SYLLABUS
Class: - BBA I Year
Subject: - Micro Economics

UNIT I	Introduction to Economics, Definition of Economics, Nature and Scope of Economics, Significance and Evolution of Micro economics, Functions of Managerial Economics
UNIT II	Concept of Law of Demand, Law of Supply, Concept of Market Equilibrium, Elasticity of Demand, Demand determinants

UNIT –I

Introduction to Economics

-The standard definition for economics is the study of the production, distribution, and consumption of goods and services floating in the economy. This definition indicates that economics includes any business, nonprofit organization, or administrative unit. This subject presents economic concepts and principles from the perspective of "managerial economics," which is a subfield of economics. To the great dismay of economists - is merely a branch of psychology. It deals with individual behaviour and with mass behaviour. Many of its practitioners sought to disguise its nature as a social science by applying complex mathematics where common sense and direct experimentation would have yielded far better results.

This is not a realistic model - merely a useful approximation. According to this latter day - rational - version of the dismal science, people refrain from repeating their mistakes systematically. They seek to optimize their preferences. Altruism can be such a preference, as well. Still, many people are non-rational or only nearly rational in certain situations. And the definition of "self-interest" as the pursuit of the fulfillment of preferences is a tautology

In simple words, Economics means utilization of optimum resources. The word Economics derived from the Greek words "OIKOU" & "NOMUS", which means Rules or Law of the household. Economics is the Social Science that studies the Production, distribution & consumption of goods & services.

Basically, Economics deals with proper utilization of available scarce resources like manpower, money, raw materials & other resources which satisfy the wants of Social Animals.

Nature of Economics

- Is Economics a science or an art?
- Is Economics a positive or normative science?

❖ Is Economics a macro or micro Economics?

Economics as a science:-

For this first know what is science, "Science is a systematic & comprehensive study of knowledge which explains in cause & effective relation." is Economics is a science. For this two basic features are-

1. Argument in favour of Economics as a science.

Arguments in favour of Economics as a science: - Robbins considered Economics as a science.

The following arguments are given in favour of Economics as a science.

1) **Systematic study-** Collection, classification, & analysis of Economics facts are systematized in Economics. The subject matter of Economics is systematically divided into consumption, production, exchange, distribution, & public finance.

2) **Scientific Law-** Law of Economics is similar to the Law of other sciences. In Laws we establish cause & effective relationship of Economic activities. For E.g. the Law of demand shows the relationship between a change in demand & change in price.

3) **Experiments-** Economics carries several experiments with the laws of Economics. Different Economic laws have been experimented & tried to get out of Economics evils. For e.g. the devaluation of Indian rupee in 1955-66 was an economic experiment.

4) **Measuring rod of money-** Economists possess the measuring rod of money to measure the economic facts. Marshall said that the measuring rod of money has made Economics a more certain science than offer social sciences. Money is good measuring rod to measure individual as well as commercial motives.

5) **Universal-** Much of the Economic laws is universally true. They are applicable to all types of Economics. Whether it is a capitalist, socialist, or mixed Economy, the law of Economy is equally applicable.
6) On the basis of arguments given above, we can say that Economics is a science. It explores the facts, analysis them & classifies them.

Economics as an art:-

For this first know about what is art, Art is the practical application of knowledge of achieving definite ends.

According to "Lord J.N. Keynes"

"An art is a system of rules for the attainment of a given end." "A science teaches us to know, an art teaches us to do."

Economics as an art due to following reasons:-

1. Solution of problems- it can be helpful to human beings only, if it is able to solve their problems. Economics helps to utilize the scarce resources in the best possible ways. Prof. Pigou remarked in this context, "Economics is not only light-giving but also fruit-bearing."
2. Modern trends- Modern Economists are much concerned with solving the Economic problems. Prof. Stiglar said, "At least 90% of modern Economists spend over half of their time on applied or empirical subject." for this we can regard Economics as an art.
3. Verification of Economics law- Verification of Economics laws is possible only if Economics is an art because art is the practical application of knowledge. When we actually apply the Economics laws, only then we come to know that whether their results are true or false.From the arguments given below, we say that Economics is an art. Now days, Economic problem has become very popular & to formulate Economic plans is an art. Therefore we can conclude that Economics is a science as well as art.

Science & Art both are complementary to each other.

Macro-Economic Conditions & Micro-Economic analysis

1. Macro-Economic Condition- The decision of the firm are made almost always within the broad framework of environment within which the firm operates, known as macro-economic conditions. with regard these conditions, we may stress three points:

   a. The Economy in which the business is predominantly, a free enterprise economy using prices & market.
   b. The present day economy is the one undergoing rapid technological & economic changes.
   c. The intervention of government in economic affairs has increased in resent times & there is no likelihood that this intervention will stop in future. It can ignore neither the working of the market nor the place of economic change, nor the activities of government in the economic sphere. The management which keeps itself well & continuously informed of changes in the economic system is called progressive management.

2. Micro-Economic Analysis- The Micro-Economic analysis deals with the problem of an individual firm, industry, consumer, etc. in the case of Managerial Economics Micro-Economics helps in studying what is going on with in the firm, how best to use the available resources between various activities of the firm. It is also known as price theory.
   The concept of Micro-Economics are the elasticity of demand, marginal costs, the long-run economics, & diseconomies of scale, opportunity costs, present value, & market structures.

Micro environment	Macro environment
1. Micro Environment or Internal Environment refers to the forces operating in the market that are close or within the enterprise or firm and affect its ability to serve its customers directly.	1. Macro environment refers to all forces that are part of the larger society and are the "uncontrollable" to which companies mould itself through setting the "controllable" factors.
2. It comprises of producer/seller customer, competitors, suppliers marketing intermediaries.	2. Macro environment comprises demographic forces, economic forces, technological forces, political forces, natural forces, cultural forces.
3. These are uncontrollable for a firm.	3. These are controllable for a firm.
4. It includes concepts such as demography, economy, natural forces, technology, politics, and culture.	4. This includes all departments, such as management, finance, research and development, purchasing, operations and accounting.

<u>Positive V/s Normative approach</u>

Positive approach concern with **WHAT IS, WAS OR WILL BE**, while Normative approach concern with **WHAT OUGHT TO BE**.

The statement 'a government deficit will reduce unemployment & cause an increase in prices' is hypothesis in positive economics, while the statement 'in setting policy, unemployment ought to matter more than inflation' is a normative hypothesis.

Positive Economics is of two types:

a. Description.
b. Theory.

The Positive Economics theory, on the other hand attempt to developed hypothesis which explain why it happened.

The Normative Micro-Economics, one is concerned with problems like what the objectives & policies of business ought to be & how to go about them. Managerial Economics is concern with analysis which is prescriptive or normative in nature.

Positive and Normative Statements

In this brief note we introduce you to the idea of positive and normative statements and the idea of value judgments contained in statements and articles.

Detecting Bias in Arguments

Whenever you are reading articles on current affairs it is important to be able to distinguish where possible between objective and subjective statements. Very often the person writing an article has a particular argument to make and will include in their piece subjective statements about what ought to be or what should be happening. Their articles are said to carry value judgments, they are trying to persuade you of the particular merits or demerits of a particular policy decision or issues. These articles may be lacking in objectivity.

Positive Statements

Positive statements are objective statements that can be tested or rejected by referring to the available evidence. Positive economics deals with objective explanation and the testing and rejection of theories. For example:

1. A rise in consumer incomes will lead to a rise in the demand for new cars.
2. A fall in the exchange rate will lead to an increase in exports overseas.
3. More competition in markets can lead to lower prices for consumers.
4. If the government raises the tax on beer, this will lead to a fall in profits of the brewers.
5. A reduction in income tax will improve the incentives of the unemployed to search for work.
6. A rise in average temperatures will increase the demand for chicken.
7. Poverty in the UK has increased because of the fast growth of executive pay.

Normative Statements

Normative statements express an opinion about what ought to be. They are subjective statements rather than objective statements – i.e. they carry value judgments. For example:

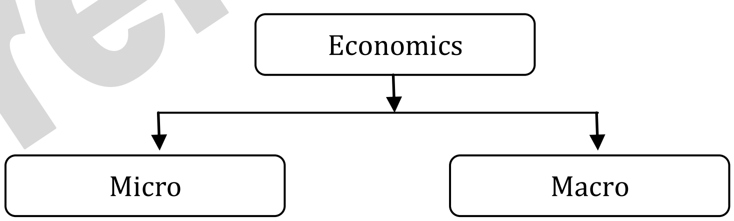
1. The level of duty on petrol is too unfair and unfairly penalizes motorists.
2. The London congestion charge for drivers of petrol-guzzling cars should increase to £25 - three times the current charge.
3. The government should increase the national minimum wage to £6 per hour in order to reduce relative poverty.
4. The government is right to introduce a ban on smoking in public places.
5. The retirement age should be raised to 75 to combat the effects of our ageing population.
6. The government ought to provide financial subsidies to companies manufacturing and developing wind farm technology.

Practical uses of Economics

The main points of practical uses are discussed below –

1. Useful to the Consumer
2. Useful to the Producer
3. Helpful to Business Community
4. Solution to Economic Problems
5. Helpful to Workers
6. Helpful in Price Determination
7. Significant for Economics Development
8. Useful for Economic Planning
9. Useful for Social Workers
10. Helpful to Social Welfare Activities
11. Helpful in international Trade.

In short economics is useful for all.



Definitions of Micro Economics

Different economists have defined micro economics as under –

According to A.P. Lerner – "Micro economics consists of looking at the economy through a microscope, as it were, to see how the millions of cells in the body of the individuals, or households as consumers, and the individuals or firms as producers-play their parts in the working of the whole economic organism."
According to K.E. Boulding – 'Micro economics is the study of particular firms, particular households, individual prices, wages, incomes, individual industries and particular commodities."
According to Shapiro – "Micro economics deals with small parts of the economy.

In every society, the economic problems faced by different economic agents (such as individual consumers, producers, etc.) can be analyzed with the help of microeconomic theories. This shows that **economics is a social science** which aims at analyzing the economic behavior of individuals in a social environment.

Importance/Usefulness of Microeconomics

1. **Determination of demand pattern:** It determines the pattern of demand in the economy, *i.e.,* the amounts of the demand for the different goods and services in the economy, because the total demand for a good or service is the sum total of the demands of all the individuals. Thus, by determining the demand patterns of every individual or family, microeconomics determines the demand pattern in the country as a whole.
2. **Determination of the pattern of supply:** In a similar way, the pattern of supply in the country as a whole can be obtained from the amounts of goods and services produced by the firms in the economy. Microeconomics, therefore, determines the pattern of supply as well.
3. **Pricing:** Probably the most important economic question is the one of price determination. The prices of the various goods and services determine the pattern of resource allocation in the economy. The prices, in turn, are determined by the interaction of the forces of demand and supply of the goods and services. By determining demand and supply,
Microeconomics helps us in understanding the process of price determination and, hence, the process of determination of resource allocation in a society.
4. **Policies for improvement of resource allocation:** As is well-known, economic development stresses the need for improving the pattern of resource allocation in the country. Development polices, therefore, can be formulated only if we understand how the pattern of resource allocation is determined. For instance, if we want to analyze how a tax or a subsidy will affect the use of the scarce resources in the economy, we have to know

how these will affect their prices. By explaining prices and, hence, the pattern of resource allocation, microeconomics helps us to formulate appropriate development policies for an underdeveloped economy.

5. **Solution to the problems of micro-units:** Since the study of microeconomics starts with the individual consumers and producers, policies for the correction of any wrong decisions at the micro-level are also facilitated by microeconomics. For example, if a firm has to know exactly what it should do in order to run efficiently, it has to know the optimal quantities of outputs produced and of inputs purchased. Only then can any deviation from these optimal levels be corrected. In this sense, microeconomics helps the formulation of policies at the micro-level.

