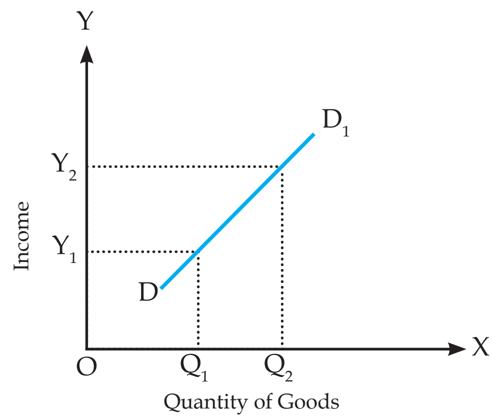
UNIT

1

Basic Concepts of Economic and Allocation of the Resource



Learning Outcomes

- To explain the meaning of scarcity and choice,
- To describe the concept of opportunity cost,
- To explain the meaning and shape of production possibility curve and it shift,
- To explain the meaning of distribution of resources,
- To explain the meaning, advantages and disadvantages of division of labor and specialization,
- To explain the types and characteristics of economic systems.

Economic Issues: Scarcity, Choice, Opportunity Cost, and Allocation of Resources

The Economic Problem: Scarcity and Choice

Scarcity refers to the limitedness of resources in relation to the human demand. However, scarce resources have alternative uses.

Human beings have unlimited wants. But the means are scarce in relation to human wants. Scarce resources have alternative uses. Men always attempt to utilize these scarce resources for optimum satisfaction. He/ she is always focused on utilizing more resources for maximum gains. This idea gives birth to economic problem. Alternative uses of scarce means creates problem of choice. Scarcityand choice are major economic problems. They create problems and economics aims to solve such problems.

1. Problem of Scarcity

Scarcity means availability of less resources with respect to human wants.

Inability of scarce resources to fulfil limitless human wants is a basic characteristic of economy. Scarcity is a root cause for the creation of economic problem. Stonier and Hague opine that, "if scarcity does not exist, there would not be economics". As the definition, scarcity is the central topic of economics. Scarcity is the condition where supply does not meet the demand. If a good is limited, but there is no any demand for the good, we cannot call it scarce. In other words, the limited goods do not create scarcity. To be scarce, the demand for the goods must be higher than its supplying capacity.

Definitions of Scarcity

*In the words of **C. Bomford and S. Grant**, "Scarcity is a situation in which wants and needs are in excess of the resources available."*

*To **Jhon Beardshaw**, "All resources are scare in the sense that these are not enough to fill everyone's wants to the point of satiety."*

Problem of scarcity appears due to the greater demand for resource than supply of resource in the economy. i.e. scarcity exist due to a) unlimited wants and b) limited resource. If there was abundance/greater supply of resource, the problem of scarcity could not be arised.

The word 'scarcity' is used in relative sense. There is scarcity of productive resources such as land, labour, raw materials, machinery, equipments, etc. in the world. Therefore, it is impossible to produce all goods and services to satisfy all wants of the people. Production of a particular good in a large quantity means to limit the production of another good. It is because of scarcity of means, problem of choice occurs. Hence, the utilization of scarce means for optimum satisfaction is a main challenge. It is therefore, a major economic problem.

The scarcity of means which fulfills human needs is a fundamental economic problem. But J.K. Galbrith mentions that the economic problem has already passed from scarcity to abundance and poverty to prosperity. He is not absolutely right in his saying. Even in the developed countries, the economic problem is created due to scarcity of goods and services. On the other, the situation is horrible in developing nations.

Since scarcity is a relative concept. The resources are scarce even in the developed countries because everyone wants more and better resources.

2. Problem of Choice

The resources available to us are insufficient to satisfy unlimited human wants. The economic problem arises mainly due two facts: one human wants are

The economic problem arises due to unlimited wants and limited resources.

boundless, secondly, satisfying resources are very few.

Choice refers to the selection of the best possible alternatives from available scares resources.

Resources have alternative uses. For example; a plot of land can be used either for producing paddy or wheat or vegetables or fruits, etc. So, choice is necessary due to scarcity of resources. All the resources are limited compared to demand. Therefore, the society must have to choose which commodity is to produce and which commodity is to postpone. Hence, the problem of choice arises.

Problem of Choice appears due to the greater demand for resource than supply of resources.

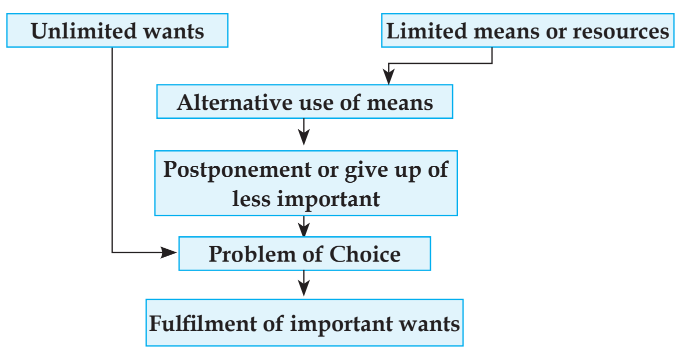
People have to make choice while spending their income. They have to think how much to spend and how much to save out of their income. Similarly, it is also necessary to decide how much to spend on food, how much on dress and how much on recreation. In this way, making a choice is the basic economic problem. This is why, Lionel Robbins has also defined Economics as the science of choices.

Option of choice encompasses the features: a)unlimited wants, b) limited resource, and c)alternative uses of resources. If the resources had not embodied by alternative uses, the concept of choice would not have appeared in human society.

On the other, all human wants are not of equal importance. So one should set a priority in order to address all the wants in a series. While doing so, urgent want gets addressed at first and others, later. Human uses his/her finite means in an alternative basis for optimum satisfaction. Most urgent choice gets the first priority among such many similar choices/wants. Where a less urgent choice gets postponed until it becomes urgent one.

The following diagram shows how limited means and unlimited human wants give birth to economic problem as well as problem of choice.

Scarcity and Choice



Evaluate Yourself

1. What is meant by scarcity of resources?
2. How does the problem of choice exist in an economy?
3. Write short note on scarcity and choice.

Concept of Opportunity Cost

Opportunity cost is the forgone cost you would otherwise get.

The concept of opportunity cost is also related to the economic problems of scarcity and choice. The means are not only scarce but also they are put into several alternative uses. So when choosing the best alternative, the next best alternative is sacrificed. Whatever the benefit that we sacrifice in order to achieve best alternatives, it is called opportunity cost. This concept of cost is useful for the policy maker while making decision on socio-economic projects. The cost benefit analysis is a guiding tools while making on appropriate decision on different projects. This analysis is based on the theory of opportunity cost.

Opportunity cost is the most common, broadest and basic concept of cost for cost analysis. According to Roberts (2015), "Opportunity cost is what you have to give up to get something". It means one cannot have two things done at a time: Fitch fodder for animals and read at school. A student can either do the first or the second out of his/her capacity by sacrificing any one which is opportunity cost for him/her.

Opportunity cost is more in dynamic, energetic and calibre person. In school, opportunity cost is more for rural students than urban.

In the words of Henderson (2015), "When economists refer to the opportunity cost of a resource, they mean the value of the next-highest-valued alternative use of that resource". In economic analysis,the value of resources is measured in terms of the alternative opportunities that are sacrificed or forgone when resources are allocated in particular way, and in order to underline the fact that resources are limited, so that choices necessarily involve the term opportunity cost (Woodhall, 1987). Therefore, opportunity cost is the expected returns from the next best and most profitable alternative use of the resources forgone.

The Concept of Distribution of Resources

Resources are vital to the existence of people. To familiarize students with the concept of resource distribution and encourage them to think about how people interact with limited resources. Resource distribution refers to the distribution of resources, including land, water, minerals, wealth in general among corresponding geographic entities. Resource distribution refers to the geographic occurrence of resources on earth. In other words, where resources are located, any particular place may be rich in the resources in one and poor in others. As a result, resources are distributed unevenly across the globe.

Natural resources are materials people obtain from Earth that have economic value or are important for human life .Water, forest, minerals, and even fossil fuels are the resources that serve people well. Resources are distributed throughout the world, though not always equally, and some people have better access to resources than others.

Resources are distributed in different ways and in different amounts throughout the world. Often the result of past geologic processes such as volcanic activity or tectonic movement, this unequal distribution means that various quantities of certain resources are only available to some people. Inequality exists in resource distribution .This is not only in different countries but also in the different parts of the same country .Due to the lack of equal access to the available resources ,problem of economic inequality exists in the country and even in the world. Proper use of available resources is a prerequisites for the fulfilment unlimited needs of the people .Any country can achieve the goal of economic development and growth only by the wise utilization of resources which is proved by the experienced of developed countries. The problem with inequality in the distribution of resources is how each country makes the most of the available resources and makes the most of them. This concept is also related to utilization of resources for the production of goods and services .It has the following aspects:

What to Produce?

This problem is related to the selection of the goods whether to produce more consumer goods or capital goods .Due to the limited availability of resources, it is impossible to increase the production of both consumer goods and capital goods .So an economy has to decide which product to produce and in what quantity. For example, if an economy decides to produce more of clothes then it will have to produce less of machine.

How to Produce?

After deciding what to produce,the economy has to decide how to produce goods and services .This problem is concerned with the selection of production techniques. There are two techniques of production i.e.,labour intensive technique and capital intensive technique. Out of which the economy has to decide which production technique can be used to produce efficiently at low cost. The selection of the production technique depends on the availability of resources and the economic status of the country.

For Whom to Produce?

This problem is concerned with the distribution of produced goods and services among the different sections of the society. The economy has also to decide how to distribute the production. Different factors of production such as land, labor, capital and organization are used and each factor input gets the rewards as per the contribution in production process. So this problem is concerned with the sharing of total products among these factor inputs in the form of rent, wage,interest and profit respectively.

How to Attain Full Employment?

This problem is concerned with the full utilization of resources i.e. no wastage of the available resources. Since the resources are scarce,they should be utilized properly. If the resources remained unutilized,economic development will be badly affected. So the economy has to decide how to utilize the resources i.e. land, labor, capital and other resources in order to achieve maximum output without the wastage of resources.

How to Achieve Economic Growth?

Another problem of an economy is how to increase the production capacity of the country. What are the factors that bring the change in the productive capacity of the country? It is also known as the growth of resources. Through the advancement of technology, the objective of growth of economic resources can be achieved.

Evaluate Yourself

1. What is meant by opportunity cost?
2. What is resource allocation?
3. What are the basic economic problems of an economy?
4. Describe the problem of resource allocation.

Production Possibility Curve (PPC): Concept, Shape and Shift

Concept of Production Possibility Curve

The best way to illustrate opportunity cost is to use a PPC.

Production possibility curve is the graphical or diagrammatic representation of the best possible combinations that an economy can produce by using the available resources.

The concept of Production Possibility Curve is related with the economic problem pointed out by Robbins that the means are scare in relation to multiple ends. The economic problem arises in every type of economic society on account of scarcity of means and unlimited wants (ends.) Prof. Paul Samuelson has brought the concept of production possibility curve (PPC) to clarify the relationship between scarce means and unlimited wants.

