Chapter 1

The Chain of Production

In this chapter you will cover:

• the production of goods and services to satisfy human wants and needs
• the process of production through secondary to tertiary production showing how value increases at each stage of production
• the chain of production
• extractive, manufacturing and construction industries and tertiary activities

Production

What is Production?

The definition in a dictionary says it is the act of producing, of making something that was not there before or was not in the same form. Economists might describe production as the ‘creation of utility’ i.e. making something useful such as clothing from something that was not so useful such as cotton fibre.

Production can take many forms (Fig. 1.1). It is not just concerned with making goods but with producing services as well. These may be services which are provided directly to the person requiring them such as medical services or services which assist the production of goods such as the transport of goods from the manufacturer to the retailer.
Production may also be divided into two branches – industry and services (Fig. 1.2).

![Production Diagram](image)

### Why does Production take place?

Production of goods and services is necessary to satisfy people’s **needs** and **wants**. They need or want what is produced. If they do not demand a product, the production will stop.

Everyone has some basic **needs** without which they would not be able to survive. For example, food to eat, shelter such as housing, water, clothing to protect themselves from either heat or cold etc.

Once people have satisfied their basic needs, they begin to want other things to make life more pleasant as they do not need these things. They can survive without them. These **wants** make people more comfortable, more fashionable or give them a better quality of life.

These wants may be material wants i.e. visible items such as domestic appliances like washing machines or microwaves, sports facilities, hotels for holidays, designer clothes, the latest computer and software etc.

These wants may be immaterial wants i.e. services such as entertainment including films and television programmes, transport such as cars and taxis, medical care, communication such as the telephone or email, hairdressing, holidays etc.

Some of these wants have become necessities for some people. A person may not be able to find a job without having to travel from home. Many people commute to work. They wish to live in the country but the well-paid jobs are in the city so they must use transport to travel daily to the city.

### Can you think of some other examples of people’s needs and wants?

Production may also be divided into two other strands:

- **Direct production** – when a person tries to provide all he needs by his own efforts. For example, an African farmer who has a small area of land and farms it to support his family.

- **Indirect production** – most kinds of production – when a person concentrates on one occupation and produces a surplus. For example, a Canadian wheat farmer who trades his wheat for goods and services produced by other people. He will use money as a medium of exchange.
Branches of Production

Primary Production

This is the first stage in any production process. It is concerned with obtaining or extracting natural resources from the earth such as minerals, fuel, raw materials or food. These natural resources usually need some processing or manufacturing to convert them into a usable form. The amount of primary production in many developed countries is declining, e.g. farming in UK. Many developing countries rely on the income from primary industries to buy finished goods. Botswana’s economy is very dependent on its exports of beef and diamonds. Swaziland has huge areas of forest and an important timber and wood pulp industry.

Here are some examples of primary industries and occupations in these industries:

<table>
<thead>
<tr>
<th>Primary industries</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>Coal miner</td>
</tr>
<tr>
<td>Prospecting</td>
<td>Gold prospector</td>
</tr>
<tr>
<td>Farming</td>
<td>Farmer</td>
</tr>
<tr>
<td>Forestry</td>
<td>Lumberjack</td>
</tr>
<tr>
<td>Fishing</td>
<td>Fisherman</td>
</tr>
<tr>
<td>Quarrying</td>
<td>Stone blaster</td>
</tr>
</tbody>
</table>

Can you give some more examples of primary industries or occupations?

Primary industries may be further divided into two kinds:

- **Exhaustive industries** – those industries that take resources from nature and these resources are not replaced, e.g. mining, quarrying.
- **Non-exhaustive industries** – those industries that take resources that are renewed from time to time, e.g. farming, fishing.

Primary industries are dependent on geological and climatic conditions. Copper mining is important in Zambia because it has large deposits of copper. The Middle East countries have plenty of oil supplies. The climate in Malaysia is suitable for growing palms to produce palm oil.

Secondary Production

This second stage changes the raw materials into finished goods. Natural resources are taken from a primary producer and their form is changed using labour, machinery and technology.

**Manufacturing** usually takes place in a factory. It may involve many processes, e.g. cutting, stitching, assembling, welding etc. The processes may take place in many different countries particularly if the manufacturer is a multinational company such as a car manufacturer. While this is happening, the value of the product is increasing as it is changed into more usable form.
Here are some examples of manufacturing industries and occupations in these industries:

<table>
<thead>
<tr>
<th>Manufacturing industries</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel making</td>
<td>Foundry-worker</td>
</tr>
<tr>
<td>Cars</td>
<td>Mechanic</td>
</tr>
<tr>
<td>Toys</td>
<td>Machinist</td>
</tr>
<tr>
<td>Furniture</td>
<td>Carpenter</td>
</tr>
</tbody>
</table>

Can you give some more examples of secondary industries or occupations?