Limitations of Microeconomics

However, microeconomics has its limitations as well:

1. **Monetary and fiscal policies:** Although total demand and total supply in the economy is the sum of individual demands and individual supplies respectively, the total economic picture of the country cannot always be understood in this simplistic way. There are many factors affecting the total economic system, which are outside the scope of Microeconomics. For example, the role of monetary and fiscal policies in the determination of the economic variables cannot be analyzed completely without going beyond microeconomics.

2. **Income determination:** Microeconomics also does not tell us anything about how the income of a country (*i.e.,* national income) is determined.

3. **Business cycles:** A related point is that, it does not analyze the causes of fluctuations in national income. The ups-and-downs of national income over time are known as business cycles. Microeconomics does not help us in understanding as to why these cycles occur and what the remedies are.

4. **Unemployment:** One of the main economic problems faced by an economy like India is the problem of unemployment. This, again, is one of the areas on which microeconomics does not shed much light. Because, if we are to find a solution to the unemployment problem, we must first understand the causes of this problem. For that, in turn, we must understand how the total employment level in the economy is determined. This is difficult to understand from within the confines of microeconomics.

<u>**Managerial economics**</u>

Sometimes referred to as business economics, is a branch of economics that applies microeconomic analysis to decision methods of businesses or other management units. The purpose of managerial economics is to provide economic terminology and reasoning for the improvement of managerial decisions. Most of us are familiar with two different conceptual approaches to the study of economics: microeconomics and macroeconomics. Microeconomics studies phenomena related to goods and services from the perspective of individual decision-making entities—that is, households and businesses. Macroeconomics approaches the same phenomena at an aggregate level, for example, the total consumption and production of a region. Microeconomics and macroeconomics each have their merits. The microeconomic approach is essential for understanding the behavior of atomic entities in an economy. However, understanding the systematic interaction of the many households and businesses would be too complex to derive from descriptions of the individual units. The macroeconomic approach provides measures and theories to understand the overall systematic behavior of an economy. Since the purpose of managerial economics is to apply economics for the improvement of managerial decisions in an organization, most of the subject material in managerial economics has a microeconomic focus. However, since managers must consider the state of their environment in making decisions and the environment includes the overall economy, an understanding of how to interpret and forecast macroeconomic measures is useful in making managerial decisions.

Economics is the combination of three different activities:-

1. MONEY;
2. WEALTH (ASSETS);
3. GOODWILL;

"Economics is an enquiry into nature & cause of wealth in nation."

"**Adam Smith**"

"Economics is the study of mankind in the ordinary business of life. It examines that part of individual or social action which is closely connected with the attainment & use of material requisite of well being."

"**Marshall**"

Managerial Economics = Management + Economics

Management deals with principles which helps in decision making under uncertainty and improves effectiveness of the organization. On the other hand economics provide a set of preposition for optimum allocation of scarce resources to achieve a desired result. Managerial Economics deals with the integration of economic theory with business practices for the purpose of facilitating decision making and forward planning by management. Almost any business decision can be analyzed with managerial economics techniques, but it is most commonly applied to:

- **Risk analysis** - various models are used to quantify risk and asymmetric information and to employ them in decision rules to manage risk.
- **Production analysis** - microeconomic techniques are used to analyze production efficiency, optimum factor allocation, costs, economies of scale and to estimate the firm's cost function.
- **Pricing analysis** - microeconomic techniques are used to analyze various pricing decisions including transfer pricing, joint product pricing, price discrimination, price elasticity estimations, and choosing the optimum pricing method.
- **Capital budgeting** - Investment theory is used to examine a firm's capital purchasing decisions.

Decision Problem

↓

↓

Managerial

Traditional →→→ ←←Decision Science

Economics (Tools & Techniques)

↓

↓

Optimal Solution to

Defining Business Problem

At universities, the subject is taught primarily to advanced undergrads. It is approached as an integration subject. That is, it integrates many concepts from a wide variety of prerequisite courses. In many countries it is possible to read for a degree in Business Economics which often covers managerial economics, financial economics, game theory, business forecasting and industrial economics.
Managerial Economics is a tool which is help to solve the Business problems. It is totally practical approach over pure Economics.

Managerial Economics is an Economic applied to problems of choice of alternatives of Economic nature & allocation of scarce resources by the firm. In other words, Managerial Economics involves analysis of allocation of the resources available to a firm.

Managerial Economics is the Economics applied in the decision making. It is that branch of Economics which serves as a link between abstract theory & managerial practice.

1. "Managerial Economics is the use of Economic modes of thoughts to analyze business problem."

   "McNair & Meriam"

2. "Managerial Economics as, "price theory in the service of business executives."

   "Watson"

3. "The application of Economic theory & methodology to business practice."

   "Brigham & Pappas"

4. "Managerial Economics as, "a fundamental academic subject which seek to understand & to analyze problem of business decision making". "Hague"

Scope of Managerial Economics

Managerial Economics has a closed connection with economic theory, operation research, statistics, mathematics, & the theory of decision-making. Managerial Economics also draws together & relates ideas from various functional areas of management like production, marketing, finance & accounting, project management etc.

In so for as Managerial Economics is concern, the following aspects constitutes its subject matter

1. Objective of a Business firm
2. Demand analysis & demand forecasting
3. Production & cost
4. Competition
5. Pricing & output
6. Profit
7. Investment & capital budgeting cost
8. Product policy, sales promotion & market strategy

Well scope is something which tells us how far a particular subject will go. As far as Managerial Economic is concerned it is very wide in scope. It takes into account almost all the problems and areas of manager and the firm.

ME deals with Demand analysis, Forecasting, Production function, Cost analysis, Inventory Management, Advertising, Pricing System, Resource allocation etc.

Following aspects are to be taken into account while knowing the scope of ME:

1. **Objective of the Business Firm:** As we know that Economics is playing very essential role for the business. It is first used for the Setting up of the objectives of a organization or business. The objective may be Business Expansion, Increase Sales, New technology adoption etc. or some time as per the change in government policy it help us to set the business objective as per the availability of the resources.
2. **Demand Analysis and Forecasting**: Unless and until knowing the demand for a product how can we think of producing that product. Therefore demand analysis is something which is necessary for the production function to happen. Demand analysis helps in analyzing the various types of demand which enables the manager to arrive at reasonable estimates of demand for product of his company. Managers not only assess the current demand but he has to take into account the future demand also.
3. **Production and Cost function:** Conversion of inputs into outputs is known as production function. With limited resources we have to make the alternative uses of this limited resource. Factor of production called as inputs is combined in a particular way to get the maximum output. When the price of input rises the firm is forced to work out a combination of inputs to ensure the least cost combination. Cost analysis is helpful in understanding the cost of a particular product. It takes into account all the costs incurred while producing a particular product. Under cost analysis we will take into account determinants of costs, method of estimating costs, the relationship between cost and output, the forecast of the cost, profit, these terms are very vital to any firm or business.
4. **Competition:** As per the Market situation a business has to face many tough competition from the market in terms of Perfect Competition, Monopolistic Competition, Duopoly or Oligopoly etc. as a Businessman you must know what kind of competition you are facing with the world and what are the different solution for the same. Because this is the world of competition and it has to be faced with all the possible options.
5. **Pricing and Output:** After knowing the competition, and type of it, it is must to set the price of the products or services which has to be offered in the market. It is very necessary to set a price of the commodity and its output, where the cost will be minimum and sufficient output at a required profit margin can be achieved. Economics help to decide the Pricing and output for the organization. Here pricing refers to the pricing of a product. As you all know that pricing system as a concept was developed by economics and it is widely used in managerial economics. Pricing is also one of the central functions of an enterprise. While pricing commodity the cost of production has to be taken into account, but a complete knowledge of the price system is quite essential to determine the price. It is also

important to understand how product has to be priced under different kinds of competition, for different markets.

6. **Pricing :** cost plus pricing and the policies of the enterprise Now it is clear that the price system touches the several aspects of managerial economics and helps managers to take valid and profitable decisions.
7. **Profit:** Every organization is working for Profit. To decide the profit margin and the net amount of profit economics helps better. At last every one as a firm need to earn profit but profit is depends on the Competition and pricing of the firm. Economics also helps in this to determine the profit level.
8. **Investment decision and capital budgeting:** Some time firm to invest again for the business expansion and diversification. To take the decision whether to invest or not, Economics help to decision maker to take decision. Capital Budgeting is a technique to determine whether to invest or not.

9. **Product policy, sales promotion & market strategy:** As per the Situation firm take decision regarding Product mix, sales promotion in the market and the best possible market strategy. Again to decide all of these, economics will help to firm to take decision.
10. **After Inventory Management:** What do you mean by the term inventory? Well the actual meaning of the term inventory is stock. It refers to stock of raw materials which a firm keeps. Now here the question arises how much of the inventory is ideal stock. Both the high inventory and low inventory is not good for the firm. Managerial economics will use such methods as ABC Analysis, simple simulation exercises, and some mathematical models, to minimize inventory cost. It also helps in inventory controlling.
11. **Advertising:** Advertising is a promotional activity. In advertising while the copy, illustrations, etc., are the responsibility of those who get it ready for the press, the problem of cost, the methods of determining the total advertisement costs and budget, the measuring of the economic effects of advertising ---- are the problems of the manager.
    a. There's a vast difference between producing a product and marketing it.
    b. It is through advertising only that the message about the product should reach the consumer before he thinks to buy it.
    c. Advertising forms the integral part of decision making and forward planning.

12. **Resource allocation:** Resources are allocated according to the needs only to achieve the level of optimization. As we all know that we have scarce resources, and unlimited needs. We have to make the alternate use of the available resources. For the allocation of the

resources various advanced tools such as linear programming are used to arrive at the best course of action.

Role of Managerial Economist

A managerial economist helps the management by using his analytical skills and highly developed techniques in solving complex issues of successful decision-making and future advanced planning.

The role of managerial economist can be summarized as follows:

1. He studies the economic patterns at macro-level and analysis it's significance to the specific firm he is working in.
2. He has to consistently examine the probabilities of transforming an ever-changing economic environment into profitable business avenues.
3. He assists the business planning process of a firm.
4. He also carries cost-benefit analysis.
5. He assists the management in the decisions pertaining to internal functioning of a firm such as changes in price, investment plans, type of goods /services to be produced, inputs to be used, techniques of production to be employed, expansion/

contraction of firm, allocation of capital, location of new plants, quantity of output to be produced, replacement of plant equipment, sales forecasting, inventory forecasting, etc.

6. In addition, a managerial economist has to analyze changes in macro- economic indicators such as national income, population, business cycles, and their possible effect on the firm's functioning.
7. He is also involved in advicing the management on public relations, foreign exchange, and trade. He guides the firm on the likely impact of changes in monetary and fiscal policy on the firm's functioning.
8. He also makes an economic analysis of the firms in competition. He has to collect economic data and examine all crucial information about the environment in which the firm operates.
9. The most significant function of a managerial economist is to conduct a detailed research on industrial market.
10. In order to perform all these roles, a managerial economist has to conduct an elaborate statistical analysis.
11. He must be vigilant and must have ability to cope up with the pressures.
12. He also provides management with economic information such as tax rates, competitor's price and product, etc. They give their valuable advice to government authorities as well.

Relationships between Managerial Economics & Other Subjects

1. Managerial Economics & Traditional Economics- The relationships between M.E. & T.E. starts with the basic concepts that both of them are related or concern with solving the problem of allocation of limited resources between competing ends. the two main contributions to M.E. are:

a. To help in understanding the market conditions & the general economic environment within which the firm operates.

b. To provide a philosophy for understanding & analyzing resources- allocation problems. Managerial Economics takes help of Economics analysis for achieving both T.E. & M.E. efficiency in the business operations. The firm maximizes its goal by producing maximum output at minimum cost is Managerial Economics efficiency. The production is carried out to the best of technological specification is Traditional Economics efficiency.