Definitions of Production Possibility Curve

*As per **P. A. Samuelson,** "Production possibility curve is that curve which represents the maximum amount of a pair of goods or services that can both be produced with an economy's given resources and techniques, assuming that all resources are fully employed."*

*According to **David Begg**, "The production possibility curve shows maximum combination of output that the economy can produce using all available resources."*

*In the words of **Susan Grant**, "A PPC shows the maximum output of two products and combinations of these products that can be produced with existing resources and technology."*

The PPC can be used to solve three basic problem of economic life what to produce? How to produce ? and for whom to produce?

A Production Possibility Curve (PPC) is a graphical presentation of all of the possible combination of two goods that the economy can produce with the efficient use of resources with given technology at a given period of time. The concept of production possibility curve is based on the following assumptions:

- The economy is producing two goods i.e. consumer goods and capital goods
- The economy is operating at full employment and achieving full production.
- Factors of production are given and fixed.
- The state of technology does not change
- Time period is given

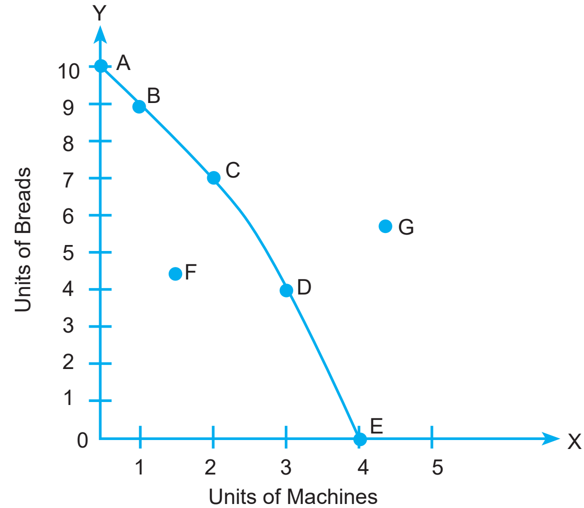
For the clear understanding of this concept, let us suppose that the economy is producing just two goods-breads and machines. Bread is symbolic of consumer goods and Machine is symbolic of capital goods. While producing goods, the economy is faced with a very fundamental problem i.e., choice. Due to the limited availability of resources, the economy will have to make a choice as to what quantities of each product are to produced. Since the resources are limited in supply and already fully employed any increase in the production of machines will necessitate the shifting of resources away from the production of breads. In other words, the production of machines can not be increased without transforming the resources used in the production of bread. Similarly, if the production of bread is to be stepped up, the required resources will have to be secured at the cost of machine production. This concept can be explained with the help of the schedule that contains different alternative combinations of breads and machines which the economy might produce.

Table: Production Possibility Schedule

Combination	Machines (Units)	Breads (Units)
A	0	10
B	1	9
C	2	7
D	3	4
E	4	0

The above table shows tat production possibilities of machines and breads. If all the available resources are allocated for the production of breads, the economy can produce 10 units of breads. Similarly, if all the resources are allocated for the production of machines, the economy can produce 4 units. Bot these alternatives represent extreme and unrealistic situation. Alternatively the economy can produce many other combinations like B, C and D of two goods and can choose any one among them.

At combination B the economy can produce one (1) unit of machine and 9 units of breads. Similarly, at combinations C and D, the machines and breads are (2, 7) and (3, 4) respectively. If we join all these combinations, mentioned above, a graphical representation of production possibility schedule comes out in production possibility curve. Thus, the production possibility curve can be defined as a locus of the points of all possible combinations of two goods that can be produced by the economy at full employment of given resources at a given state of technology in a given period of time. This can also be cleared with the help of the following diagram.



In the above figure, X-axis represent Machines and Y-axis represent breads. We have located the points based on different alternative combinations on the graphs from A to E. Joining the various points, we obtain a curve which is known as the production possibility curve (PPC). It is also known as transformation curve, because in moving from one alternative to another, say from B to C we are transforming bread into machine by shifting resources from the production bread to the production of machines.

Any point outside the PPC is impossible to attain with available resources and technology. The points lying outside of PPC give more production of both breads and machines but they are not attainable. They are out of the capacity of the economy. Any point inside the PPC indicates that resources are not being fully employed in the best known way. Any point along PPC represents the efficient use of available resources in the production process. In conclusion, PPC shows the menu of choices of economy.

Evaluate Yourself

1. List out the assumptions of production possibility curve.
2. Illustrate the production possibility curve (PPC)? Or, Derive PPC

Size of Production Possibility Curve

Production possibility curve is concave to the origin. Because to increase the production of one good say, Machine more and more units of the other goods have to be sacrificed with the shift of the resources from one use to the other. Therefore, due to the increasing marginal rate of product transformations the PPC is cancave to the origin.

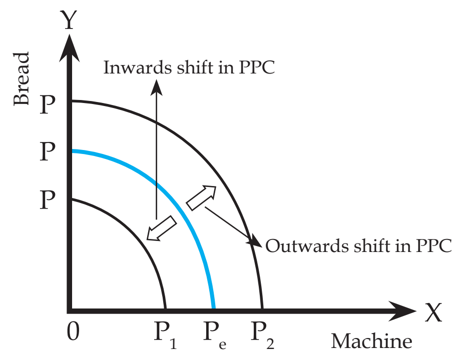
Shift in Production Possibility Curve

Every economy tries to achieve higher economy growth by making the best possible use of existing resources.

With the change in technology, labour and raw materials, the PPC either shifts to the left or right.

In any economy, the major goal is to achieve its growth, which is to say, producing increasing amounts of the goods and services that consumers demand. Production possibility curve (PPC) shows the maximum quantity of goods and services obtained by optimum utilization of resources and technology in an economy.

Thus, anything that causes economic output to increase or decrease will shift this curve. When the economy grows, we can produce more, so this will cause a shift in the PPC outward, or to the right. If the economy were to shrink, then, of course, the curve would shift to the left or inward. In other words, when the curve shifts outward, or to the right, that means output is increasing. When the curve shifts inward, or to the left, that means output is decreasing. This concept is illustrated in figure as under:



Shift in–PPC

Suppose that PP_e is initial PPC in given figure which is different combinations of two Machine and Bread. In the output of both goods increase by any cause, the PPC shifts outwards as shown by PP_2 curve. On the contrary, if output decreases by any causes, the PPC shifts inwards as shown by PP_1 curve to reveal decreased amount of output. The causes of inward and outwards shift are explained as under:

1. **Labour Force:** Among various means of production, labour force is vital. It operates other means of production. Increase in labour force increases the production. So the curve shifts outward or to the right. Opposite to it, decrease labour force decreases the production, and, PPC shift inward.
2. **Raw Materials:** The most common reason a PPF would shift is because of a change in raw materials. The outward shift could occur as a result of increase in raw material. On the contrary, decrease in raw materials would cause inward shift in PPC. It is because output decreases with the decrease in raw materials.
3. **Development of Technology:** The most common reason a PPC would shift is because of a change in technology. For example, if someone developed a faster computer, or a more efficient way of manufacturing cars, we might see a shift right in the PPC. This means that everything else held constant (ceteris paribus) more goods can be produced after the technological change. Opposite to it, use of old technology, breakdown, wear-out, tear-out of technology

causes the inwards shift of PPC.

Thus, increase in the means of production and development of technology along with economic prosperity cause causes increase in production which can be shown by outwards shift in PPC and vice-versa.

Evaluate Yourself

1. What are the causes behind the shifts of production possibility curve?
2. Why does the PPC expand outward?
3. Mention the major assumptions of PPC.

Division of Labor

Division of labor first originated from the division of workers in different occupations. Division of labor means the diversity of rules within the same enterprise, applicable to all the factors of production. It is the production process in which a worker or a group of workers is assigned a specialized task in order to increase efficiency and productivity.

Adam Smith, one of the pioneer of economic analysis and modern economic thought, wrote about specialization in his famous book, The Wealth of Nation. Adam Smith Argued that specialization within the labor force was one of the primary contributors to increase productivity. He focused on describing the benefits of individuals specializing in labor. In An Enquiry into the Nature and Causes of Wealth of Nations (1776), he has described the benefits of division of labor when cooperating individuals perform specialized tasks. Smith discusses this type of specialization in the context of pin factory.

Smith explains that if the pin factory had each person making pins from start to end, they may be able to make upward of 20 pins each day .Now consider if the pin making process is divided into distinct operations and each person are able to specialize in a particular operation, each person can produce more than he can produce alone.

Division of labor is based on the principle of co-operation or interdependence. The different persons among whom the work is divided cooperatively in the production of goods. For example, to make a chair, one group is engaged in making backs, another seats and still another joining them and finally there is a group of workers polishing the chairs. All of them cooperate and through their cooperation a chair is made.

Division of labor is found in all societies. In the earlier societies marked by handicraft economy, it was simple division of labor. The societies in those days were a simple organization. Such a society neither needs nor permits a wide range of economic specialization. Economy was a self-sufficient type. There were little trades and techniques were few and simple.

In modern machine age, division of labor is complicated phenomenon. Now there are thousands of workers in an industry to perform different specialized tasks in order to produce a pair of shoes. A line of command is necessary to ensure that all these workers perform their individual task in and integrated manner.

Many scholars and sociologists define the division of labor in different ways. Some of are given below:

According to Collins Dictionary of Sociology(2000),"*The process whereby productive tasks become separated and more specialized."*

According to Oxford Dictionary of Sociology*"A way of organizing work, especially making things, so that particular types of work are done by particular people."*

Conclusion :Division of labor is defined as the process whereby people perform different tasks as per their experience, knowledge, skill, training etc. at the same time in order to produce single product. It is the process of dividing the responsibilities within the organization in order to achieve the target, designed by the organization.

Forms of Division of Labor

By division of labor we mean an arrangement whereby each individual worker performs one particular task at the same time. Though the term, Division of Labor,is applied in the field of economics,yet in fact division of labor,in modern society,is not limited simply to labor but applies to all the factors of production and exists beyond the purely economic field .There may be three forms of division of labor.

1. **Simple division of labor/social division of labor:** This means division into occupation. Dividing society into major occupation e.g. farmers, carpenters, black smiths, weavers, teachers, priests etc. This is also called functional division of labor.
2. **Complex division of labor:** This means the division of labor within the particular enterprise .Thus, within the factory there are weavers, spinners, designers, accountants, managers and engineers .the work may be divided into complete tasks like spinning, weaving, bleaching, designing, finishing etc. In this type of division of labor, no group of workers makes complete article. The making of article is split into processes and sub-processes and each group carried out separate process and sub-process. This division is also called technical division of labor.
3. **Territorial division of labor:** This is also known as localization of industries .Under this division of labor, certain places or regions come to specialize in the making of certain articles. For example, tea production in Ilam.

Advantages of Division of Labor

Some of the major advantages of division of labor are as follows:

1. **Increase in Productivity:** The greatest advantage of division of labor is that it

increases immensely the productivity per worker. This point can be cleared by the famous exampleof pin making given by Adam smith. The process of pin making is divided into 18 separate operations.

Ten men make 48000 pins in a day. One worker may, therefore, be considered to have made 48000 pins in a day. In the absence of division of labor one man could have made only one pin in a day or at the most only 20 pins. Thus, with the division of labor, the productive capacity of the individual and of the community has greatly increased.