In many developed countries such as France and Germany, the amount of manufacturing industry is declining as developing countries such as India and Pakistan are developing their manufacturing industry. Also, China’s manufacturing industry is growing on a yearly basis.

Secondary industry also includes **construction** – building or assembling manufactured parts into a final product.

Here are some examples of construction industries and occupations in these industries:

<table>
<thead>
<tr>
<th>Construction industries</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>House-building</td>
<td>Bricklayer</td>
</tr>
<tr>
<td>Shipbuilding</td>
<td>Welder</td>
</tr>
<tr>
<td>Dock and harbour</td>
<td>Engineer</td>
</tr>
<tr>
<td>Road making</td>
<td>Labourer</td>
</tr>
</tbody>
</table>

Can you give some more examples of construction industries or occupations?

Secondary industry also includes **processing** – changing raw materials into semi-manufactured goods.

Here are some examples of processing industries and occupations in these industries:

<table>
<thead>
<tr>
<th>Processing industries</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>Baker</td>
</tr>
<tr>
<td>Textiles</td>
<td>Weaver</td>
</tr>
<tr>
<td>Oil refining</td>
<td>Engineer</td>
</tr>
</tbody>
</table>

Can you give some more examples of processing industries or occupations?

**Tertiary Production**

The third stage of production involves the provision of services. These may be of two general kinds:

- **Commercial or indirect services** – These are concerned with assisting the distribution of the output from both primary and secondary production (see Chapter 4). These services change the location of the goods and make them more available to those who want them.

In many European and North American countries the range of commercial services available, the number of people employed in them and the earning from these services has increased considerably in the last ten years.
Direct services – These services are of a personal nature and are given directly to the person receiving them. The people who provide them do not make goods. They give services to people to make them healthy, happy, safe and to amuse them. These services often help people to work more productively – a healthy person is likely to work harder than someone who is feeling unwell. Some examples of people who provide direct services are: teachers, accountants, lawyers, nurses, soldiers, police, dentists, actresses, footballers, writers, pop singers and hairdressers.

Can you give some more examples of people who provide direct services?

The importance of this sector has increased in many parts of the world as people have become wealthier and have more leisure time. People nowadays spend more money on entertainment, education and alternative health services.

It is sometimes difficult to distinguish between a commercial service and a direct service. An airline pilot provides a service. The airline pilot flying a passenger airline is performing a service directly for the people who are sitting in the aircraft. The airline pilot may, however, be flying an aircraft carrying only freight. He is then performing a commercial service because he is transporting goods.

It is sometimes also difficult to decide the branch of production to which some of the occupations belong. A carpenter may have to fit a cupboard into a kitchen. As he is making the cupboard, he is involved in secondary production. He is also providing an individual service for his customer so it could be argued that he is giving a direct service to his customer. A farmer who grows crops but also owns and runs a farm shop is concerned first with primary production and then as a retailer with tertiary production.

Producers and Consumers

Producers provide goods and services to consumers. Consumers are the final users of goods and services. They buy goods or services to satisfy their needs and wants and not for resale. Without consumers there would be no need for production as it the consumer who buys the goods and services that are provided.

The Chain of Production

The chain of production is the various stages through which the production of goods passes to reach the consumer. The three kinds of production are linked together in the production process. The chain of production begins with primary production and is not complete until the goods reach the consumer, as can be seen from Fig. 1.3.
6 O Level Commerce

The chain of production includes not only the industrial production but also the commercial services necessary to link production to the consumer. The relationship and interdependence between industry and these commercial services (commerce) is considered in Chapter 4.

In order to understand the concept of the chain of production better, it would be useful to study the chain of production for a wooden chair (Fig. 1.4).

The chain of production shown in the figure consists of several industrial processes and also commercial services such as transport and storage to link the producer to the final consumer.