2. Managerial Economics & Operation Research- Both M.E. & O.R. are concern with taking effective decisions. M.E. & O.R. are both concerned with model-building.
Models are generalized & scientifically analyzed relationship between various factors relevant in a specified kind of situations. Economic models are more general & confined to broad economic decision-making. whereas O.R. models on the other hand, draw from various disciplines & are more job-oriented, through situational O.R. is both expensive as well as a very slow process compare to M.E. the significant relationship between M.E. & O.R. can be highlighted with reference to certain important problems of M.E. which are solved with the help of O.R. techniques. The problems are equal allocation problems, waiting-line problems & inventory problems.

3. M.E. & Mathematics- Mathematics & M.E. are very closely related to each other. This is because M.E. is both conceptual as well as metrical. It drives its metrical property from the fact that an important function M.E. is to estimate & predict the relevant economic factors for decision-making & forward planning.

4. M.E. & Statistics- Statistics is widely used by Managerial Economists. M.E. aims at quantifying the past economic activity as well as to predict its future course. This is the way where Statistics is used in M.E. Managerial Economics heavily depending upon the theory of probability to take care of various problems in decision-making.

5. M.E. & the Theory of Decision-Making- M.E. is based on the assumption of a single goal of profit maximization & on the assumption of certainty, i.e., perfect knowledge. The theory of decision-making recognizes the multiplicity of goals & the pervasiveness of uncertainty in

the business. In complex problem with multiple goals & high degree of uncertainty & where decisions are to be taken quickly, the theory of decision-making guides M.E.

Features of Managerial Economics

- Managerial Economics concern with decision making of Economic nature. It deals with identification of Economic choices & allocation of scarce resources.
- It is goal oriented & prescriptive. It deals with how decisions should be made by managers to achieve the organizational goals.
- It is pragmatic. It is concern with those analytical tools which are useful in improving decision making.
- It is both conceptual & metrical.
- Managerial Economics provide a link between Traditional Economics & the Decision Science, for Managerial decision making, as shown in figure:-

Characteristics of ME

- Managerial Economics is micro-economic in character as it concentrates only on the study of firm & not on the working of economy.
- Managerial Economics takes the help of macro-economics to understand & adjust to the environment in which the firm operates.
- Managerial Economics is Normative rather than Positive character.
- It is only for the analysis of profits that help is taken of the theory of distribution.

Significance of Managerial Economics

1. In order to enable the manager to become a more competent model builder, Managerial Economics provides the no. of tools & techniques.
2. Managerial Economics provides most of the concepts that are needed for the analysis of business problems, concept of elasticity of demand, fixed & variable costs, short & long-run costs, opportunity costs, net present value, etc. all helps in understanding & solving decision problems.
3. It helps in making decision such as- what is the production technique & the input-mix that is least costly? How to tale investment decision? & so on…

DEMAND ANALYSIS

Meaning and Definition of Demand: -

The demand may arise from an individual, a household as well as a market.

As we have indicated earlier, 'demand' is a technical concept from Economics. Demand for product implies:

a) Desires to acquire it,

b) Willingness to pay for it, and

c) Ability to pay for it.

All three must be checked to identify and establish demand**. For example** : A poor man's desires to **stay in a five-star hotel room** and his willingness to pay rent for that room is not 'demand', because he lacks the necessary purchasing power; so it is merely his wishful thinking. Similarly, a miser's desire for and his ability to pay for a car is not 'demand', because he does not have the necessary willingness to pay for a car. One may also come across a well-established person who processes both the willingness and the ability to pay for higher education. But he has really no desire to have it; he pays the fees for a regular cause, and eventually does not attend his classes. It should also be noted that the demand for a product-–a commodity or a service–has no meaning unless it is stated with **specific reference to the time, its price, price of is related goods**, **consumers' income and tastes etc**.

Difference between NEED, WANT and DEMAND

Need	Basic necessity Feel deprived if this is absent	Food
Want	Given choices, this is what you prefer	Chicken, Burger, Steak dinner
Demand	A want that is supported by a decision and capacity to buy	Only burger is within my budget!

Need: Human needs are the basic requirements and include food, clothing and shelter. Without these humans cannot survive. An extended part of needs today has become education and healthcare. Generally, the products which fall under the needs category of products do not require a push.

Instead the customer buys it themselves. But in today's tough and competitive world, so many brands have come up with the same offering satisfying the needs of the customer that even the "needs category product" has to be pushed in the customer's mind. For Example: Agriculture sector, FMCG, Real Estate etc.

Wants: Wants are a step ahead of needs and are largely dependent on the needs of humans themselves. For example, you need to take a bath. But I'm sure you take baths with the best soaps. Thus Wants are not mandatory part of life. You DONT need a good smelling soap. But you will definitely use it because it is your want. For example: Hospitality, Consumer Durables, and Electronics etc.

Demand: You might want a BMW or a Mercedes for a car. You might want to go for a cruise. But can you actually buy a BMW or go on a cruise? It is not necessary that you have the *ability* to buy a BMW or go on a cruise but you may want that in future. Thus a step ahead of wants is demand.

When an individual wants something which is premium, but he also has the ability to buy it, then these wants are converted to demands. The basic difference between wants and demands is desire. A customer may desire something but he may not be able to fulfill his desire.

Example of demands – Cruises, BMW's, 5 star hotels etc.

The needs wants and demands are a very important component of marketing because they help the marketer decide the products which he needs to offer in the market. Thus the flow is like this.

To say that demand for an Atlas cycle in India is 60,000 is not meaningful unless it is stated in terms of the year, say 1983 when an Atlas cycle's price was around Rs. 800, competing cycle's prices were around the same, a scooter's prices was around Rs. 5,000. In 1984, the demand for an Atlas cycle could be different if any of the above factors happened to be different. For example, instead of domestic (Indian), market, one may be interested in foreign (abroad) market as well. Naturally the demand estimate will be different. Furthermore, it should be noted that a commodity is defined with reference to its particular quality/brand; if its quality/brand changes, it can be deemed as another commodity.

To sum up, we can say that the **Demand for a product is the desire for that product backed by willingness as well as ability to pay for it. It is always defined with reference to a particular time, place, and price and given values of other variables on which it depends**.

Demand for a commodity refers to the quantity of the commodity, which an individual household is willing to purchase per unit of time at a particular price.

1. **Individual Demand : -** It is demand by one or more Individual e.g. Cigarettes, Footwear etc.
2. **House Holds (H.H.) : -** Demand by H.H. e.g.: Refrigerator.
3. **Market Demand : -** When we consider the demand for a commodity by all the Individuals/Households in the market at a price, we call it Market Demand.

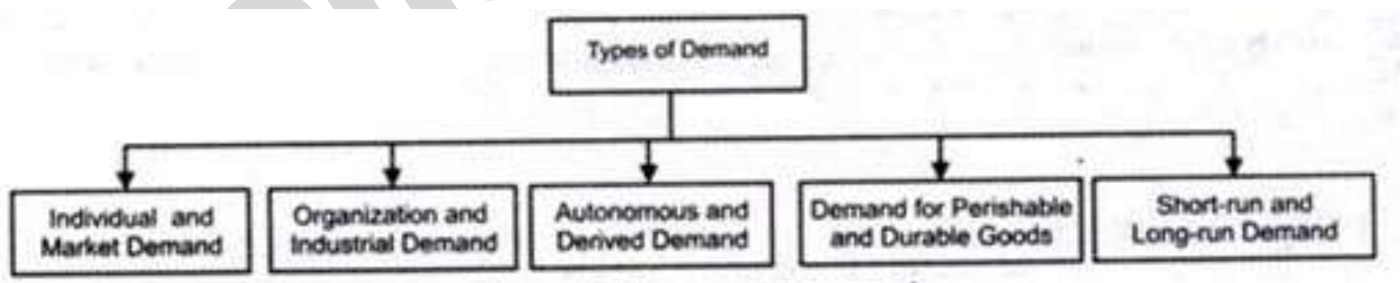


Figure-1: Types of Demand

Demand and Quantity Demanded

Demand refers to different possible quantities of a commodity that the consumer is ready to buy at different possible price of that commodity prevailing in the market at a given point of time.

Quantity demanded refers to a specific quantity to be purchased against a specific price of the commodity.

For Example: Demand of commodity X refers to 10 units of X if Px is Rs 5/-per unit, 8 units of X if Px is Rs 6 per unit of X if Px is Rs 7/- per unit. Quantity demanded of commodity X refers to Rs 8/- per unit if Px happens to be Rs 6 per unit.

Factors Affecting Demand or Determinants of Demand

The desire to purchase is revealed by taste and preference of the individuals/households. The capability to purchase depends upon his purchasing power, which in turn depends upon his income and price of the commodity.

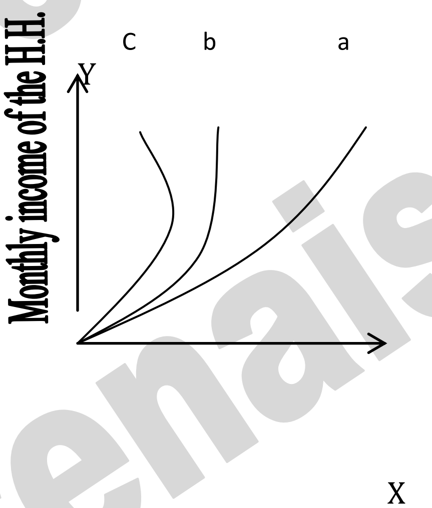
a) **Price of the Commodity**: - Effect of price on commodity even that the other determinants of demand is constant. There are two effects:
   1. The substitutes effect
   2. The Income effect

   I) **The Substitutes Effects:** - Substitutes effect the decrease in the price of commodity x, leaves the consumer with additional income which he can use in buying more amount of x, rather than its substitute y. This increasing the demand of commodity x. For e.g.: x= tea and y=coffee. If increasing in the price of the commodity x or tea, then the substitute y or coffee demand is increasing and vice-verse.

   II) **Income Effect: -** It is the increase in the real income or the purchasing power of a consumer due to the decrease in the price of commodity x.

b) **Income of Individual or Consumer and Household**: - The amount demanded of a commodity also depends upon the income of a household/individual. Income of individual or consumer can have three effects:

- An increase in the income usually increases the amount of consumption of regular goods and other factors remaining constant. Generally **Luxury Goods** are the Goods which have the same nature. As Income of the consumer increase then they purchase luxury goods more and more.
- Increase in income may need to increase in the consumption and thus the demand of certain commodity remains unchanged. In these category goods like **FMCG and Necessity goods** take place. According to this concept demand increase up to a certain limit then become constant.
- An increase in the income after a point may decrease the consumption and thus the demand of a commodity decrease, such a commodity is known as **Inferior Goods**. Normally it always happens that as income increase demand of some product becomes negative.



Units demanded of good x per day

Engel was the first person to study the relationship between income and quantity demanded for the normal and inferior gods.

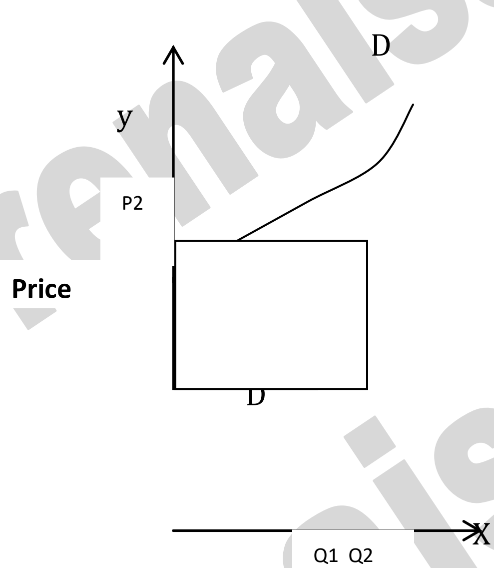
C] **Price of related goods: -** There are two types of relation between goods.

1st Substitute and 2nd Complimentary.