2. **The Right Man in Right Place:** Another great advantage of division of labor is that the work is allotted according to the ability and capacity of the worker. This ensures a high degree of efficiency as right man is put in right job. Thus, it eliminates the possibility of fitting a square peg in a round hole.
3. **Increase efficiency and skill:** The worker becomes highly skilled and acquires high degree of efficiency because of the repeated performance of the same operation .As the age-old dictum goes, practice makes a man perfect. The worker acquires perfection in his skill because he has to carry out the same operation over and over again.
4. **Possibility of Invention:** Another significant advantage of division of labor is that it promotes the development of new ideas and better techniques of doing the work. It is due to the fact that when a worker is performing the same job over and over again, he can think of doing that process in a better way. Thus, division of labor results in invention of new machinery and better tools.
5. **Saving in Time:** Under division of labor, a worker performs a part of the whole process and therefore he needs to learn only that much. Long period of training is not necessary. This saves the time and money .Further as the worker remains employed on the same process, he does not waste his time in moving from one process to another. He/she, therefore, goes on working without loss of time.
6. **Economy in the use of Tools:** Under division of labor, a worker is not provided with a complete set of tools required for the whole process. He is provided with only those tools which are required by him for the performance of that part of the process. Thus, one set of tools can be made use of by many workers .this is the great economic gain.
7. **Encourage for the use of machinery:** By breaking up the production of a commodity into small and simple operation, division of labor encourages the use of machinery and its introduction. These simple operations easily can be carried out by suitable machines.
8. **Cheaper Goods:** Another important advantage of division of labor is that the economies of large scale are reaped. The cost per unit tends to fall down when the commodity is produced on a large scale which ensures the production of cheaper goods. Even poor people can buy them.

9. **Increase entrepreneurship:** Since the work is divided into various processes, someone is required to co-ordinate the work. This has resulted in the rise of entrepreneur whose job is to specialize in the art of organization.

Disadvantages of Division of Labor

Some of the disadvantages of division of labor are as:

1. **Monotony:** When a worker involves in a same work over and over again, he starts losing interest and pleasure in the work. The work becomes monotonous in nature and boredom arises.
2. **Loss of responsibility:** Under division of labor, the final product is not the output of single worker but the creation of several workers. Therefore, no individual can be held responsible if anything goes wrong.
3. **Lack of job pride:** As a worker performs only a part of the job, he cannot take pride in the final output. There is little pleasure of creating something.
4. **Reduce the mobility of labor:** Since every worker specialize in one type of work, he may find it difficult to procure a job in case of unemployment. There is the possibility of unemployment. If the industry shuts down for some reason, he is unlikely to get another job.
5. **Greater interdependence:** Job, work process and industries become increasingly interdependent due to division of labor. Any problem of defect in one part may cause disturbance and dislocation in the entire process of production.
6. **Possibility of over production:** While producing goods under the division of labor, each worker efficiently completes the task assigned to him. Due to which goods are produced in large scale. If the demand in the market does not increase accordingly, there is the possibility of over production.
7. **Exploitation of worker:** Under division of labour, work is split into smaller and smaller sub process and employers employ children and women at low wages which exploits their job. Also, women workers can be sexual abused.
8. **Industrial disputes:** When the work is done under division of labour different people are involved in different jobs. As a result, in big industries they have to join each other in groups in some cases due to the lacks of understanding between the workers and employers, the workers engage in activities such as strikes, lockout etc. which destroy the industrial peace of the country.

Evaluate Yourself

1. What do you mean by division of labour? Illustrate the its types.
2. What are the advantages and disadvantages of division of labour?)

Specialization

Specialization is a fundamental economic concept that helps to explain the division of labor present within modern economies of scale. It is defined as a process wherein a company or individual decides to focus their labor on a specific type of production. In common sense, specialization means focusing on a specific job. When an individual specializes, he/she limits their focus to one specific activity when a company specializes,it focuses on a narrow range of goods or services.

Adam Smith, one of the pioneer of economic analysis and modern economic thought, wrote about specialization in his famous book, The Wealth of Nations. Specialization is a method of production whereby an organization focuses on the production of a limited scope of goods to gain a greater degree of efficiency. This specialization is, thus, the basis of international trade, a few countries have enough production capacity to be completely self-sustaining.

If, for example, a country can produce bananas at a lower cost than oranges, it can choose to specialize and dedicate all its resources to the production of bananas, using some of them to trade for oranges. Specialization also occurs within a country's borders. Specialization, sometimes called business efficiency, refers to the ability to produce a goods or a service using native resources and focus on understanding the production process of a product and its industry. Countries specialize in the production of certain goods and services, thereby gaining a competitive advantage. Productive efficiency is the outcome of specialization because native resources are used effectively to produce a goods or a services that foreign countries need more resources to produce or they cannot produce at all.

Specialization is an important concept within both microeconomics and macroeconomics, but there are fundamental differences between how the two economic studies understand specialization.

Microeconomic Specialization

This refers to an individual's specialization with in the workforce i.e. a person's chosen profession is their area of specialization. It means right man in right job. Within an organization or company, efficiency dictates that individuals be assigned specific tasks that capitalize on their sets of skill. Individual specialization in a company produces a higher quality product and gives the company a competitive advantage over less efficient competitors.

Macroeconomic Specialization

International trade largely dictates specialization at the macroeconomic level. Just as individuals or company will specialize to fit a market niche,countries often specialize in a particular area to fulfil a global need giving them a comparative advantage over international trade competitors.

Advantages of Specialization

1. **Large scale production:** Due to specialization,a country is capable to produce

excessive amount of goods with higher quality and sell them to the foreign countries from where the exporters get the benefits. For example, if many different cell phone companies make every single part they require, it slows down their production. Specialization means that in our global economy we have many different companies making specific parts that are then acquired by other companies to assemble their products, like cell phones. Specialization leads to a much more efficient supply chain and opens up greater production possibility.

2. **Benefit to consumer:** Consumers have access to a greater variety of higher quality products. Consumers can be benefited from the variety of international product because consumer can get such a quality product at cheaper price.
3. **Expansion of market:** Specialization increases the size of the market offering opportunities for economies of scale. Market can be expanded internationally. When specialization is achieved in production, the produced product easily enter in the international market.
4. **Competition and lower prices:** Increased competition acts as an incentive to minimize costs, keep prices down and therefore maintains low inflation .In the situation of inflation,a country can import the specialized product from the international market and control the price level.
5. **Decrease in production cost:** If different companies specialize in making one product or one component of a product, they are able to also work to reduce production costs by producing as a larger scale and selling more units at a lower profit margin.
6. **Optimum Utilization of Resources:** Due to specialization, countries concentrate on the production of goods which is best fitted or realize the comparative cost advantages. This ensures the optimum utilization of resources .Without specialization, resources cannot be utilized properly.

Disadvantages of Specialization

1. **Danger of unemployment:** Even though national level specialization usually creates more jobs, there is a risk of certain types of structural unemployment to occur. As the country moves towards specialization, the workers in the declining industries may not find suitable work.
2. **Over-exploitation of resources:** Output maybe increased by over-exploiting resources. In this case todays output is increased at the cost of the future generations.
3. **Negative externalities/ social cost:** There could be external costs like damage to the environment which is a matter of concern.
4. **Economic dependency:** Due to specialization, a country does not produce all the necessary goods rather, it imports the goods and services which are not possible to produce economically. This situation creates economic dependency.

5. **Hamper on economic development:** In some cases, specialization is regarded as obstacle on the economic development. Due to specialization domestic products cannot compete with specialized foreign products. As a result, domestic industries may close which hinders economic development.

Evaluate Yourself

1. What do you mean by specialization?
2. Write the advantages and disadvantages of specialization.

Economic System

An economic system is a system of production, resource allocation and distribution of goods and services within a society or a given geographical area. It includes the combination of the various institutions, agencies, entities, decision making processes and patterns of consumptions that comprise the economic structure of given community. The study of economic systems includes how these various agencies and institutions are linked to one another, how information flows between them, and the social relations within the system. Economic system looks at the following basic questions:

- What to produce?
- How to produce?
- For whom to produce?
- How change is going to be effected and accommodated?
- These are the fundamental problems of the economy.

The structure of economy is system seeks to answer these fundamental questions. The system sets the rules of play for all the players in an economy, and defines how they can interact with each other. The study of economic systems looks at how their various components are interlinked, how information flows between them, and their social relations, including the structure of management and property rights.

The economic problem that every nation faces is what to produce, how to produce and for whom to produce. But the solution varies according to economic system. There are three types of economic system practised in the world for the solution of problems. They are:

- Capitalist economy/Market economy
- Socialist economy /Planned economy
- Mixed economy

Capitalist Economy/Market Economy

Capitalist economy is the most prominent economic system in the world. Under this economic system, means of production and property are owned by individuals and companies. The government has limited role for the functioning of the economy. Under this system, economy is governed by the market mechanism.

Market mechanism is defined as the process whereby all the decisions are made by the interaction between two opposite market forces i.e. demand and supply. Capitalist economy is a liberal economy. This economic system is also called market economy. Market economy is a revised version of capitalist economy. There is no direct government intervention other than to control monopolistic practices in the economy. This system is the most predominant in the current global economy. USA, UK, Germany, Japan, Singapore all are examples of capitalist economy.

Capitalism is a widely adopted economic system in which there is private ownership of the means of production. Modern capitalist systems usually include a market-oriented economy, in which the production and pricing of goods, as well as the income of individuals, are dictated to a greater extent by market forces resulting from interactions between private businesses and individuals. Capitalism is built on the concepts of private property, profit motive, and market competition.

Features of Capitalist Economy

a. **Two-Class System:** Historically, capitalist society was characterized by the split between two classes of individuals: the capitalist class, which owns the means for producing and distributing goods (the owners), and the working class, who sell their labor to the capitalist class in exchange for wages.

   The economy is run by the individuals (or corporations) who own and operate companies and make decisions as to the use of resources. But there exists a "division of labor" that allows for specialization, typically occurring through education and training, further breaking down the two-class system into sub-classes (e.g., the middle class).

b. **Private Ownership:** In capitalist economies, there exists a private sector that owns, property, plant, and equipment. The owners of production decide how to run their businesses, how much to produce, and how many people to hire.

c. **Profit Motive:** Companies exist to make a profit. The motive for all companies is to make and sell goods and services only for profits. Companies do not exist solely to satisfy people's needs. The profit motive leads to the accumulation of wealth and is a prime factor in providing individuals to work and innovate. With an expectation of making profit, people are willing to take risk by participating in different types of business. They involve in different economic activities with an objective of earning benefit.

d. **Minimal Government Intervention:** Capitalist societies believe markets should be left alone to operate without government intervention, an idea known as laissez-faire. True capitalists believe that a free market will always create the right amount of supply to meet demand and all prices will adjust accordingly.