**PRIMARY PRODUCTION**
Growing of trees, Felling of trees

- Stored to season the wood
- Transported to sawmill

**SECONDARY PRODUCTION**

a. IN SAWMILL
Sawn into planks or suitable lengths, Transported to factory

b. IN FACTORY OF FURNITURE MANUFACTURER
Wood is turned for the legs, Seat and back are made, Parts are glued/screwed together, Chair is sanded and varnished

- Advertised
- Stored with other chairs
- Transported
- Communication with buyer

**TERTIARY PRODUCTION**
WHOLESALE AND/OR RETAILER
Ready for sale

- Advertised for sale
- Transported to consumer
- Communication concerning order

**CONSUMER**
Who uses the chair at home

Fig. 1.4 Chain of production for a chair
Adding Value at Each Stage of Production

Added value is the difference between the value of a firm’s output and the cost of the materials, components and services used to create it. Adding value focuses attention on the value that a company adds to the materials and services it has bought by its own production and marketing skills. Added value can be calculated as follows:

Selling Price – Bought-in Materials and Services = Added Value

As goods pass from one kind of production to another, they gain in value and their worth increases. The work carried out on them adds value to them. Commercial services are needed to move raw materials to factories and to move semi-finished goods to other factories. Storage, advertising, banking and insurance services are required by manufacturers, wholesalers and retailers, and all these services add value to the products being made for the consumer.

This can be seen in the production of the chair as well. The chair is much more valuable than the wood it was made from. As the wood goes through the manufacturing process, its value increases. The timber in the sawmill is worth more than the trees in the forest. The parts of the chair are worth more than the planks of wood they are made from. The various commercial activities such as transportation, advertising and display in the shop, all add value to the chair. The customer will therefore pay more for the chair than for the lump of wood it came from. The retailer will increase the value of the chair as he will provide a local supply so that the consumer does not have to waste time looking for a chair.

Fig. 1.5 Adding value to a chair
Points to Remember

- Production refers to providing goods and services to satisfy the human needs and wants.
- Human wants are the individual requirements to make life pleasant.
- Human needs are the necessities to maintain life.
- Primary production is concerned with extracting natural resources.
- Secondary production is concerned with manufacturing, assembling and processing products from raw materials.
- Tertiary production refers to the provision of commercial and direct services.
- Direct services is providing services directly and personally to the person needing them.
- Industry involves activities concerned with obtaining raw materials and changing into finished goods, e.g. primary, extractive, manufacturing and construction.
- Consumers are the users of goods or services.
- Added value is the difference between the value of a firm’s output and the materials and services bought to create it.

Practice Questions

Short Answer Questions

1. Using examples, distinguish between the primary and secondary industry.

2. Why is construction a secondary industry?

3. What chain of production would be most suitable for a local fisherman who owns a small boat?

4. Which of the following is a service (S) and which is a good (G)?
   - fixing a car engine
   - filling a tooth
   - clay pots
   - serving a meal
   - teaching children
   - guarding a prisoner
   - packet of biscuits
   - cooking oil
   - decorating a house
   - pet food
   - reading news on television
   - a set of chairs
   - today’s newspaper
   - washing soap
   - a bag of maize
   - brading hair
   - a mechanical toy
   - acting in a play
   - repairing a shoe
   - bag of charcoal
5. The pictures show three stages of furniture production. Identify the three stages of production shown in A, B and C. Who is the person that you would expect to find at the end of the chain of production in D? Explain why this person is important.
(adapted from Nov 2002)

6. How does a person providing a direct service differ from one providing a commercial service?

**Multiple Choice Questions**

1. What is the meaning of production?
   a. creation of utility  
   b. exchange of goods and services  
   c. extraction of raw materials  
   d. manufacture of finished goods

2. The satisfaction of human wants and needs is best achieved when people:
   a. buy all they need  
   b. produce goods and services  
   c. produce all they want  
   d. purchase goods on credit

3. Through what stages does a product add value?
   a. primary – secondary – tertiary  
   b. primary – tertiary – secondary  
   c. secondary – tertiary – primary  
   d. tertiary – secondary – primary
4. Which industry is wrongly paired with its type of production?

<table>
<thead>
<tr>
<th>Industry</th>
<th>Type of product</th>
</tr>
</thead>
<tbody>
<tr>
<td>farming</td>
<td>primary</td>
</tr>
<tr>
<td>car making</td>
<td>secondary</td>
</tr>
<tr>
<td>boat building</td>
<td>primary</td>
</tr>
<tr>
<td>banking</td>
<td>tertiary</td>
</tr>
</tbody>
</table>

5. Which of the following would be regarded as secondary production?

a. engineering  
b. farming  
c. insurance  
d. drilling

6. In which stage of production would a tractor be used?

a. primary  
b. secondary  
c. tertiary  
d. direct service

**Essay and Long Answer Questions**

1. Identify and explain the stages of production through which a wool jumper must pass before you can wear it.

2. What is shown in the picture given below? Into what kind of production would you classify the occupation? Give reasons for your answer.

3. ‘Consumers have many wants and needs which are satisfied by both home and international trade’. Explain, with examples, the meaning of this statement. (Nov 2005)

4. Show how commercial activities assist the satisfaction of human wants. (June 2000)