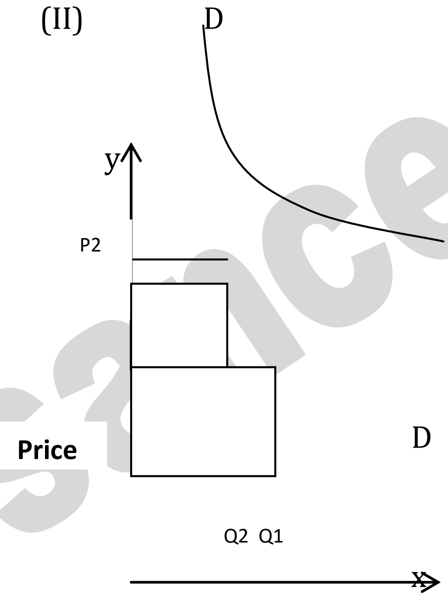
i. Substitute: - These are the goods which have same effect – as price increase of the first commodity; it results in increase in demand of other commodity. **For ex**: Apple and Pears, Tea and Coffee. Price of Tea increases and demand of Coffee also increase.

ii. Complementary: - These are those goods which have adverse effect on the demand of the commodity. The increases in the price of the first commodity decrease the demand of the other quantity or commodity. **For exp: -** Bread and Butter, Pen and Ink, Tea and Sugar.

(I)



(II)



Quantity Demanded Quantity Demanded

I. Amount demanded of coffee per week [I Substitute goods case]

II. Amount demanded of butter per day [II Complementary goods case]

D] **Taste and Preference: -** Taste and Preference, if changes in the consumer favors, the demand of commodity increase and vise versa. For e.g.: Jeans will have greater demand now, because of the preference of the consumer. Taste also play important role to change in the demand of the commodity because of the new choice of the consumer. No. of examples are considered for the taste and preference of the consumer like Food articles, dressing sense, luxury products etc.

E] **Advertisement: -** More advertisement creates favorable taste and preference for the demand of a commodity. In present scenario higher the advertising, higher the demand for the product. Every company has to use this concept or philosophies. In present Insurance and banking firm also has great advertising so they can capture more market shares.

F] **Expectations: -** The consumer makes two kinds of expectation:

a. Related to their future income.
b. Related to future price of the good and its related goods.

a. **Related to their future income: -** If the consumer feels that his future income will be more, he will spent more today. Whereas if he feels that his income will be less in the future, he would spend less today and so the demand will decrease. Income of the consumer x demand today in future. Recently in all over the world recession becomes big problem, in this situation, persons who find that their income will cut down, they stop consuming luxury goods. In recent survey, higher society persons sell their luxury hotels or Ship to survive.

b. **Related to future price of the goods and its related goods: -** If the consumer feels that the price of goods is going to increase in the future, they will buy more of it today, thus increasing the demand of the commodity. And if they feel that price will decrease tomorrow, then they postponed their demand right now.

G] Population:

H] Government Policy:

I] Others

Px (Price of Goods)	Qx (Quantity of Goods Demanded)
1	4
2	3
3	2
4	1

<u>Demand Schedule</u>

Demand schedule is a table showing relation between different quantities of a commodity to be purchased at different prices of that commodity. **SAMUELSON** state this as “The table relating to price and quantity demanded is called the demand schedule.”

This could be of two major types – Individual Demand Schedule and Market Demand Schedule\

Individual Demand Schedule

It refers to the demand schedule of an individual buyer for a commodity at different possible prices at a given point of time. This table reflects the inverse relationship between price of the commodity and the quantity demanded for the same at a given point of time.

Market Demand Schedule

Px (Price of Good X)	Qx (Consumer A)	Qx (Consumer B)	Qx (Consumer A+ B)
1	4	5	4+5=9
2	3	4	3+4=7
3	2	3	2+3=5

4	1	2	1+2=3

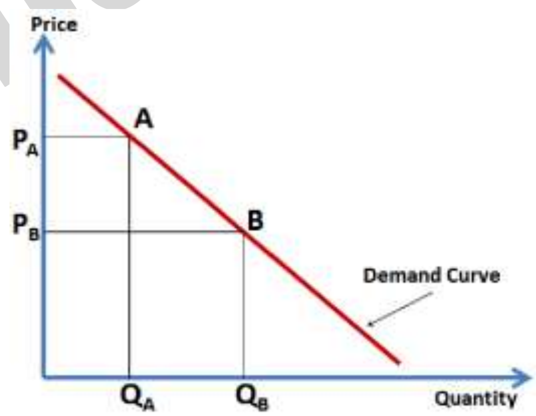
Every market has several consumers of a commodity at a given point of time. This table shows the quantity demanded for Goods X by consumer A and B at different price levels.

THE LAW OF DEMAND

The law of demand states that other things being constant, there is an inverse relationship between quantities demanded and own price of the commodity.

Explanation

Px (Rs)	Qx (Units)
10	100
9	150
8	200



Nature of Demand

1. Derived demand & autonomous demand.
2. Demand for producer's goods and consumer goods.
3. Demand for durable goods and non durable goods.
4. Industry demand and firm demand.
5. Total demand and market segment demand.
6. Short run and long run demand.

1. Derived demand & autonomous demand: - derived demand means a demand which is created because to produce other commodities or the commodities which are helpful to produce other products. For ex. Machinery, labour, raw material etc. are the example which is demanded as per requirement.
   Autonomous demand is just reverse of derived demand where demand is already exist due to its direct consumption. For ex. Demand for food is direct demand or autonomous demand because it can consume directly by a person or a group of persons.

   In practical there is no distinction between derived and autonomous demand because for same product may be derived demand but the same product can be autonomous demand for other. The autonomous demand is more elastic in nature then the derived demand. It is because derived demand not influences the price effect on others.

2. Demand for producer goods & consumer goods: - producer goods are those goods which are used by a producer for further production e.g. raw material, machinery, semi finished goods and other material.
   In general sense consumer goods demand is more elastic in nature as compare to the producer goods.

Consumer goods are those goods which are directly consumed by the consumers. E.g. milk, bread and any other product which dire3ctly satisfy the needs of consumers.

3. Demand for durable goods and non durable goods :-As we know that durable goods are those goods which can be store for a long time as well as the demand can be postponed, if it is not required immediately or urgently e.g. machinery, household appliances, books etc are the durable goods.

   The non-durable goods are those which have short life. It is also divided into two parts perishable and non-perishable.

   Demand of durable goods is more elastic in nature then the non durable goods because slight change in price will directly affect the overall demand of the product.

4. Industry demand and firm demand: - firm demand denotes the demand for the products of a particular firm for ex. Demand for steel produced by "TISCO" is a firm demand.

   In contrast to these if all the companies create demand of a particular product that produce similar product is called industry demand. For ex. Demand of steel by all the companies represent s demand of steel industry.

   The firm demand is more elastic in nature as compare to Industry demand. It is because every firm faces the competition with their competitors in the industry.

5. Total demand and market segment demand: - as the name suggests market segment demand is demand of a particular market where as total demand represents demand of whole market.

   For ex. A company has a product which is sold in whole India and the demand of that product is called total demand, but if the same product has different demand in different –different segment then this is called as market segment demand.

   Market segment demand is always more elastic then the total demand.

6. Short run & long run demand: - short run demand refers to demand with its immediate to price changes & income fluctuations where as long run demand is that which will ultimately exist as a result of the changes in pricing, promotion or a product improvement other enough time is allowed to let the market adjust itself to the new situations.

   Long run demand is more elastic than the short run demand.

ELASTICITY OF DEMAND

Elasticity of demand is defined as measurement of percentage changed in quantity demanded in response to a given percentage change in own price of the commodity.

$$E = \frac{\%\text{age change in quantity demanded of good x}}{\%\text{age change in determinant of demand z}}$$

$$E = \frac{\triangle Q}{\triangle Z} \times \frac{Q1}{Z1}$$

E = Elasticity of demand

$\triangle$ = To change

Q = to quantity demanded

Z = to a demand determinant

$\triangle$ Q = Q2 – Q1

$\triangle$ Z = Z2 – Z1

$$E = \frac{Q2-Q1/Q1}{\quad}$$

Price Elasticity of Demand

The more the value of the E.O.D. the more responsive is the quantity demanded to changes in the determinant under consideration. Price E.O.D. is the determinant of relative responsiveness of quantity demanded to price of the commodity.

$$E = \frac{\%\text{age change in quantity demanded of good x}}{\%\text{age change in price of commodity x}}$$

$$E = \frac{Q2-Q1/Q1}{}$$

$$E = \frac{Q}{\triangle} \quad \frac{P}{}$$

$\triangle Q \quad = \quad Q2 - Q1$

$\triangle P \quad = \quad P2 - P1$

Q1 and P1 are original quantity and price respectively

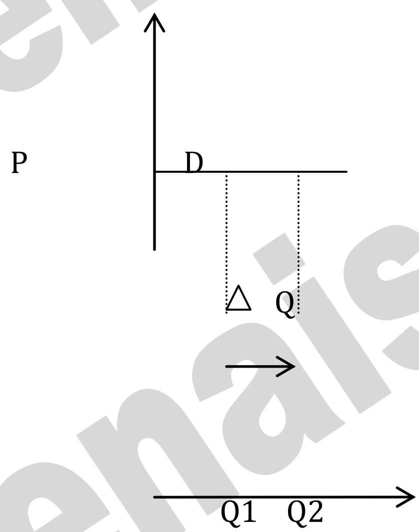
Q2 and P2 are the new quantity and price respectively.

Higher the elasticity of demand, greater will be the %age change in Quantity demanded for every %age change in price.

Since the elasticity of demand is linked to the law of demand, the coefficient of price elasticity of demand E, will always have a negatively sloping demand curve, in order to avoid confusion in interpretation only the absolute value of E is taken i.e. the sigh is ignored

Type of price elasticity

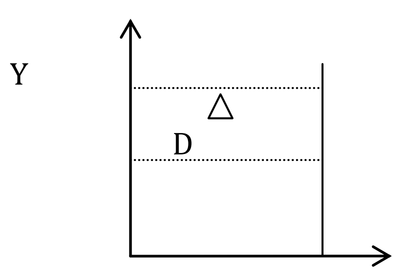
1. <u>Perfectly elastic demand:</u> - where no reduction in price is needed to cause an increase in quantity demand



Example: -

1. Petrol
2. Ice cream
3. Cloths

2. <u>Absolutely (Perfectly) inelastic demand: -</u> where a change in price, however large, causes no change in quantity demanded. (E=0)



Example: -

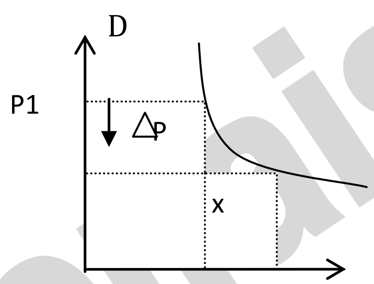
1. Salt
2. Match box
3. Ink

P price of goods x P

P"

D X
units demanded of goods x

3. Unit Elasticity of demand: - Where a given proportionate change in price causes an equally proportionate change in quality demanded.
(E=1)