   Free-market capitalists also believe that any government intervention, for example through regulations or labor laws, hinders the efficiency of a free market economy, leading to inefficiencies that hurt both society and the economy. However, a completely government-free capitalist society exists in theory, only.

e. **Great scope of Competition:** True capitalism needs a competitive market. Without competition, monopolies exist, and instead of the market setting the prices for goods and services, the seller is the price setter, which is against the conditions of capitalism. Under capitalist economy, competition takes place among the producers to maintain the quality of the product and gain a larger portion of the market share for their given product or service. They compete through advertisements, promotion, gift schemes, loan facilities, delivery service etc. Consumer also compete for their benefits by purchasing quality products at low prices.

Socialist Economy/Planned Economy

In the 1840s a new type of economic theory emerged in the literacy circles known as "The communist manifesto" written by Karl Marks with Frederic Engels. They propounded a new and unique concept of an economy of a country. This came to be known as a socialist economy. This system is exactly opposite to that of capitalist economy. In such an economy, all the factors of production are owned by the state. All the citizens get the benefit from the goods and services on the basis of equal right. This type of economy is also known as planned economy or command economy. Government plays an active role for the mobilization of all the productive resources in the country. In this economic system, private companies and individuals are not allowed to produce the goods and services. And the production occurs as per the needs of society and at the command of the state or the planning authority. All the decisions are made by the government and resources are mobilized through the planning commission. There is no role of demand and supply in the functioning of the economy. The ultimate goal of socialist economy is to ensure the classless society. It aims to have an equal distribution of income and wealth among all its citizens.

Unlike in a capitalist economy, a socialist economy is not driven by the laws of supply and demand. Instead, all economic activities – production, distribution, exchange and consumption – are planned and coordinated by a central planning authority, which is usually by the government.

Features of Socialist Economy

a. **Public Ownership:** This is the core tenet of socialism. In a socialist economy, the means of production and distribution are owned, controlled and regulated by the public, either through the state or through cooperatives. The basic motive is not to use the means of production for profit, but rather for the interest of social welfare.

b. **Economic Planning**: Unlike in a capitalist economy, a socialist economy is not driven by the laws of supply and demand. Instead, all economic activities – production, distribution, exchange and consumption – are planned and coordinated by a central planning authority, which is usually the government

   A socialist economy relies on the central planning authority for distribution of wealth, instead of relying on market forces.

c. **Class-less Society:** Socialism rose as an opposition to the economic inequality brought about by early capitalism. As such, it aims for a class-less society where there are no classes. Ideally, all the people within a socialist economy should have economic equality.

d. **Provision of Basic Needs:** In a socialist economy, the basic needs – food, shelter, clothing, education, health and employment – are provided by the government without any discrimination. This is one of the greatest advantages of socialism. Provision of basic needs by the government can, however, result in the masses thinking that they cannot survive without the government, creating a perfect environment for the rise of authoritarian governments.

   In a socialist economy, there is no competition in the market since the state is the sole entrepreneur. The state only focuses on provision of necessities, which results in limited consumer choice.

e. **Price Control:** In socialist economies, the prices of products are controlled and regulated by the state. The government sets both the market price for consumer goods and the accounting price which helps managers make decisions about productions of goods.

f. **Social Welfare:** Another major reason behind the rise of socialism was to protect the working class from exploitation. Under socialist systems, there is no exploitation.

   The state takes care of the working class through employment protection, minimum wages and trade union recognition rights

Mixed Economy

Mixed economy is the combination of both socialist economy and capitalist economy. So it follows both price mechanism and central economic planning. Both the private sectors and government play vital role for the mobilization of resources. Means of production are owned by individuals private companies and public sector under this system, the private sector is actively involved in the production of goods and services on the one hand and the government is also involved in the essential mobilization of its limited resources through the national planning commission. This type of economy was introduced by J.M. Keynes after the Great Depression of 1930s and most of the least developed and developing countries at present are adopting this economic system. The idea behind this system is to tackle the demerits of both capitalist economy and a socialist economy and come up with unique system. It appreciate the freedom of private ownership of property and resources and the role of the government as well.

A mixed economic system is a system that combines aspects of both capitalism and socialism. A mixed economic system protects private property and allows a level of economic freedom in the use of capital, but also allows for governments to interfere in economic activities in order to achieve social aims.

Features of Mixed Economy

a. **Co-existence of the Private and Public Sectors:** Co-existence of the private and public sectors is the outstanding feature of mixed economy. In mixed economy, both public sector as well as private sector industries will be functioning. Certain industries will be in the public sector and certain industries in the private sector. Private individuals and firms own private sector industries. Profit will be the primary motive of private sector industries. In public sector, industries are owned and managed by the Government. Public industries will also have profit motive but that too for the promotion of social welfare.

b. **Existence of Joint Sector:** Joint sector is one where both Government and private individuals establish an organization jointly by contributing the necessary capital. Economic activities are conducted through the joint efforts of government, private sector and cooperatives.

c. **Regulation of Private Sector:** Under mixed economy, Government exercises strict control and regulation over private sector industries. The government regulates and controls the private sector through the formulation of various policies, plans programs, laws and their effective implementation.

d. **Planned Economy:** The entire economic structure is subject to the planning of the Government. Mixed economy is a planned economy. The planning commission decides the objectives, targets and allocation of resources etc.

e. **Private Property:** Market economy ensures the ownership of private property. Under mixed economy, private firms and individuals have right to own and use property. All the individuals have a right to sell personal property, to change ownership and to make profit from their property.

f. **Provision of Social Security:** Under mixed economy, Government takes steps to provide social security. Arrangement are made for the social security of the workers even in private sector.

g. **Motive of Business Concerns:** The motive of the business concerns is profit but coupled with the objective of social welfare. Private sectors are involved in different business activities with an objective of earning profit. Some of the profits earned in this way are spent by them for the fulfilment of social responsibility.

h. **Reduction of Inequalities of Income and Wealth:** The Government takes steps to reduce inequalities of income and wealth. For this, government implements progressive tax system an spends huge amount of money every year in favour of poor people and conducts the participatory development programs in the rural areas.

i. **Complete Economic Freedom:** There is complete economic freedom in mixed economy. Hence, the consumer is free to buy any commodity they like. Private entrepreneurs and business have the freedom to earn income by mobilizing their wealth as their desires. They are free to make decision about what to produce? How to produce? and for whom to produce?

Evaluate Yourself

1. Define Economic system
2. What are the types of economic system?

SUMMARY

The Economic Problem: Scarcity and Choice

Scarcity refers to the limitedness of resources in relation to the human demand. However, scarce resources have alternative uses. Scarcity means availability of less resources with respect to human wants. Choice refers to the selection of the best possible alternatives from available scares resources.

Concept of Opportunity Cost

Opportunity cost is the expected returns from the next best and most profitable alternative use of the resources forgone.

The Concept of Distribution of Resources

- Resource distribution refers to the distribution of resources, including land, water, minerals, wealth in general among corresponding geographic entities. It is the geographic occurrence of resources on earth.

Issues related to resource distribution

1. What to Produce?
2. How to Produce?
3. For Whom to Produce?
4. How to Attain Full Employment?
5. How to Achieve Economic Growth?

Concept of Production Possibility Curve

Production possibility curve is the graphical or diagrammatic representation of the best possible combinations that an economy can produce by using the available resources.

Assumptions of PPC

- The economy is producing two goods i.e. consumer goods and capital goods
- The economy is operating at full employment and achieving full production.
- Factors of production are given and fixed.
- The state of technology does not change
- Time period is given

Size of Production Possibility Curve

Due to the increasing marginal rate of product transformations the PPC is cancave to the origin.

Shift in Production Possibility Curve

Outward/rightward shift:

1. Increase in labour force
2. Increase in raw materials

3. Increase in capital
4. Improvement in technology

Inward/leftward shift

1. Decrease in labour force
2. Decrease in raw materials
3. Decrease in capital
4. Primitive technology

Division of Labor

Division of labor is the production process in which a worker or a group of workers is assigned a specialized task in order to increase efficiency and productivity.

Forms of Division of Labor

1. Simple division of labor/social division of labor
2. Complex division of labor
3. Territorial division of labor

Advantages of Division of Labor

Some of the major advantages of division of labor are as follows:

1. Increase in Productivity
2. The Right Man in Right Place
3. Increase efficiency and skill
4. Possibility of Invention
5. Saving in Time
6. Economy in the use of Tools
7. Encourage for the use of machinery
8. Cheaper Goods
9. Increase entrepreneurship

Disadvantages of Division of Labor

Some of the disadvantages of division of labor are as:

1. Monotony
2. Loss of responsibility
3. Lack of job pride
4. Reduce the mobility of labor
5. Greater interdependence
6. Possibility of over production
7. Exploitation of worker
8. Industrial disputes

Specialization

Specialization is a method of production whereby an organization focuses on the production of a limited scope of goods to gain a greater degree of efficiency.

Microeconomic Specialization

Microeconomic specialization refers to an individual's specialization with in the workforce i.e. a person's chosen profession is their area of specialization. It means right man in right job.

Macroeconomic Specialization

International trade largely dictates specialization at the macroeconomic level. Just as individuals or company will specialize to fit a market niche,countries often specialize in a particular area to fulfil a global need giving them a comparative advantage over international trade competitors.

Advantages of Specialization

1. Large scale production
2. Benefit to consumer

3. Expansion of market
4. Competition and lower prices:
5. Decrease in production cost
6. Optimum Utilization of Resources

Disadvantages of Specialization

1. Danger of unemployment
2. Over-exploitation of resources
3. Negative externalities/ social cost
4. Economic dependency
5. Hamper on economic development

Economic System

An economic system is a system of production, resource allocation and distribution of goods and services within a society or a given geographical area. It includes the combination of the various institutions, agencies, entities, decision making processes and patterns of consumptions that comprise the economic structure of given community.

Capitalist Economy/Market Economy

Capitalist economy is the most prominent economic system in the world. Under this economic system, means of production and property are owned by individuals and companies. The government has limited role for the functioning of the economy. Economy is governed by the market mechanism in capitalist economy.

Features of Capitalist Economy

a. Two-Class System
b. Private Ownership
c. Profit Motive
d. Minimal Government Intervention
e. Great scope of Competition

Socialist Economy/Planned Economy

Socialist economy is an economic system in which all the decision are made by the government and resources are mobilized through the planning commission.

Features of Socialist Economy

a. Public Ownership
b. Economic Planning
c. Class-less Society
d. Provision of Basic Need
e. Price Control
f. Social Welfare

Mixed Economy

A mixed economic system is a system that combines better aspects of both capitalism and socialism. A mixed economic system protects private property and allows a level of economic freedom in the use of capital, but also allows for governments to interfere in economic activities in order to achieve social aims.

Features of Mixed Economy

a. Co-existence of the Private and Public Sectors
b. Existence of Joint Sector
c. Regulation of Private Sector
d. Planned Economy
e. Private Property
f. Provision of Social Security
g. Motive of Business Concerns
h. Reduction of Inequalities of Income and Wealth
i. Complete Economic Freedom

VERY SHORT QUESTIONS – ANSWERS

1. Define scarcity?

Scarcity means availability of less resources with respect to human wants. All the means are scarce in relation to human wants. Scarce resources have alternative uses. Men always attempt to exploit these scarce resources for optimum satisfaction.

2. What does choice refer to?

Choice refers to the selection of the best possible alternatives from scarce resources. The problem of choice appears due to the greater demand for resource than supply of resource.

