish between labour and capital intensive production.