Price

△
D

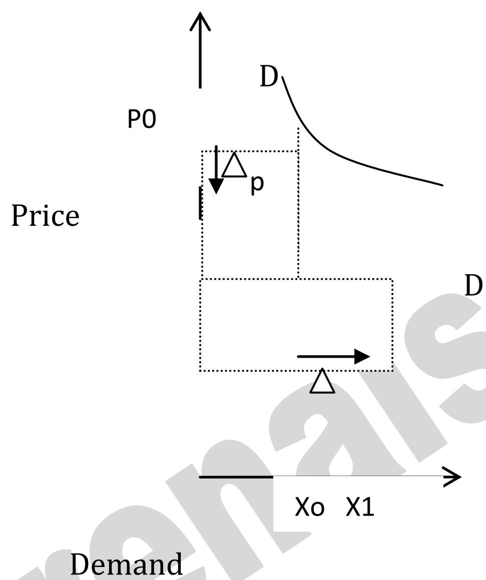
X1 X2

Quantity

Example:-

1. Soap
2. Detergent
3. Tea
4. Milk
5. Sugar

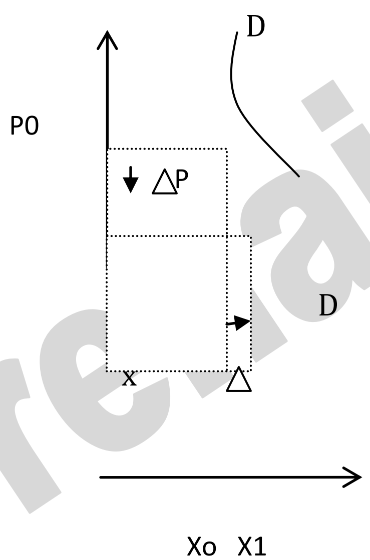
4. Relatively elastic demand quantity: - Where a change in price causes more than proportionate change in quantity demanded. (E>1)



Example: -

1. Dry Fruits
2. Bear
3. Whiskey

5. Relatively inelasticity demand: - where a change in price causes a less than proportionate change in quantity demanded. (E<1)



Example:-

1. Cigarettes
2. Mobile
3. Vegetables

Factors affecting Price elasticity of demand

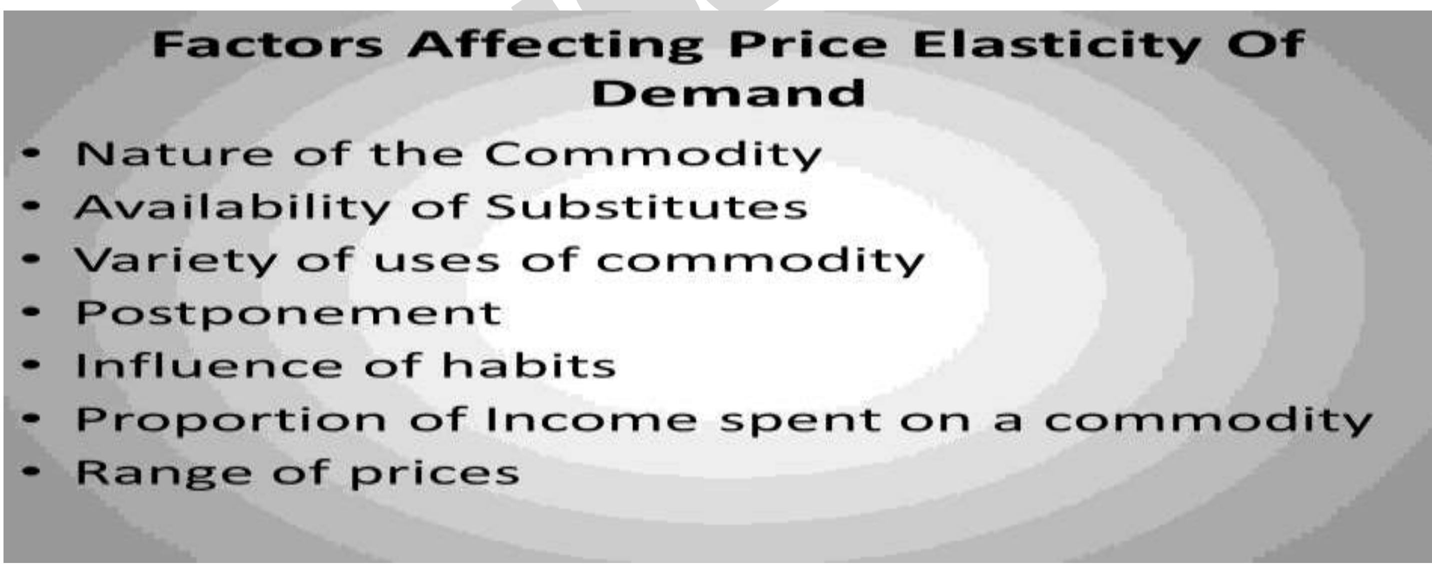
1. *The Number and Closeness of the Substitutes:* - The availabilities of close substitutes of the commodity are the most important determinant of the degree of price

elasticity. In case the product has large no. of close substitutes in price range demand for the product is bound to be highly elastic.

For e.g.: Demand for cigarettes will be inelastic because there are no close substitutes.

2. *The share of commodity in buyer's budget:* - if the proportion of consumer income, which is spent on the commodity, is very small, demand will tend to be in elastic. The commodities in the category are salt, match- boxes, ink etc.
3. *The nature of the commodity:* - the demand of necessities is inelastic, while these of luxuries are elastic.
4. *Number of uses a commodity can be put to:* - larger the number of user of a commodity, greater will be the elasticity of that commodity. The various uses of the commodity are put in the order of their importance.
5. *Habit-forming characteristics:* - there are some goods which are habit-forming like the use of tobacco and alcohol. Since the consumer forms a habit with their use the demand for such goods will tend to be inelastic.
6. *Time - Period:* - Time is very important in price elasticity of demand. Demand is more elastic in the long run than in the short run.

INCOME ELASTICITY OF DEMAND



It is for a commodity shows the extant to which a consumers demand for the commodity changes as a result of the change in his/her income.

Income elasticity of demand may be defined as a ratio of percentage change in the quality demanded of a good. Say x to the %age change in income of the consumer.

$$E_y = \frac{\%\text{age change in quantity demanded of good x}}{\%\text{age change in Income of Consumer}}$$

$$E \frac{Q}{\triangle} X \frac{Z1}{Q1}$$

$\triangle Q = Q2 - Q1$

$\triangle Z = Z2 - Z1$

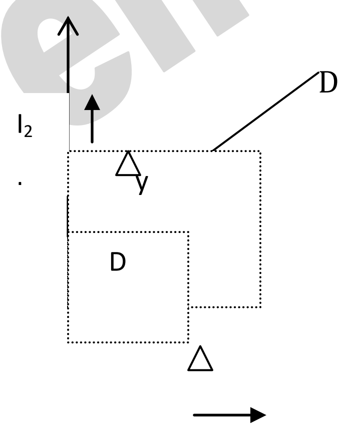
The income elasticity of demand is positive for all normal goods because the consumers demand for a good change in the direction of the change in his income. In the case of an inferior goods the demand for the good various inversely with income. Therefore the income elasticity of demand is negative.

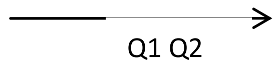
Types of Income Elasticity

1. <u>High Income elasticity</u>: - when the quantity demanded of good x increases by a larger % age change than the income of the consumer. Ey>1

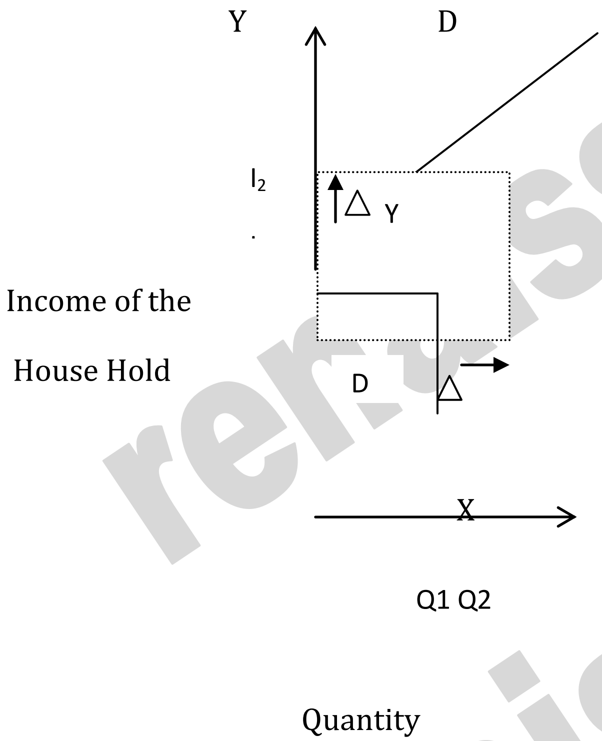
Income of the

House hold

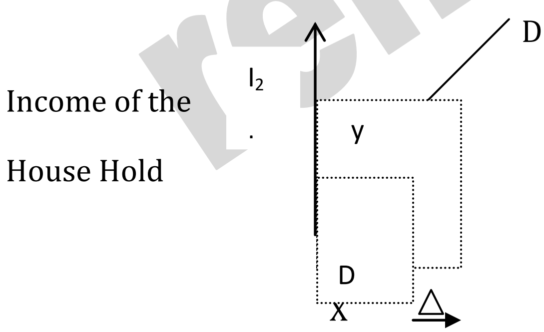




2. Unitary income elasticity: - The %age change in the quality demanded is equal to the %age change in money income. Ey=1

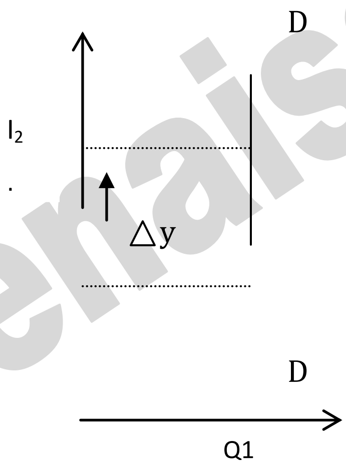


3. Low income elasticity: - income elasticity is low if the relative change in quantity demanded is less then the relative change in money. Ey<1



Quantity

4. <u>Zero income elasticity</u>: -A change in the income will have effect on the quantity demanded for ex. Salt. Ey=0



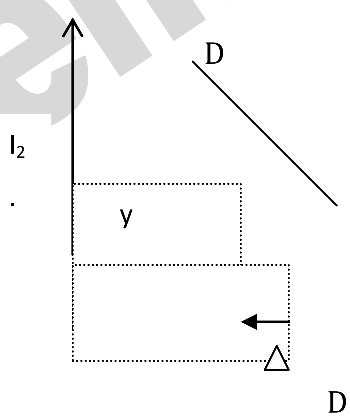
Income of the

House Hold

Ey=0

Quantity

5. <u>Negative income elasticity</u>: - as the income increases, the demand decrease because less is bought at higher income and more is bought at lower income. Ey<0



Income of the

House Hold

Q2 Q1

We have high-income elasticity in case of luxury goods and low-income elasticity in case of necessity of goods.

Cross elasticity of demand

It is defined as the ratio of percentage change in demand for me goods due to a change in the price of some other related goods. The concept of cross elasticity is useful in inter commodity demand relation. This change in the demand for one good due to a change in the price of some other goods comes about because often fact that the two goods may be either substitutes or complementary to each other.

$$E = \frac{\text{\%age change in demand of commodity x}}{\text{\%age change in price of commodity y}}$$

$$E = \frac{\Delta Qx}{\Delta Py} \times \frac{Py}{Qx}$$

1. If the two goods are **substitutes**, the value of cross-elasticity will be positive.

In the case of **complementary** goods the value of cross elasticity of demand will be negative, because the change in the price of one good cause opposite change in the quality demanded of the other goods.

SUPPLY AND ELASTICITY OF SUPPLY

Meaning of Supply

Supply means the quantities of goods which are offered for sale at particular prices during a giver period of time. Thus, the supply of a commodity may be defined as the amount of that commodity which the sellers (or producers) are able and willing to offer for sale a particular price during a certain period of time.