3. What is opportunity cost?

Opportunity cost is the forgone cost you would otherwise get. It is what you have to give up to get something.

4. Define allocation of resources.

Allocation of resources stands for the distribution of resources among the competing uses. It implies the utilization of resources in certain or several uses. Resources are scarce and have alternative uses.

5. What are the aspects related with resource distribution?

The concept of resource distribution has the following aspects:

a. What to produce?
b. How to produce?
c. For whom to produce?
d. How to achieve high economic growth?
e. How to attain full employment?

6. Give the meaning of PPC.

PPC stands for production possibility curve. A curve which shows the production possibilities that can be produced with given resources and technology is called production possibility curve.

7. Define division of labour.

Division of labour is a production process in which a worker or a group of workers is assigned a specialized task in order to increase efficiency and productivity.

8. What are the form of division of labour ?

The major forms of division of labour are as follows:

a. Simple division of labor/social division of labor
b. Complex division of labor
c. Territorial division of labor

9. List out any four advantages of Division of Labor?

Some of the major advantages of division of labor are as follows:

1. Increase in Productivity
2. The Right Man in Right Place
3. Increase efficiency and skill
4. Possibility of Invention

10. List out any four disadvantages of Division of Labor?

Some of the disadvantages of division of labor are as:

1. Monotony
2. Loss of responsibility
3. Lack of job pride
4. Reduce the mobility of labor

10. Define specialization.

Specialization is a method of production whereby an organization focuses on the production of a limited scope of goods to gain a greater degree of efficiency.

11. What is capitalist economy?

Capitalist economy is an economic system in which means of production and property are owned by individuals and companies and the economy is governed by the market mechanism.

12. What is socialist economy?

↳ Socialist economy is an economic system in which all the decision are made by the government and resources are mobilized through the planning commission.

13. What is mixed economy?

↳ A mixed economic system is a system that combines better aspects of both capitalism and socialism. A mixed economic system protects private property and allows a level of economic freedom in the use of capital, but also allows for governments to interfere in economic activities in order to achieve social aims.

Exercise

■ Very Short Answer-Questions.

1. Define scarcity?
2. What does choice refer to?
3. What is opportunity cost?
4. Define allocation of resources.
5. Give the meaning of PPC.
6. What is division of labour ?
7. What is specialization ?
8. What is capitalist economy?
9. What is socialist economy?
10. What is mixed economy?

■ Short Answer-Questions.

1. Write short note on scarcity and choice.
2. What do you mean by scarcity?
3. Write a short note on distribution of resource.
4. What is distribution of resource? Explain.
5. What does scarcity mean in economics?
6. Explain the features of capitalist economy/market economy.
7. Explain the features of socialist economy.
8. Explain the features of mixed economy.

■ Long Answer-Questions.

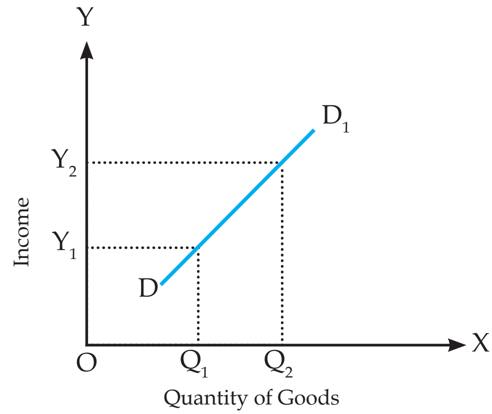
1. Illustrate the concept of production possibility curve. Why does it expand outwards?
2. What is division of labour ? Explain the merits and demerits of division of labour.
3. What is specialization ? Explain its merits and demerits.

Project Work

1. Visit any business firm in your community. Observe and find the examples of division of labour or specialization. Collect pictures and present them in class room.
2. Visit any industry in your community, prepare the questionnaire, take the interview, and collect the information and present the benefit of division of labour and specialization.

UNIT 2

Market and Revenue Curves



Learning Outcomes

- To explain the meaning of the market,
- To explain the types of perfect competition and monopoly market,
- To explain the meaning of total, average and marginal revenue,
- To derive the total revenue (TR), average revenue (AR) and marginal revenue (MR)
- To identify and present different structure of markets at the local level,
- To gain and present practical knowledge of the market,
- To derive revenue curve in different markets with statistical examples.

Concept of Market

In traditional sense, market is a place where goods and services are sold & bought by the sellers & consumers respectively.

In ordinary sense market is the place of transaction of goods and services among the buyers and sellers. Precisely in economics, market is the mechanism for buying and selling of goods and services.

In modern sense, market is the place as well as a mechanism through which goods and services are transacted between two or more parties.

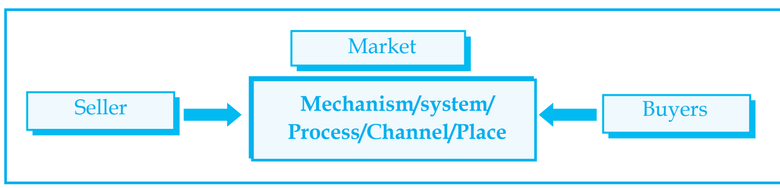
In other words, it is a place as well as a mechanism through which goods and services are transacted between two or more parties. Under this mechanism, a firm sells its product to the buyers, and buyers purchase the product supplied by the firms.

Suppliers (sellers) and demanders (buyers) are the major driving forces of a market.

Sellers and buyers are two driving forces to form a market. These two forces play major role for determining the price and quantity of the product to be traded. (Product is traded among their consumers irrespective of place and their physical presence.) It means, there may not be physical existence of seller and buyer. Rather, goods and services flow from sellers to buyers around the world area through the different channels/systems.

Perfect competition and monopoly are the two extreme forms of market. It is because; these are not existed in the real world.

Market is a mechanism/system/process/channel/place that establishes relationship between buyers and sellers.



There are various models of market developed by economists depending upon the number of firms, extent of power in the market, price, types of product etc. The models are developed to understand the process of the price and output determination. The major models developed are perfect competition and imperfect market structures. Under imperfect market structure-monopoly, monopolistic competition and oligopoly are studied.

Meaning of Perfect Competition Market

Perfect competition is a market structure with large number of buyers and sellers and free entry and exit of firms.

Perfect competition is the form of market in which large number of firms produce and sell homogeneous products to the large number of buyers at fixed price determined by the market. The firms are supposed to be price taker. They accept the price which is determined by two market forces viz. demand and supply.

According to the ***A. Koutsoyiannis,*** *"Perfect competition is a market structure characterized by a complete absence of rivalry among the individual firms."*

According to ***N. Gregory Mankiw,*** *"Competitive market, a market with many buyers and sellers trading identical products so that each buyer and seller is a price taker."*

Since the perfect competition has several hypothetical features, it does not exist in the real world.

By economic definition, the perfect competition market has opposite meaning than the meaning of practical use in business world. There are so large number of firms (sellers) and buyers that the activities of an individual firm do not affect any other firms and the market as a whole. It means, entry and exit of an individual firm does not affect the market significantly.

Assumptions/Features of Perfect Competition Market

Features of Perfect Competition
1. Large number of sellers and buyers
2. Homogeneous product
3. Free entry and exit of firms
4. Profit maximization goal
5. No government regulation
6. Free mobility of factors of production
7. Perfect knowledge about market

The model of perfect competition market is based on the following assumptions.

1. **Large number of sellers and buyers:** There are large number of firms producing homogeneous products in the industry (market) so that an individual firm, supplies only a small portion of total supply. Decision taken or change in price by a firm, can't influence the functioning of the market. Similarly, the number of buyers is also large. An individual buyer can not influence the functioning of the market.
2. **Homogeneous product:** The industry is defined as the totality of all the individual firms. All the firms produce identical product or service and sell at a given price. The product produced by different firms is identical in quality size, weight, taste, flavor etc.
3. **Free entry and exit of firms:** There is no barrier for entry and exit of firms in the industry. It means there is freedom for firms for in and out of industry. However entry and exit may take time. If existing firms are getting profit, new firms enter and if the firms bear loss, they exit from the industry.
4. **Profit maximization goal:** All the firms have profit maximization goal in the industry. In general, profit of firms depends upon the cost condition.
5. **No government regulation:** The government does not intervene the market through any means such as tariff, subsidies, rationing of product.

   Above mentioned assumptions are sufficient for the firms to be a price-taker and it is called pure competition market structure. This concept is different from 'prefect competition'. The concept of perfect competition requires the following two additional assumptions.
6. **Free mobility of factors of production:** All the factors of production are movable from one firm to another throughout the economy. The workers also are movable in the sense that skill is learnt easily and no factors are monopolized.
7. **Perfect knowledge about market:** Under perfect competition, both sellers and buyers are assumed to have a perfect knowledge about the market. Information is freely available. So, the information about quality, price, and future changes are easily predictable. It means there is no uncertainty in business environment as well.

Evaluate Yourself

1. Define perfect competition market.
2. What are features of perfect competition market ?

Monopoly Market

Monopoly is the market structure witone producer/seller who has full control over the determination of price and output that he produced.

Monopoly is the market structure where only one seller or producer is selling his product in the market to the large number of buyers. In this market, there is no close substitute of the commodity that the seller sells. Since there is only one producer, the producer is called the monopolist. A monopolist has full control over the supply of commodity and setting price as per his wish. Thus, he is called the price maker. On the other hand, buyers are treated as price takers. Buyers have to purchase the product at the price set by the producer.

According to **D. Salvatore,** *"Pure monopoly is the form of market organization in which a single firm sells a commodity for which there are no close substitutes".*

According to **A. Koutsoyiannis,** *Monopoly is a market structure in which there is single seller, there are no close substitute for the commodity it produces and there are barriers to entry.*

Except in the goods of public utilities, monopoly market may not exist in the real world.

Monopoly market may exist in goods of public utilities like drinking water supply, electricity etc. Since there exists only one firm, there is no difference between firm and industry.

Features of Monopoly

Features of Monopoly
1. Single seller and large number of buyers
2. No close substitutes
3. No entry of new firms
4. Firms are price maker
5. No difference between firm and industry
6. Possibility of price discrimination

1. **Single seller and large number of buyers:** Existence of single firm is the main feature of monopoly. However, number of buyers is large. The monopoly firm may be in the form of joint-stock company and it may control the market.
2. **No close substitutes:** There is no close substitute for the product produced by the monopolist. It means that there are no other related goods which can easily substitute the product of the monopolist.
3. **No entry of new firms:** The entry of new firms in the market is restricted by legal provision or made impossible by some mechanisms. If new firms enter in the industry, the concept of monopoly market is broken down.
4. **Firm is a price maker:** The monopolist is considered as a price maker, because the firm itself determines the price of its product. The firm may sell more quantity of the product at low price and lesser quantity at a higher price. So, the firm faces downward sloping demand curve.
5. **No difference between firm and industry:** Since there is only one firm in the market, the firm itself is an industry. Therefore, the concept of firms and industry is automatically eliminated.

6. **Possibility of price discrimination:** There is possibility of price discrimination under monopoly. It means that a monopolist can sell different units of his product at different prices to different buyers.

Evaluate Yourself

1. Define monopoly market.
2. What are the features of monopoly?

Imperfect Competitions

Monopolistic and oligopoly market structure comes under the imperfect competition. Brief descriptions of each of them are as follows:

Monopolistic Competition

Monopolistic competition refers to the market structure where there are many firms selling a slightly differentiated products.

The market structure in which large number of sellers sells heterogeneous or differentiated product (the close substitute goods but not perfect substitute goods) to the large number of buyers is called monopolistic competition. In this market, the firms are freely entered into the market and exit from the market in long run. In these types of market structure, firms sell heterogeneous or differentiated products (products that are similar but not identical). It is blend of competition and monopoly market structure. It is most common market structure in the retail and service sectors of the economy.

Examples:

- Gasoline stations
- Barber shops
- Grocery stores
- Liquor stores
- Restaurants
- Cotton textiles

According to **Carter and Snavely,** "Monopolistic competition is the market having large number of sellers with differentiated product but close substitutes and absence of restriction on entry and exit of firm."

In the words of **R. Lipsey and A. Cristal,** "Monopolistic competition refers to a market in which there are many firms and each sells a single differentiated product. Since each firm's product is somewhat different from those of its competitors, (each faces a negatively sloped demand curve for its product.)"

The credibility for developing the theory of monopolistic competition goes to the US economists Edward Chamberlin and J. Robinson.

The concept of monopolistic competition was introduced by E. H. Chamberlin and Joan Robinson independently in that situation when only two extreme situations of perfect competition and monopoly were considered as two mutually exclusive alternatives. Furthermore, economists were dissatisfied by using the perfect competition as the analytical model of business behaviour.

Monopolistic competition is the market having the mixed features of monopoly and perfect competition.

The monopolistic market is a form of imperfect competition. Imperfect competition refers to the market structures that falls between perfect competition and pure monopoly. So, the monopolistic markets have some features of perfect competition and some features of monopoly. It is similar to perfect competition market because there are large number of buyers and sellers, and there is free entry and exit of firms. Again, it is similar to monopoly because it has market power to determine price of own product due to product differentiation.

Characteristics of Monopolistic Competition

The main characteristics of monopolistic competition are as follows:

Characteristics of Monopolistic Competition

1. Product differentiation
2. Large number of buyers and sellers
3. Independent decision making
4. Market power
5. Free entry and exit of the firm
6. Expenditure on advertisement and other selling cost
7. Imperfect knowledge about the market
8. Goal of the firm is profit maximization

1. **Product differentiation:** In monopolistic competition, firms produce the goods which are best described as close but imperfect substitutes. The goods perform the same basic functions but have differences in qualities such as type, style, quality, reputation, appearance, and location that tend to distinguish them from each other.
2. **Large number of buyers and sellers:** There exist large numbers of buyers in monopolistic market and an individual buyer cannot influence the market price. There exist many firms those are known as 'product group'. A 'product group' is a collection of firms that produce similar products. It is the similar concept of 'industry' of perfect competition but the products are differentiated in the 'group'.
3. **Independent decision making:** Each firm independently sets the terms of exchange for its product. The firm gives no consideration to what effect its decision may have on competitors. Any strategy of the firm has such a negligible effect on the overall market demand that the firm can act without fear of high competition from the side of competitors. In other words, each firm feels free to set prices as if it was a monopoly, rather than an oligopoly.
4. **Market power:** The firm of monopolistic competition has some degree of market power. Market power means that the firm has control over the terms and conditions of exchange. The firm can raise its prices without losing all its customers. The firm can also lower prices without throat-cut price war with competitors. The source of the firms' market power is not barriers to entry but the firm gets market power from product differentiation that makes the product unique.
5. **Free entry and exit of the firm:** The firm can enter easily in monopolistic market if there is excess profit. Any firms which are unable to cover its costs can leave the group easily.
6. **Importance of advertisement and other selling cost:** The important characteristics of monopolistic competition is that firms incur a large number of expenditure on advertisement and other selling costs which helps to promote the sales in market. The advertisement and other selling costs by a firm change the demand for its product as well as its cost. Like the adjustment of price and

product, a seller under monopolistic competition will also adjust the amount of advertisement expenditure so as to maximize his profit.

7. **Imperfect knowledge about the market:** No sellers or buyers have complete market information, like market demand or market supply even the price.
8. **Goal of the firm is profit maximization:** The sole objective of all the firms of monopolistic competition market is to maximize profit. Other objectives of firm are not entertained in such market.

Evaluate Yourself

1. Define monopolistic competition market.
2. Mention the features of monopolistic competition.

Concept of Oligopoly

In contrast to a monopoly and monopolistic markets, an oligopolistic market possesses a few competitors.

Oligopoly is the market structure in which there are a few seller selling homogeneous or differentiated products to few buyers. However, economists do not specify what number of sellers makes the market oligopoly.

A market structure in which there are both homogeneous and differentiated products of few firms/sellers is known as oligopoly.

Oligopoly market is a form of imperfect market and most of the markets in the world are monopolistic market. Duopoly is a type of oligopoly in which only two firms exist in the market. If oligopoly firms sell a homogenous product, it is called pure or homogeneous oligopoly. And, if firms of an oligopoly industry sell differentiated products, it is called differentiated or heterogeneous oligopoly. While there are many firms selling a homogeneous product under perfect competition, many firms selling a differentiated product in monopolistic competition and only a single firm selling a product with no good substitute under monopoly, under oligopoly there are few sellers of homogeneous or differentiated products.

According to ***Prof. Stigler,*** *"Oligopoly is a situation in which a firm bases its market policy, in part, on the expected behaviour of a few close rivals."*

Ferguson opines, *"Oligopoly is said to exist when more than one seller is in the market, but when the number is not so large as to render negligible contribution of each."*

Oligopoly is a market structure with few firms/sellers producing or selling either homogeneous or close substitutes.

Because there are only a few firms selling a homogeneous or differentiated products in oligopoly markets, the action of each firm affects the other firms in the industry, and vice versa. In other words, the decisions of one firm influence the decisions of other firms. So, oligopoly requires strategic thinking, unlike perfect competition, monopoly, and monopolistic competition.

Types of Oligopoly

In oligopoly markets, there is a conflict between cooperation and self-interest. Depending on such behavior of firms, the oligopoly market is divided into two types:

1. **Collusive Oligoposly:** The collusive firms develop some forms of agreement among them within the market for promotion of common interest like

maximizing profit, reducing uncertainty, avoiding price war and other throat-cut competition. Such agreements may be formal (open) or informal (secret). Both the agreements are illegal in many countries. Competition promotion rules and regulation restricts such agreement and if some firms are found practicing such agreement, they are legally punishable.

2. **Non-collusive Oligopoly:** The non-collusive firms make their business decision independently. They do not make any agreement among them rather they compete each other. They calculate optimal moves of rival firm and develop their strategy to compete in the market.

Characteristics of Oligopoly

Let us now look at the important characteristics of oligopoly market.

Characteristics of Oligopoly
1. Few number of sellers
2. Interdependence of decision making
3. Importance of advertising and selling costs
4. Barriers to entry
5. Indeterminate price and output

1. **Few number of sellers:** There is a small number of sellers under oligopoly. How small the number of sellers is not given precisely: it depends largely on the size of the market. Conceptually, however, the number of sellers is so small that the market share of each firm is so large that a single firm can influence the market price and the business strategy of its rival firms. The number may vary from industry to industry.
2. **Interdependence of decision making:** The characteristics of fewness of firms under oligopoly brings the firms in keen competition with each other. The competition between the firms takes the form of action, reaction and counteraction in the absence of collusion between the firms. Since the number of firms in the industry is small, the business decision and strategy of each firm in respect of pricing, advertising, product modification is closely watched by the rival firms and it brings retaliatory actions.
3. **Importance of advertising and selling costs:** The various firms have to employ various aggressive and defensive marketing weapons to gain a greater share in the market or to prevent a fall in the share. For this various firms have to incur a good deal of costs on advertising and other measures of sales promotion. Therefore, there is a great importance of advertising and selling costs in conditions of market situation characterized by oligopoly.
4. **Barriers to entry:** Barriers to entry to an oligopoly industry arise due to such market conditions as (i) huge investment requirement to match the production capacity of the existing ones, (ii) economies of scale and absolute cost advantage enjoyed by the existing firms, (iii) strong consumer loyalty to the products of the established firms based on their quality and service and (iv) resistance by the established firms by price cutting. The price under collusive oligopoly may be set at a sufficiently lower level to prevent the entry of new firms into the industry.
5. **Uncertainty:** There is lot of uncertainty in case of non-collusive oligopoly. Due to this uncertainty, every firm is confronted with an indeterminate demand

curve. This further results in an indeterminate level of price and output. But in collusive oligopoly, the price and output are fixed. Once such a price is established, the firm will stick to it, whatever the consequence. It will not like to experiment with other 'prices' because that will create further uncertainty as to the reactions of the rival firms.

Evaluate Yourself

1. Define oligopoly.
2. What are the characteristics of oligopoly?

Concept of Revenue

Revenue is the income of a firm received by selling its products.

Revenue is the income of a firm received by selling its products. In other words, revenue is the sales receipt of a firm obtained by selling the products. Dooley states that, "The revenue of a firm is its sales receipts or money receipts from the sale of a product."

Types/Forms of Revenue

There are three forms of revenue such as Total Revenue, Marginal Revenue and Average Revenue.

Total Revenue (TR)

Total revenue is the total value of received by sellers from selling a given amount of the product.

Total revenue is the total receipt of a firm from the sale of its product. In other words, total revenue is the summation of all marginal revenues. It is also defined as the product of price and quantity sold. Symbolically,

$$TR = P \times Q$$

Where,

TR	= Total revenue	TR	$= MR_1 + MR_2 + \ldots\ldots + MR_n$
P	= Price	MR_i	= Marginal Revenue of i^{th} product.
Q	= Quantity sold	i	= 1, 2, 3, ... n

Example : Suppose, a firm sells 15 units of a product at Rs 20 per unit, total revenue of the firm will be,

TR = P × Q = 20 × 15 = Rs. 300

Average Revenue (AR)

Average revenue is the amount earned by selling per unit of output or quantity.

Average revenue is obtained by dividing total revenue (TR) by total output sold (Q). Thus, AR is the income of per unit of product sold. Symbolically,

$$AR = \frac{TR}{Q}$$

Where,

TR = Total Revenue
Q = Total Quantity Sold
AR = Average Revenue

Example 1: Suppose, a firm's TR is Rs. 300 and output sold is 15, AR will be;

$$AR = \frac{TR}{Q}$$

$$= \frac{300}{15} = \text{Rs. } 20$$

Marginal Revenue (MR)

Marginal revenue is the additional sum to the total revenue earned by selling one more unit of output.

Marginal revenue is the change in total revenue due to the change in quantity sold by one unit. In other words, MR is addition made to the total revenue (TR) from the sale of an additional unit of commodity. Symbolically,

$$\textbf{MR} = \frac{\textbf{Change in total revenue}}{\textbf{Change in quantity sold}} = \frac{\Delta TR}{\Delta Q}$$

Alternatively,

$$\textbf{MR} = TR_n - TR_{n-1}$$

Where,

- MR = Marginal revenue
- ΔTR = Change in total revenue
- ΔQ = Change in unit sold
- TRn = Total revenue of "n^{th}" units (Previous revenue)
- TRn–1 = Total revenue of $(n–1)^{th}$ units (Last revenue)

Example 2: Suppose, TR is 300 as 15 units of product is sold, and (TR) is Rs. 316 as 16 units is sold, and then marginal revenue will be Rs. 16.