Factors Affecting Supply

The determinants of supply, other than price, are as follows:

1) Price.
2) Prices of related goods.
3) Objectives o producer
4) Infrastructure
5) The cost of factors of production
6) The State of Technology
7) Factors Outside the Economic Sphere.Weather conditions, floods and droughts, epidemics etc.
8) Tax and Subsidy

Statement of the Law

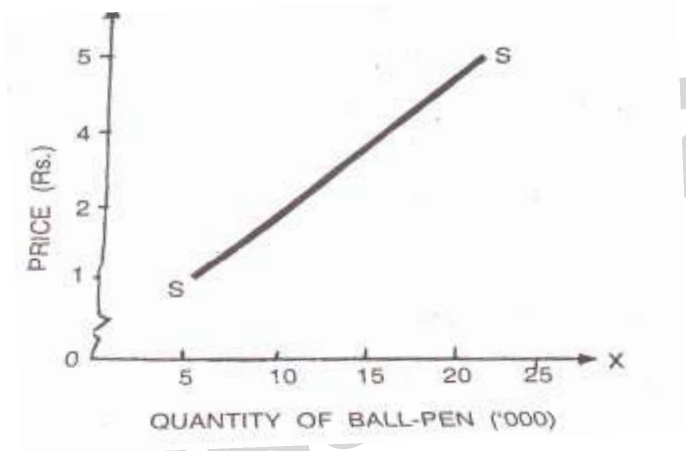
Law of supply may be stated as "Other things remaining unchanged, the supply of a commodity expends (i.e., rise) with a rise in its price, and contracts (i.e. falls) with a fall in its price."The law, thus, suggests that the supply varies directly with the changes in price. So, a larger amount is supplied at a higher price than at a lower price in the market.

Explanation of the Law

The law can be explained and illustrated with the help of a supply schedule as well as supply curve, based on imaginary data, a follows see table and figure given below. When the data of Table are plotted on a graph, a supply curve can be drawn as shown in Figure From the supply schedule it appears that the market supply tends to expand with a rise in price and vice versa. Similarly, the upward sloping curve also depicts a direct co-variation between price and supply.

TABLE : Market Supply Schedule

Price of a ball pen (Rs.)	Quantity Supplied (in 000 per week)
1	5
2	10
3	15
4	20
5	25

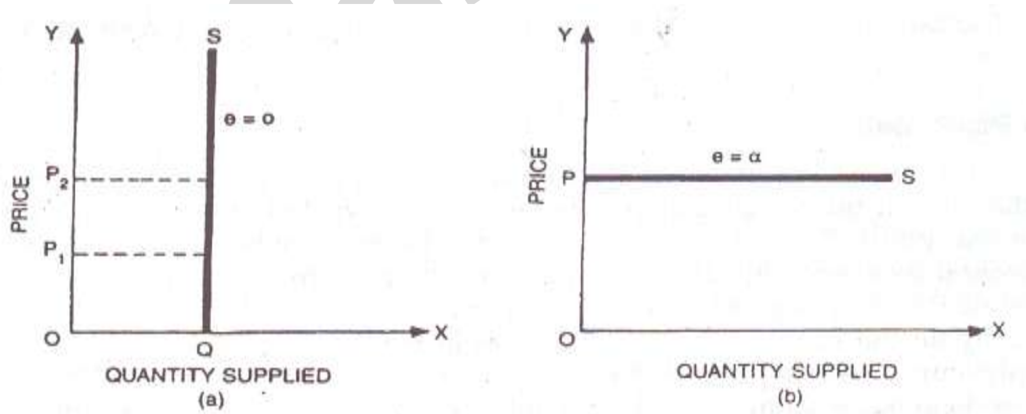


Elasticity of Supply

Elasticity of supply may be defined as the ration of the percentage change or the proportionate change in quantity supplied to the percentage or proportionate change in price. In symbolic terms;

$$Es = \frac{\Delta q}{\Delta p} \times \frac{p_1}{q_1}$$

Where $\mathbf{e_s}$ represents elasticity of supply, Q stands for quantity supplied, P for price and the symbols indicates a change.



There are various degrees of elasticity of supply. It may be relatively elastic, relatively or may have perfect elasticity or inelasticity. Different types of supply elasticities have been illustrated in Figure

The panel (a) of Fig. represents the supply curve of zero elasticity. Irrespective of the price, the producer would be supplying OC quantity (es = O). The panel (b) represents the supply curve of infinite elasticity, at OP price the producer would be supplying any amount of the commodity (es = ∞)

Methods of calculating Supply Elasticity

- Proportionate method
  Es = % change in Quantity supplied / Percentage change in price
- Geometric Method

Factors affecting Elasticity of Supply

- Nature and input used
- Natural Constraints
- Risk Taking
- Nature of the commodity
- Cost of Production
- Time Factor
- Technique of production

What is Market?
Meaning
"Market refers to an arrangement, whereby buyers and sellers come in contact with each other directly or indirectly, to buy or sell goods."
Thus, above statement indicates that face to face contact of buyer and seller is not necessary for market. E.g. In stock or share market, the buyer and seller can carry on their transactions through internet. So internet, here forms an arrangement and such arrangement also is included in the market.

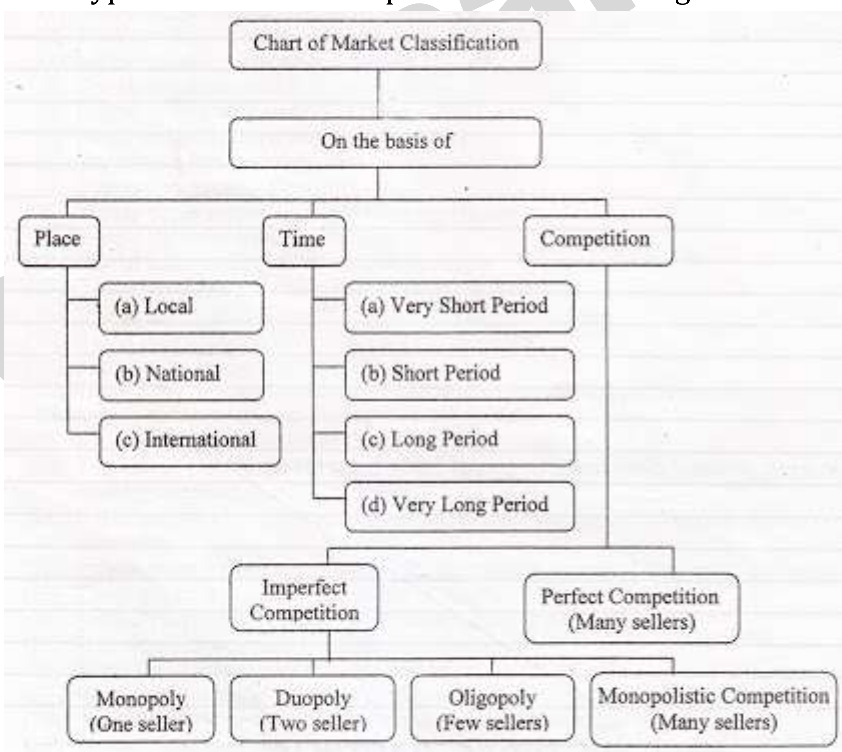
Characteristics of Market

1. Existence of commodity which is to be bought and sold.

2. The existence of buyers and sellers.
3. A place, be it a certain region, a country or the entire world.
4. Communication between buyers and sellers that only one price should prevail for the same commodity at the same time.

Classification or Types of Market

The classification or types of market are depicted in the following chart.



Generally, the market is classified on the basis of:

1. Place,
2. Time and
3. Competition.

On the basis of **Place**, the market is classified into:

1. Local Market or Regional Market.
2. National Market or Countrywide Market.
3. International Market or Global Market.

On the basis of **Time**, the market is classified into:

1. Very Short Period Market.

2. Short Period Market.
3. Long Period Market.
4. Very Long Period Market.

On the basis of **Competition/Market Structure**, the market is classified into:

1. Perfectly Competitive Market Structure.
2. Imperfectly Competitive Market Structure.

(Market structure refers to number and types of firms operating in the industry.)

Both these market structures widely differ from each other in respect of their features, price, etc. Under imperfect competition, there are different forms of markets like monopoly, duopoly, oligopoly and monopolistic competition.

1. A monopoly has only one or a single (mono) seller.
2. Duopoly has two (duo) sellers.
3. Oligopoly has little or fewer (oligo) number of sellers.
4. Monopolistic competition has many or several numbers of sellers.

The suffix poly has its origin from Greek word *Polus* which means many or more than one.

What is Perfect Competition?

1) Perfect Competition refers to a market situation where there are very large number of buyers and sellers dealing in a homogenous product at a price fixed by the market.
2) Perfect Competition is a market structure where there is a perfect degree of competition and single price prevails.
3) The concept of Perfect Competition was introduced by Dr. Alfred Marshall.
4) Nothing is 100% perfect in this world. So, this states that perfect competition is only a theoretical possibility and it does not exist in reality.

Main Features of Perfect Competition ↓

The following are the characteristics or main features of perfect competition :-

1. Many Sellers

In this market, there are many sellers who form total of market supply. Individually, seller is a firm and collectively, it is an industry. In perfect competition, price of commodity is decided by market forces of demand and supply. i.e. by buyers and sellers collectively. Here, no individual seller is in a position to change the price by controlling supply. Because individual seller's individual supply is a very small part of total supply. So, if that seller alone raises the price, his product will become costlier than other and automatically, he will be out of market. Hence, that seller has to accept the price which is decided by market forces of demand and supply. This ensures single price in the market and in this way, seller becomes price taker and not price maker.

2. Many Buyers

Individual buyer cannot control the price by changing or controlling the demand. Because individual buyer's individual demand is a very small part of total demand or market demand. Every buyer has to accept the price decided by market forces of demand and supply. In this way, all buyers are price takers and not price makers. This also ensures existence of single price in market.

3. Homogenous Product

In this case, all sellers produce homogeneous i.e. perfectly identical products. All products are perfectly same in terms of size, shape, taste, colour, ingredients, quality, trade marks etc. This ensures the existence of single price in the market.

4. Zero Advertisement Cost

Since all products are identical in features like quality, taste, design etc., there is no scope for product differentiation. So advertisement cost is nil.

5. Free Entry and Exit

There are no restrictions on entry and exit of firms. This feature ensures existence of normal profit in perfect competition. When profit is more, new firms enter the market and this leads to competition. Entry of new firms competing with each other results into increase in supply and fall in price. So, this reduces profit from abnormal to normal level.
When profit is low (below normal level), some firms may exit the market. This leads to fall in supply. So remaining firms raise their prices and their profits go up. So again this ensures normal level of profit.

6. Perfect Knowledge

On the front of both, buyers and sellers, perfect knowledge regarding market and pricing conditions is expected. So, no buyer will pay price higher than market price and no seller will charge lower price than market price.

7. Perfect Mobility of Factors

This feature is essential to keep supply at par with demand. If all factors are easily mobile (moveable) from one line of production to another, then it becomes easy to adjust supply as per demand.
Whenever demand is more additional factors should be moved into industry to increase supply and vice versa. In this way, with the help of stable demand and supply, we can maintain single price in the Market.

8. No Government Intervention
Since market has been controlled by the forces of demand and supply, there is no government intervention in the form of taxes, subsidies, licensing policy, control over the supply of raw materials, etc.

9. No Transport Cost
It is assumed that buyers and sellers are close to market, so there is no transport cost. This ensures existence of single price in market.

IMPERFECT COMPETITION
It is an important market category wherein individual firms exercise control over the price to a smaller or larger degree depending upon the degree of imperfection present in a case.

Monopoly

1. The term monopoly is derived from Greek words '*mono*' which means single and '*poly*' which means seller. So, monopoly is a market structure, where there only a single seller producing a product having no close substitutes.
2. This single seller may be in the form of an individual owner or a single partnership or a Joint Stock Company. Such a single firm in market is called monopolist. Monopolist is price maker and has a control over the market supply of goods. But it does not mean that he can set both price and output level. A monopolist can do either of the two things i.e. price or output. It means he can fix either price or output but not both at a time.

Characteristics / Features of Monopoly
Following are the features or characteristics of Monopoly :-

1. A single seller has complete control over the supply of the commodity.
2. There are no close substitutes for the product.
3. There is no free entry and exit because of some restrictions.