Here,

$$MR = \frac{\Delta TR}{\Delta Q} = \frac{TR_1 - TR_0}{Q_1 - Q_0} = \frac{316 - 300}{16 - 15} = \frac{16}{1} = 16$$

Alternatively,

$$MR = TR_n - TR_n - 1 = 316 - 300 = 16$$

Derivation of AR and MR Curves from TR Curve under Perfect Competition

Perfect competition is the market structure characterized by no rivalry among the competitive firms due to the very large numbers of firms where influence of a single firm is very insignificant in the market.

Perfect competition market is the market structure characterized by a large number of sellers/firms and buyers. Under this market, the firms produce homogeneous product. They sell their products to the consumers at a given price (constant price) which is determined by the forces of demand and supply in the market. Since the firms accept the price determined by market demand and supply, they are called 'price-taker'.

Price Taker

Under perfect competition firms are assumed as the price taker because they follow the price determined by two market forces- demand and supply.

The TR, AR and MR curves under perfect competition market can be derived with help of following hypothetical schedule.

Table 4.1: Total, average and marginal revenue under perfect competition

Number of units sold (Q)	Price (P)	TR = (P × Q)	AR	MR

0	10	-	-	-
1	10	10	10	10
2	10	20	10	10
3	10	30	10	10
4	10	40	10	10
5	10	50	10	10

In the given **table 4.1,** TR is increasing at a constant rate due to the constant price (Rs. 10) of the product. Due to the same reason, AR remains constant (Rs. 10) as additional units of output are sold. AR is equal to price (AR = P). The AR curve gives the demand curve for a firm. MR also remains constant at all levels of output sold, since TR increases at a constant rate (Rs. 10). Therefore, the value of MR and AR coincides. So, P = D = AR = MR.

On the basis given schedule, TR, AR and MR curve are obtained in the figure 4.1:

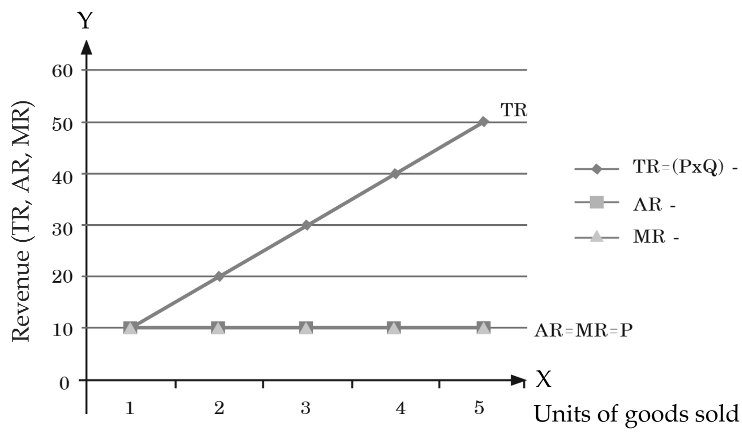


Figure 4.1: TR, AR & MR Curves under Perfect Competition

In the given **figure 4.1,** a unit of goods sold is measured on X-axis and Revenues (TR, AR, MR) are measured on Y-axis. As price is constant in perfectly competitive market, AR remains constant and it is coincided by MR. Due to this reason, TR also increases at a constant rate which causes the upward sloping TR-curve as shown in the figure. Here, AR and MR-curves are constant as Rs. 10 which does not change along with the change made in units of output sold. In this figure, when 1 unit of goods are sold TR, MR, and AR are same i.e. Rs. 10. As 2^{nd} units of goods are sold TR is increased to Rs. 20, but MR, and AR are constant at Rs. 10 and so on.

Evaluate Yourself

1. Define revenue.
2. Explain the concept of revenue with graphical illustration under perfect competition.

Derivation of AR, MR Curves from TR Curve under Monopoly Market

Monopoly is the market structure characterized by single firm producing and selling the products which have no close substitutes and also there is barrier to entry for new firms.

A monopolist is price maker.

Monopoly is the market structure in which there is a single firm and no close substitute goods for its product in the market. There is barrier to entry for new firms in the market and the monopolist has a degree of monopoly power. A monopolist itself is the industry as well because there is no other firm.

A monopolist is called 'price-maker', since it sets the price of its product. Both the AR curve and MR curve of monopoly firm are downward sloping but AR > MR. AR curve is also the demand curve for monopoly firm. The downward sloping demand curve implies that the monopolist sells more units of output by lowering the price of product and vice-versa. It means that the firm has to deduct the price of the product to sell more quantities. On the other hand, if the firm charges high price, quantity sold will be decreased. Example of monopoly firms in Nepal are Nepal Oil Corporation, Nepal Electricity Authority, Salt Trading Corporation, etc.

The relationship between TR, AR and MR can be illustrated by a table.

Table 4.2: Total, average and marginal revenue under monopoly

Number of units sold (Q)	Price (P)	TR = (P × Q)	AR	MR
1	8	8	8	8
2	7	14	7	6
3	6	18	6	4
4	5	20	5	2
5	4	20	4	0
6	3	18	3	–2

The given **table 4.2** shows that TR is increasing at a decreasing rate till the 4^{th} unit of output is sold. It is maximum when the 5^{th} unit of output is sold and begins to decline beyond that (i.e. as 6^{th} unit is sold, TR is decreased to Rs. 18 from Rs.20). The AR value declines continuously from the beginning and it coincides with the price. The AR gives the demand curve (P = AR = D) of the firm.

Marginal revenue also declines from the beginning but at a higher rate than AR. When MR is zero, TR becomes maximum at the 5^{th} unit of output-sold. When MR is negative (by –2), TR begins to decline (here Rs. 20 to Rs.18) at the 6^{th} unit of output sold. On the basis of above table, TR, MR, and AR curves are derived as follows.

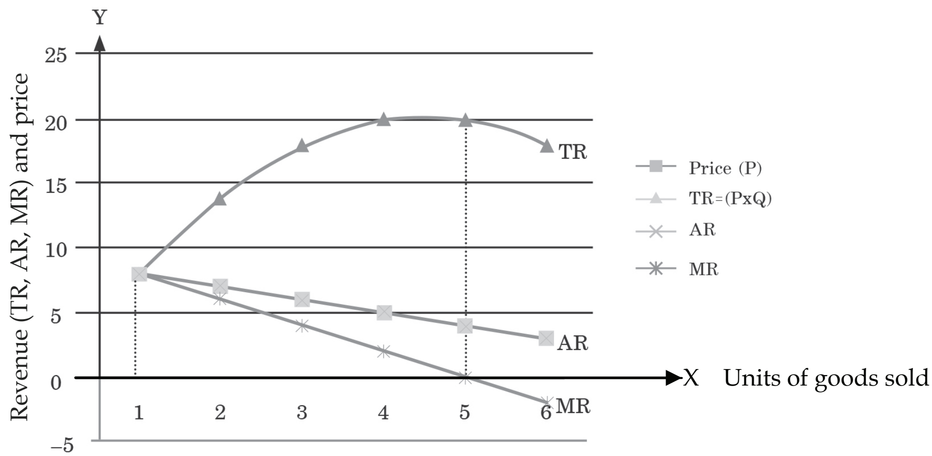


Figure 4.2: TR, AR & MR-curves Under Monopoly

In **figure 4.2,** units of goods are measured on X-axis, and Revenues and price of the product are measured on Y-axis. Since more units of output are sold by reducing the price, TR is increasing gradually at a decreasing rate, reaches at maximum point and finally starts to decline. But, both AR and MR decrease gradually from initial point of the sales as shown in the figure by AR and MR. Here, when 1 unit of goods is sold, TR, AR, MR are Rs. 8. When 2^{nd} unit of goods is sold, TR increases to Rs.14, but MR decreases to Rs.6, and AR decreases to Rs. 7. In the same course as units sold are increased to 5 units, MR has become zero (0), but TR is maximum i.e. Rs. 20, and AR is decreased to Rs. 4. As 6^{th} unit of goods is sold, MR is negative (i.e. Rs. –2). Due to this, TR is declined to Rs. 18 from Rs. 20, where, AR also decreases to Rs. 3 from Rs. 4. The TR curve, initially slopes upward and after a certain level of output sold, it slopes downward. The AR and MR curves slope downward and MR curve lies below AR curve.

Evaluate Yourself

1. Derive revenue curves under monopoly.

Worked Out Examples

Example 3: The total revenue function of a coffee producer is $R(Q) = 1500Q - 50Q^2$, where Q is the output and R(Q) is the revenue. Find the marginal revenue for an output 12.

Solution:

$R(Q) = 1500Q - 50Q^2$

Marginal revenue (MR) $= \frac{d}{dQ}(1500Q - 50Q^2)$

$= 1500 - 50 \times 2.\ Q^{2-1} = 1500 - 100Q$

When $Q = 12$, $MR = 1500 - 100 \times 12 = 300$

Example 4:

Example 5: If the demand equation is P = 10 – Q find at what level of output the TR will be maximum and what it will be ?

Solution:

Suppose the level of output that maximizes the TR is Q. With price P in the market

TR = QP

$= Q(100 - Q)$

$= 10Q - Q^2$

TR is maximum when MR = 0

Thus, making MR = 0

$$MR = \frac{d(TR)}{dQ} = 0$$

or, $\frac{d(10Q - Q^2)}{dQ} = 0$

or, $10 - 2Q = 0$

or, $2Q = 10$

$\therefore$ $Q = \frac{10}{2} = 5$ units

Substituting the value of Q in above demand equation, we get

P = 10 – Q = 10 – 5 = Rs. 5

Now,

TR = Q × P = 5 × 5 = Rs. 25

Therefore, total revenue is maximums at Rs. 25 with the sales of 5 units of goods.

Example 6: Answer the following questions from given schedule.

Quantity sold	1	2	3	4	5	6	7
Price (Rs.)	10	9	8	7	6	5	4

a. Compute Total Revenue (TR), Marginal Revenue (MR) and Average Revenue (AR).

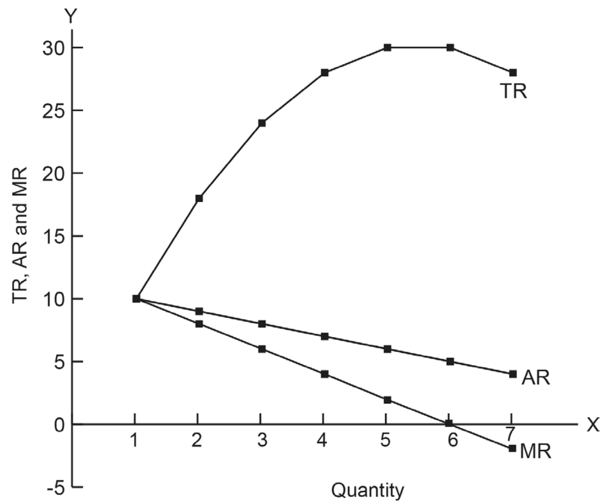
b. Draw TR, MR and AR curve.