4. There is a complete negation of competition.
5. Monopolist is a price maker.
6. Since there is a single firm, the firm and industry are one and same i.e. firm coincides the industry.
7. Monopoly firm faces downward sloping demand curve. It means he can sell more at lower price and vice versa. Therefore, elasticity of demand factor is very important for him.

Classification / Kinds / Types of Monopoly

1. Perfect Monopoly

It is also called as absolute monopoly. In this case, there is only a single seller of product having no close substitute; not even remote one. There is absolutely zero level of competition. Such monopoly is practically very rare.

2. Imperfect Monopoly

It is also called as relative monopoly or simple or limited monopoly. It refers to a single seller market having no close substitute. It means in this market, a product may have a remote substitute. So, there is fear of competition to some extent e.g. Mobile (Cellphone) telcom industry (e.g. vodaphone) is having competition from fixed landline phone service industry (e.g. BSNL).

3. Private Monopoly

When production is owned, controlled and managed by the individual, or private body or private organization, it is called private monopoly. e.g. Tata, Reliance, Bajaj, etc. groups in India. Such type of monopoly is profit oriented.

4. Public Monopoly

When production is owned, controlled and managed by government, it is called public monopoly. It is welfare and service oriented. So, it is also called as 'Welfare Monopoly' e.g. Railways, Defence, etc.

5. Simple Monopoly

Simple monopoly firm charges a uniform price or single price to all the customers. He operates in a single market.

6. Discriminating Monopoly

Such a monopoly firm charges different price to different customers for the same product. It prevails in more than one market.

7. Legal Monopoly

When monopoly exists on account of trademarks, patents, copy rights, statutory regulation of government etc., it is called legal monopoly. Music industry is an example of legal monopoly.

8. Natural Monopoly

It emerges as a result of natural advantages like good location, abundant mineral resources, etc. e.g. Gulf countries are having monopoly in crude oil exploration activities because of plenty of natural oil resources.

9. Technological Monopoly

It emerges as a result of economies of large scale production, use of capital goods, new production methods, etc. E.g. engineering goods industry, automobile industry, software industry, etc.

10. Joint Monopoly

A number of business firms acquire monopoly position through amalgamation, cartels, syndicates, etc, it becomes joint monopoly. e.g. Actually, pizza making firm and burger making firm are competitors of each other in fast food industry. But when they combine their business, that leads to reduction in competition. So they can enjoy monopoly power in market.

Monopolistic Competition

1. Pure monopoly and perfect competition are two extreme cases of market structure. In reality, there are markets having large number of producers competing with each other in order to sell their product in the market. Thus, there is monopoly on one hand and perfect competition on other hand. Such a mixture of monopoly and perfect competition is called as monopolistic competition. It is a case of imperfect competition.
2. Monopolistic competition has been introduced by American economist Prof. Edward Chamberlin, in his book 'Theory of Monopolistic Competition' published in 1933.

Features of Monopolistic Competition ↓

The following are the features or characteristics of monopolistic competition :-

1. Large Number of Sellers

There are large number of sellers producing differentiated products. So, competition among them is very keen. Since number of sellers is large, each seller produces a very small part of market supply. So no seller is in a position to control price of product. Every firm is limited in its size.

2. Product Differentiation

It is one of the most important features of monopolistic competition. In perfect competition, products are homogeneous in nature. On the contrary, here, every producer tries to keep his product dissimilar than his rival's product in order to maintain his separate identity. This boosts up the competition in market. So, every firm acquires some monopoly power.

3. Freedom of Entry and Exit

This feature leads to stiff competition in market. Free entry into the market enables new firms to come with close substitutes. Free entry or exit maintains normal profit in the market for a longer span of time.

4. Selling Cost

It is a unique feature of monopolistic competition. In such type of market, due to product differentiation, every firm has to incur some additional expenditure in the form of selling cost. This cost includes sales promotion expenses, advertisement expenses, salaries of marketing staff, etc.

But on account of homogeneous product in perfect competition and zero competition in monopoly, selling cost does not exist there.

5. Absence of Interdependence

Large numbers of firms are different in their size. Each firm has its own production and marketing policy. So no firm is influenced by other firm. All are independent.

6. Two Dimensional Competition

Monopolistic competition has two types of competition aspects viz.

i. Price competition i.e. firms compete with each other on the basis of price.

ii. Non price competition i.e. firms compete on the basis of brand, product quality advertisement.

7. Concept of Group

In place of Marshallian concept of industry, Chamberlin introduced the concept of Group under monopolistic competition. An industry means a number of firms producing identical product. A group means a number of firms producing differentiated products which are closely related.

8. Falling Demand Curve

In monopolistic competition, a firm is facing downward sloping demand curve i.e. elastic demand curve. It means one can sell more at lower price and vice versa.

Oligopoly

The term oligopoly is derived from two Greek words: 'oligi' means few and 'polein' means to sell. Oligopoly is a market structure in which there are only a few sellers (but more than two) of the homogeneous or differentiated products. So, oligopoly lies in between monopolistic competition and monopoly.

Oligopoly refers to a market situation in which there are a few firms selling homogeneous or differentiated products. Oligopoly is, sometimes, also known as 'competition among the few' as there are few sellers in the market and every seller influences and is influenced by the behaviour of other firms.

Example of Oligopoly:

In India, markets for automobiles, cement, steel, aluminium, etc, are the examples of oligopolistic market. In all these markets, there are few firms for each particular product.

DUOPOLY is a special case of oligopoly, in which there are exactly two sellers. Under duopoly, it is assumed that the product sold by the two firms is homogeneous and there is no substitute for it. Examples where two companies control a large proportion of a market are: (i) Pepsi and Coca-Cola in the soft drink market; (ii) Airbus and Boeing in the commercial large jet aircraft market; (iii) Intel and AMD in the consumer desktop computer microprocessor market.

Types of Oligopoly:

1. Pure or Perfect Oligopoly:

If the firms produce homogeneous products, then it is called pure or perfect oligopoly. Though, it is rare to find pure oligopoly situation, yet, cement, steel, aluminum and chemicals producing industries approach pure oligopoly.

2. Imperfect or Differentiated Oligopoly:

If the firms produce differentiated products, then it is called differentiated or imperfect oligopoly. For example, passenger cars, cigarettes or soft drinks. The goods produced by different firms have their own distinguishing characteristics, yet all of them are close substitutes of each other.

3. Collusive Oligopoly:

If the firms cooperate with each other in determining price or output or both, it is called collusive oligopoly or cooperative oligopoly.

4. Non-collusive Oligopoly:

If firms in an oligopoly market compete with each other, it is called a non-collusive or non-cooperative oligopoly.

Features of Oligopoly:

The main features of oligopoly are elaborated as follows:

1. Few firms:

Under oligopoly, there are few large firms. The exact number of firms is not defined. Each firm produces a significant portion of the total output. There exists severe competition among different firms and each firm try to manipulate both prices and volume of production to outsmart each other. For example, the market for automobiles in India is an oligopolist structure as there are only few producers of automobiles.

The number of the firms is so small that an action by any one firm is likely to affect the rival firms. So, every firm keeps a close watch on the activities of rival firms.

2. Interdependence:

Firms under oligopoly are interdependent. Interdependence means that actions of one firm affect the actions of other firms. A firm considers the action and reaction of the rival firms

while determining its price and output levels. A change in output or price by one firm evokes reaction from other firms operating in the market.
For example, market for cars in India is dominated by few firms (Maruti, Tata, Hyundai, Ford, Honda, etc.). A change by any one firm (say, Tata) in any of its vehicle (say, Indica) will induce other firms (say, Maruti, Hyundai, etc.) to make changes in their respective vehicles.

3. Non-Price Competition:
Under oligopoly, firms are in a position to influence the prices. However, they try to avoid price competition for the fear of price war. They follow the policy of price rigidity. Price rigidity refers to a situation in which price tends to stay fixed irrespective of changes in demand and supply conditions. Firms use other methods like advertising, better services to customers, etc. to compete with each other.
If a firm tries to reduce the price, the rivals will also react by reducing their prices. However, if it tries to raise the price, other firms might not do so. It will lead to loss of customers for the firm, which intended to raise the price. So, firms prefer non- price competition instead of price competition.

4. Barriers to Entry of Firms:
The main reason for few firms under oligopoly is the barriers, which prevent entry of new firms into the industry. Patents, requirement of large capital, control over crucial raw materials, etc, are some of the reasons, which prevent new firms from entering into industry. Only those firms enter into the industry which is able to cross these barriers. As a result, firms can earn abnormal profits in the long run.

5. Role of Selling Costs:
Due to severe competition ‘and interdependence of the firms, various sales promotion techniques are used to promote sales of the product. Advertisement is in full swing under oligopoly, and many a times advertisement can become a matter of life-and-death. A firm under oligopoly relies more on non-price competition.
Selling costs are more important under oligopoly than under monopolistic competition.

6. Group Behaviour:
Under oligopoly, there is complete interdependence among different firms. So, price and output decisions of a particular firm directly influence the competing firms. Instead of independent price and output strategy, oligopoly firms prefer group decisions that will

protect the interest of all the firms. Group Behaviour means that firms tend to behave as if they were a single firm even though individually they retain their independence.

7. Nature of the Product:

The firms under oligopoly may produce homogeneous or differentiated product.
i. If the firms produce a homogeneous product, like cement or steel, the industry is called a pure or perfect oligopoly.
ii. If the firms produce a differentiated product, like automobiles, the industry is called differentiated or imperfect oligopoly.

8. Indeterminate Demand Curve:

Under oligopoly, the exact behaviour pattern of a producer cannot be determined with certainty. So, demand curve faced by an oligopolist is indeterminate (uncertain). As firms are inter-dependent, a firm cannot ignore the reaction of the rival firms. Any change in price by one firm may lead to change in prices by the competing firms. So, demand curve keeps on shifting and it is not definite, rather it is indeterminate.

Duopoly

Duopoly is a limiting case of oligopoly, in the sense that it has all the characteristics of oligopoly except the number of sellers which are only two increase of duopoly as against a few in oligopoly. The main distinguishing feature of duopoly (and also of oligopoly) from other market situating is that the sellers' decisions are not independent of each other.
A change in price and output by our seller affect the former, and now the former may have to react. This process of action- reaction of the sellers may continue. This when a duopolist (or an oligopolist) takes any policy decision he also takes into account the reactions of his rivals. That is, such a market situation is characteristics by the mutual interdependence in policy-making.

Thus, Oligopoly is a situation where a few large firms complete against each other and there is an element of interdependence in the decision making of these firms. Each firm in the oligopoly recognizes this interdependence.
Any decision one firm makes (be it on price, product or promotion) will affect the trade of the competitors and so results in countermoves.

In order to differentiate oligopoly situation from perfect and monopoly situations, it is essential to understand the following main features of oligopoly:

(a) Small number of large sellers.
(b) Interdependence.
(c) Presence of monopoly element—so long products are differentiated, the firms enjoy some monopoly power, as each product will have some loyal customers.
(d) Existence of price rigidity.
(e) Advertising—Given high Gross elasticity demand for products and price rigidity in oligopoly the only way open to oligopolist is to raise his sales volume by either advertising or improving the quality.
Advertisement expenditure is aimed primarily at shifting the demand in favour of the product.

Examples are:
Pepsi and Coca-Cola soft drinks.

Price Determination under Perfect Competition

1. In prefect competition, price is determined by the market forces of demand and supply. All buyers and sellers are price takers and not price makers. Buyer represents demand side in the market. Every rational buyer aims at maximising his satisfaction by purchasing more at lower price and lower at higher price. This is called demand behaviour of buyer i.e. Law of Demand.
2. Seller represents supply side in the market. Every rational seller aims at maximizing his profits by selling more at higher price and lesser at lower price. This is called supply behaviour of seller i.e. Law of supply. But at a common price, buyer is ready to demand a particular quantity of goods and seller is also ready to supply exactly the same quantity of goods to buyer, such common price is called 'Equilibrium Price' and such quantity is called 'Equilibrium Quantity'.