Solution:

a. Calculation table of TR, MR and AR

Quantity Sold (Q)	Price (P)	TR (Q × P)	$MR = \frac{\Delta TR}{\Delta Q}$	$AR = \frac{TR}{Q}$
1	10	10	10	10
2	9	18	8	9
3	8	24	6	8
4	7	28	4	7
5	6	30	2	6
6	5	30	0	5
7	4	28	–2	4

b. Construction of Diagram.



Example 7: The demand function for a certain community is $P = \frac{1}{3}Q^2 - 10Q + 75$. Find the marginal revenue function and its value when Q = 4

Solution:

Let R = Revenue function

$$= P \times Q = \left(\frac{1}{3}Q^2 - 10Q + 75\right) \times Q$$

$$= \frac{1}{3}Q^3 - 10Q^2 + 75Q$$

Marginal revenue MR) $= \frac{dR}{dQ} = \frac{d}{dQ}\left(\frac{1}{3}Q^3 - 10Q^2 + 75Q\right)$

$$= \frac{1}{3} . 3Q^3 - 10 \times 2Q + 75$$

$$= Q^2 - 20Q + 75$$

When Q = 4, MR = $4^2 - 20 \times 4 + 75 = 11$.

Example 8: If the price function for commodity X is given as P = 100 – 0.2Q. Find

a. TR function
b. MR function
c. AR function
d. Quantity that maximizes total revenue

Solution:

a. Suppose the level of output that maximize the TR is Q with price in the market

$TR = P \times Q$

$= (100 - 0.2Q)Q$

$= 100Q - 0.2Q^2$

$\therefore$ $TR = 100Q - 0.2Q^2$

b. $MR = \frac{d}{dQ}(TR) = \frac{d}{dQ}(100Q - 0.2Q^2) = 100 - 0.4Q$

c. $AR = \frac{TR}{Q} = \frac{100Q - 0.2Q^2}{Q} = \frac{100Q}{Q} - \frac{0.2Q^2}{Q} = 100 - 0.2Q$

d. TR is maximum when MR = 0

$$MR = \frac{d}{dQ}(TR) = 0$$

or, $\frac{d}{dQ}(100Q - 0.2Q^2) = 0$

or, $100 - 0.4Q = 0$

or, $Q = \frac{100}{0.4} = 250$ units

Substituting the value Q in above price function

P = 100 – 0.2 × 250 = 100 – 50 = Rs. 50

Now, TR = P × Q = 250 × 50 = Rs. 12,500

Therefore, total revenue is maximum at Rs. 12,500 with sales of 250 units at price Rs. 50.

SUMMARY

Concept of Market

Market is the place or mechanism/system through which goods and services are exchanged. Suppliers (sellers) and demanders (buyers) are the major driving forces of market. Perfect competition and monopoly competition are the two major forms of market.

Meaning of Perfect Competition

Perfect competition is a market structure with large number of buyers and sellers having provision of free entry and exit of firms. Since the perfect competition has several hypothetical features, it does not exist in the real world.

Assumptions/Features of Perfect Competition

1. Large number of sellers and buyers
3. Homogeneous product
3. Free entry and exit of firms
4. Profit maximization goal
5. No government regulation
6. Free mobility of factors of production
7. Perfect knowledge about market

Monopoly

Monopoly is the market structure with only one producer/seller who has full control over the determination of price. Except in the goods of public utilities, monopoly market may not exist in the real world.

Features of Monopoly

1. Single seller and large number of buyers
2. No close substitutes
3. No entry of new firms
4. Firms are price maker
5. Firm itself is an industry
6. Possibility of price discrimination

Imperfect Competition

Monopolistic and oligopoly come under the imperfect competition. A brief description of each of them follows next.

Monopolistic Competition

Monopolistic competition refers to the market structure where there are many firms selling a slightly differentiated product. The credibility for developing the theory of monopolistic competition goes to the US economists Edward Chamberlin and J. Robinson. It is the market having the mixed features of monopoly and perfect competition markets.

Characteristics of Monopolistic Competition

1. Product Differentiation
2. Large Number of Buyers and Sellers
3. Independent Decision Making
4. Market Power
5. Free Entry and Exit of the Firm
6. Role of Advertisement and Other Selling Cost
7. Imperfect Knowledge about the Market
8. Goal of the Firm is Profit Maximization

Concept of Oligopoly

In contrast to a monopoly and monopolistic markets, an oligopolistic market possesses a few competitors. A market structure in which there are both homogeneous and differentiated products of few firms/sellers is known as oligopoly. Oligopoly is a market structure with few firms/sellers producing or selling either homogeneous or close substitutes.

Characteristic of Oligopoly

1. Few Number of Sellers
2. Interdependence of Decision Making
3. Importance of Advertising and Selling Costs
4. Barriers to Entry
5. Indeterminate Price and Output

Concept of Revenue

Revenue is the income of a firm received by selling its products.

Total revenue: It is the total value received by sellers from selling a given amount of the product. It is calculated by multiplying quantity sold (Q) by its respective price (P) i.e. $TR = P \times Q$.

Average revenue: Average revenue is the amount earned by selling per unit of output or quantity.

$$AR = \frac{TR}{Q}$$

Marginal revenue: Marginal revenue is the additional sum to the total revenue earned by selling one more unit of output.

$$MR = \frac{\Delta TR}{\Delta Q}$$

Alternatively, MR can be calculated as $TR_n - TR_{n-1}$

VERY SHORT QUESTIONS – ANSWERS

1. What is market?

Market is a place or a mechanism/system to exchange goods and services. Suppliers (sellers) and demanders (buyers) are the major driving forces of market.

2. What is meant by perfect competition?

Perfect competition is a market structure having large number of buyers and sellers making transaction of homogenous product at fixed price. Since the perfect competition has several hypothetical features, it does not exist in the real world.

3. What does monopoly market stand for?

Monopoly is the market structure where only one seller or producer is selling his product in the market to the large number of buyers. In this market, there is no close substitute of the commodity produced by the monopolist.

4. Write any two characteristics of monopoly.

↳ The two characteristics of monopoly are:

a. Single seller and large number of buyers
b. No close substitutes

5. What is monopolistic competition?

↳ Monopolistic competition refers to the market structure where there are many firms selling a slightly differentiated product. In other words, the market structure in which large number of sellers produce the close substitute goods but not perfect substitute goods is called monopolistic competition market.

6. State any two features of monopolistic market.

↳ The two features of monopolistic market are:

1. Product Differentiation
2. Large Number of Buyers and Sellers

7. Define oligopoly.

↳ Oligopoly is the market structure in which there are a few seller selling homogeneous or differentiated products. However, economists do not specify what number of sellers makes the market oligopoly.

8. What are the types of oligopoly market?

↳ The types of oligopoly on the basis of entry of firms,

a. Open oligopoly b. Closed oligopoly

On the basis of agreement

a. Collusive b. Non-collusive

9. Write any two features of oligopoly.

↳ The two features of oligopoly are as follows:

a. Few Number of Sellers
b. Interdependence of Decision Making

10. Define revenue.

↳ Revenue is the income/money of a firm received by selling its products. In other words, revenue is the sales receipts of a firm obtained by selling the products.

11. What is total revenue?

↳ It is the total value received by sellers from selling a given amount of the product.

12. State the meaning of average revenue.

↳ Average revenue is the amount earned by selling per unit of output or quantity.

i.e. $AR = \frac{TR}{Q}$

13. Define marginal revenue.

↳ Marginal revenue is the additional sum to the total revenue earned by selling one more unit of output.

i.e. $MR = \frac{\Delta TR}{\Delta Q}$

14. Features of Monopoly

a. Single seller and large number of buyers
b. No close substitutes
c. No entry of new firms
d. Firms are price maker
e. No difference between firm and industry
f. Possibility of price discrimination

15. Is monopolist a price maker ?

↳ Monopoly is the market structure characterized by single firm producing and selling the products which have no close substitutes and also there is barrier to entry for new firms. Monopolist has a right to determine the price of produced goods.

Exercise

Very Short Answer Questions

1. What is market?
2. What is meant by perfect competition?
3. Write any four features of perfect competition market.
4. What does monopoly stand for?
5. Write any four characteristics of monopoly.
6. What is monopolistic competition?
7. State any four features of monopolistic competition.
8. Define oligopoly.
9. On the basis of entry of firms, into how many categories can the oligopoly be divided?
10. Write any two features of oligopoly.
11. Define revenue.
12. What is total revenue?
13. State the meaning of average revenue.
14. Define marginal revenue.

Short Answer Questions

1. What is perfect competition? Explain its features.
2. Define monopoly. Describe its characteristics.
3. Define TR, AR and MR.
4. Explain the features of monopoly market.
5. Derive AR, MR, and TR curves under perfect competition market.
6. Derive AR, MR, and TR curves under monopoly market.

Long Answer Questions

1. What is market? Define perfect competition and monopoly. Also mention the differences between perfect competition and monopoly.
2. Derive the revenue curves under perfect competition market.
3. Derive the revenue curves under monopoly.
4. Explain the relationship between Average Revenue (AR), Marginal Revenue (MR) and Total Revenue (TR) under monopoly.
5. Define AR, MR and TR. Explain the relationship between AR and MR under monopoly market
6. What is meant by short run total cost? Illustrate them with the help of the diagram.
7. What is meant by TR, MR and AR. Show the relationship between AR and MR under perfect competition.

Numerical Questions

1. Complete the following schedule and answer the given questions:

Quantity (Sold)	Price	TR	MR	AR

1	10	-	-	-
2	9	-	-	-
3	8	-	-	-
4	7	-	-	-
5	6	-	-	-
6	5	-	-	-
7	4	-	-	-

a. Draw a diagram of TR, MR and AR.

b. Explain the relationship between TR, MR and AR.

2. Answer the following question from given schedule:

Quantity	0	1	2	3	4	5	6	7
Price	14	12	10	8	6	4	2	0

a. Compute the total revenue, average revenue and marginal revenue.

b. Using table, explain the relationship between TR, MR and AR.

c. Draw TR, MR and AR curves.

3. If the demand function for a commodity Q = 500 – 5P, find the total sales that maximizes the total revenue.
4. Suppose the demand function for a commodity is given as Q = 100 – 5P, find the quantity sold that maximizes total revenue.
5. If the price equation is P = 500 – 5Q, find at what level of output the TR will be maximum and what it will be? Also find the equation of AR and MR.
6. The demand equation of Nepal Electronics for its computer is given by P = 10000 – 4Q.

a. Write the marginal revenue equation.

b. At what price and quantity marginal revenue will be zero?

c. At what price and quantity total revenue will be maximum?

d. If price is increased from Rs. 6000 to Rs. 7000 what will be the effect on total revenue?

Ans: a. 10,000 – 8Q b. 5,000 c. 50,000, 1,200 d. Revenue decreasing 7,50,000

Project Work

1. Collect data of revenue of various firms and organizations and prepare total, average and marginal revenue and present diagram with schedule in class.
2. By observing the market near you and mention its nature and characteristics and present in the class.

■