"***Equilibrium Price is a price which equates both demand and supply***".

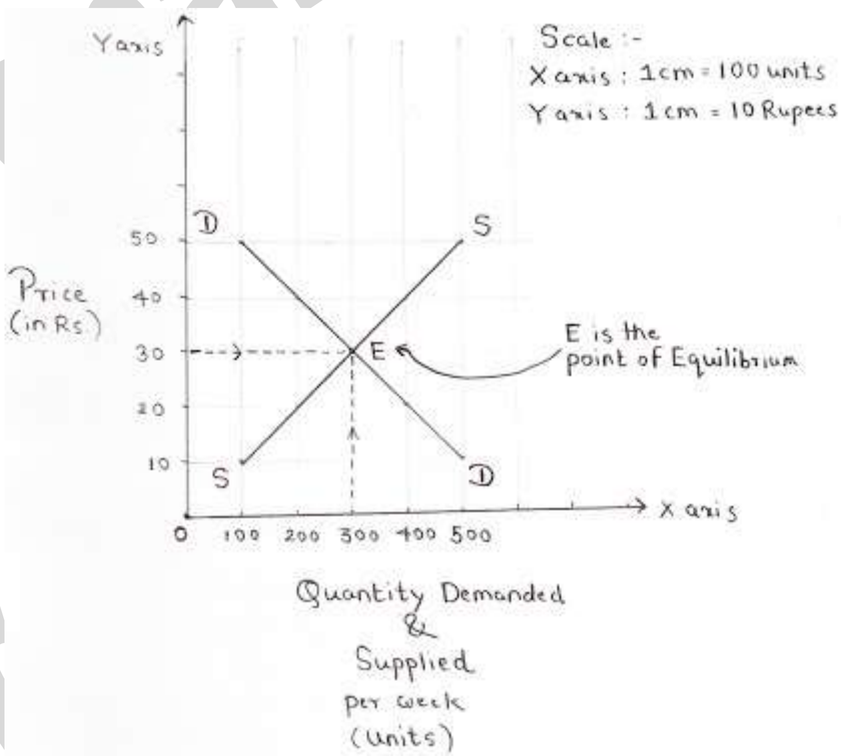
Table - Sample Demand and Supply Schedules

Demand and Supply Schedules

Price per unit of commodity	Quantity demanded per week	Quantity Supplied per week
(Rs.)	(Units)	(Units)
50	100	500
40	200	400
30	300	300
20	400	200
10	500	100

It is the price at which total demand is exactly equal to total supply. Graphically it is the point where DD curve and SS curve intersect each other.

Graph - Equilibrium Price Determination



In the above graphical diagram, the following points have been observed :-

1. On X axis, quantity demand and supplied per week has been given and on Y axis, price has been given.
2. Buyers are purchasing more at lower price and vice versa. This negative relationship is shown by downward sloping DD curve.

3. Sellers are selling more at higher price and vice versa. This positive relationship is shown by upward sloping SS curve.
4. As per the data given in table, Rs. 30 is that price at which demand equates supply (300 units). So, Rs. 30 is an equilibrium price and 300 units is an equilibrium quantity.
5. Suppose, price fails to Rs. 20/-, So this results into increase in demand (as per Law of Demand) and decrease in supply (as per Law of Supply). Since DD > SS, i.e. because of low supply, sellers will be dominant and competition will be among buyers, this leads to rise in price level. (i.e. from Rs. 20 to Rs. 30) Again price will come back at original level i.e. equilibrium price (Rs. 30).
6. Suppose, supply exceeds demand (DD < SS) now buyers become dominant and competition will be among sellers. This leads to downfall in price. (i.e. from Rs. 40 to Rs.30). Again price will come back to original level. i.e. equilibrium price (Rs. 30).
7. Such automatic adjustment by demand and supply forces will keep single price in market.

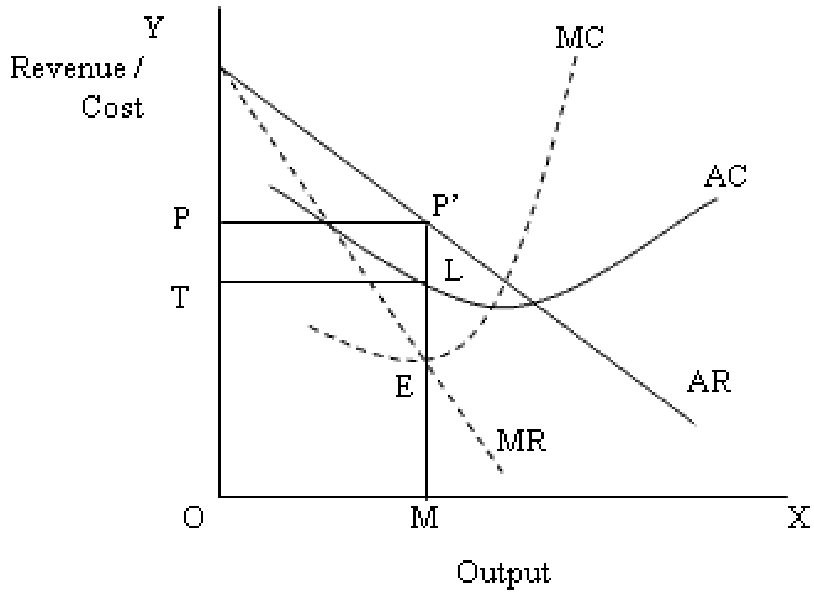
Price Determination under Monopoly

1. *Monopoly is that market form in which a single producer controls the whole supply of a single commodity which has no close substitute.*
2. From this definition there are two points that must be noted:

(i) **Single Producer:** There must be only one producer who may be an individual, a partnership firm or a joint stock company. Thus single firm constitutes the industry. The distinction between firm and industry disappears under conditions of monopoly.

(ii) **No Close Substitute:** The commodity produced by the producer must have no closely competing substitutes, if he is to be called a monopolist. This ensures that there is no rival of the monopolist. Therefore, the cross elasticity of demand between the product of the monopolist and the product of any other producer must be very low.

3. A firm under monopoly faces a downward sloping demand curve or average revenue curve. Further, in monopoly, since average revenue falls as more units of output are sold, the marginal revenue is less than the average revenue. In other words, under monopoly the MR curve lies below the AR curve.
4. The Equilibrium level in monopoly is that level of output in which marginal revenue equals marginal cost. The producer will continue producer as long as marginal revenue exceeds the marginal cost. At the point where MR is equal to MC the profit will be maximum and beyond this point the producer will stop producing.



5. It can be seen from the diagram that up till OM output, marginal revenue is greater than marginal cost, but beyond OM the marginal revenue is less than marginal cost. Therefore, the monopolist will be in equilibrium at output OM where marginal revenue is equal to marginal cost and the profits are the greatest. The corresponding price in the diagram is MP' or OP. It can be seen from the diagram at output OM, while MP' is the average revenue, ML is the average cost, therefore, P'L is the profit per unit. Now the total profit is equal to P'L (profit per unit) multiply by OM (total output).
6. In the short run, the monopolist has to keep an eye on the variable cost, otherwise he will stop producing. In the long run, the monopolist can change the size of plant in response to a change in demand. In the long run, he will make adjustment in the amount of the factors, fixed and variable, so that MR equals not only to short run MC but also long run MC.

Price Determination under Monopolistic Competition:

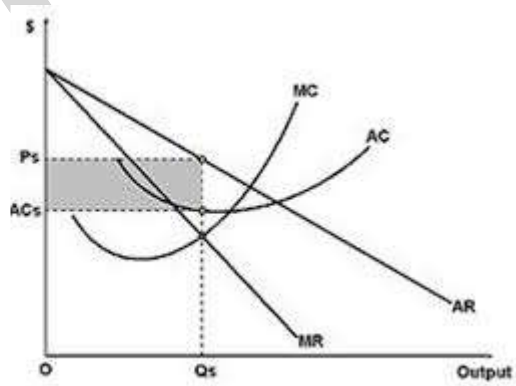
Now the question arises at which price-output level the monopolistic competitive firm will be in equilibrium position? Here we have to remember that every seller, whether a monopolist or one working under perfectly or imperfectly competitive situations, wants to maximise his profits.

The seller will go on producing till the extra receipts to be had from additional production exceed the extra cost incurred in the production process. In other words, profits will be maximised when marginal revenue is equal to marginal cost. So long as marginal revenue is greater than marginal cost, the seller will find it profitable to expand his output, and if marginal revenue is less than marginal cost, obviously it is to his advantage to reduce his output to the point where marginal revenue is equal to marginal cost. In the short run, therefore, the firm will be in equilibrium when it is maximising its profits, i.e., when

Marginal Revenue = Marginal Cost

In the short run, a monopolistically competitive firm may either realise abnormal profits or be faced with losses. But, in the long run, such supernormal profits disappear. This is because we assume that entry is free and new firms will enter the industry if the existing firms are making supernormal profits.
As new firms enter and start production, the demand curve or average revenue curve faced by the firms will fall (shift to the left) and, therefore, the supernormal profits will be competed away, and the firms will be earning only normal profits.
Similarly, if in the short run firms are suffering losses, then in the long run some firms will leave the industry so that the remaining firms are able to earn normal profits. Another point which is to be noted in regard to the long-run equilibrium under monopolistic competition is that average revenue curve in the long run will be more elastic, since large number of substitutes will be available in the long run. Therefore, in the long run, equilibrium is restored when firms are earning only normal profits. Now, profits are normal only when
Average Revenue = Average Cost.
Therefore, equilibrium in the long run under imperfect competition holds when

Average Revenue = Average Cost.

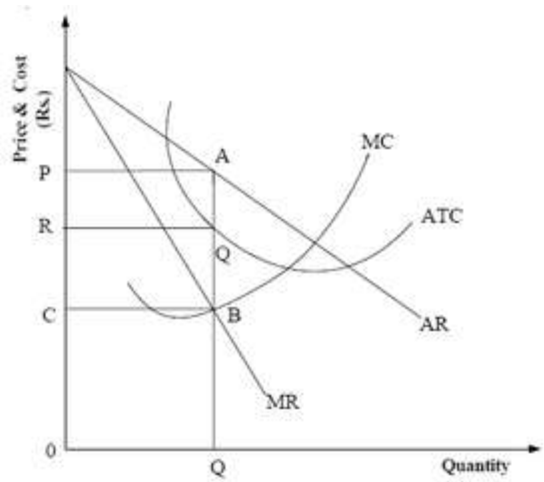


Price determination under Oligopoly:
In an oligopoly, the number of sellers is small as against a sole seller under monopoly and many sellers under monopolistic completion.

Principal Characteristics of Oligopoly
The principal features of oligopoly are as under:
(i) Interdependence:
Owing to a small number of sellers, the price-output decisions of one firm are taken note of by other firms and affect their decisions too.
(ii) Indeterminate Demand Curve:
Since no firm is able to predict the reaction or behaviour of other firms consequent on price output decision of one firm, there is uncertainty, and no firm can be sure of the quantity of the commodity it can sell at a price. The demand curve is thus indeterminate.
(iii) High Pressure Salesmanship:
There being only a small number of firms in the field, there is a tendency for a firm in oligopoly to increase its selling costs and indulge in advertisement so that it may capture as much of the market as possible. There is a counter-campaign by the rivals.

(iv) Sticky Prices:
In order to avoid adverse reaction by the rivals, there is a tendency for the firms to avoid changing the price of their products. Hence comparative price stability rules in the oligopolistic market.

How is Price Determined under Oligopoly?
Since price-output decisions by one firm affect the decisions of other firms, nobody can be sure of their reaction. As pointed out above, the demand curve is indeterminate and no single price-output decision is possible.


Price & Cost (Rs.)
P
R
C
0
A
Q
B
MC
ATC
AR
MR
Q
Quantity