renaissance
college of commerce & management

BBA 1st Year **Subject- Business Economics**

SYLLABUS

BBA Class – I Year

UNIT – I	**Economics:** Meaning, Definitions, Nature, and Scope of Economics, Contribution of Kautilya in Indian Economic Thought.
UNIT – II	**Managerial Economics** - Meaning and Definitions, Characteristics, Functions and Importance, Role of Business Economics in Business Decision Making, Functions and Responsibilities of a Business.
UNIT – III	**Methods of Economic Study** Approaches to Economic Study: Inductive and Deductive Methods. Inductive Method: Meaning, Nature, History, Merits and Demerits. Deductive Method: Meaning, Nature, History, Merits and Demerits. Difference and Utility of both methods.
UNIT – IV	**Law of Demand -** Meaning, Factors affecting demand, Types of demand, Law of demand and exceptions, Measurement of demand, Demand forecasting.
UNIT – V	**Concept of Market** - Meaning, Definitions, Classification, Perfect Competition, Imperfect Competition, and Monopoly Concept, Pricing and Firm Equilibrium.

BBA 1st Year **Subject- Business Economics**

Unit I

Meaning of Economics

Economics is the study of how humans make decisions in the face of scarcity. These can be individual decisions, family decisions, business decisions or societal decisions. If you look around carefully, you will see that scarcity is a fact of life. **Scarcity** means that human wants for goods, services and resources exceed what is available. Resources, such as labor, tools, land, and raw materials are necessary to produce the goods and services we want but they exist in limited supply. Of course, the ultimate scarce resource is time – everyone, rich or poor, has just 24 hours in the day to try to acquire the goods they want. At any point in time, there is only a finite amount of resources available.

Does everyone need food to eat? Does everyone need a decent place to live? Does everyone have access to healthcare? In every country in the world, there are people who are hungry, homeless, and in need of healthcare, just to focus on a few critical goods and services. Why is this the case? It is because of scarcity.

Definition of Economics

The term "Economics" was originally derived from the two Greek word "Oikos" which means household and "Nomos" which means management. Thus, it refers to managing of a household using the limited funds.

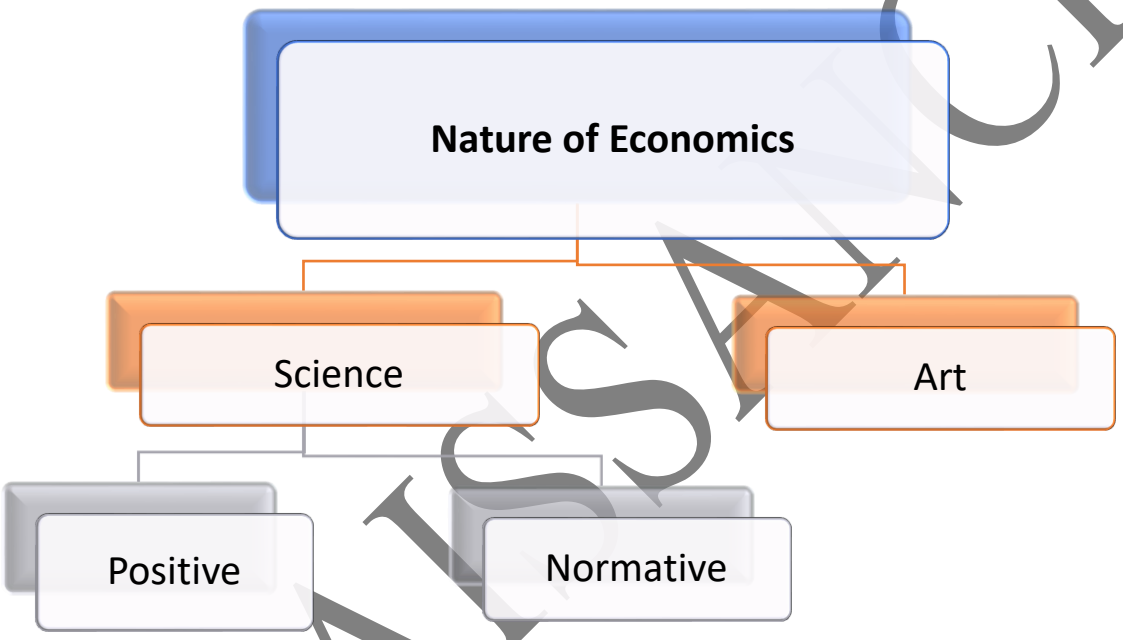
Many economists like Stigler, Samuelson, Macifie, Oscar Lange, Sciovosky, have given definition of economics –

1. **Stonier and Hagur** - Economics is fundamentally a study of scarcity and the problems which gives rise to scarcity.
2. **Scitovosky** - Economic is a science concerned with the administration of scarce recourses
3. **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.
4. **K.E. Boulding** – Micro economics is the study of particular firms, particular households, individual prices, wages, incomes, individual industries and particular commodities.
5. **Shapiro** – Micro economics deals with small parts of the economy.
6. **Standard definition** - 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.

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.

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

On the basis of arguments given above, we can say that Economics is a science. It explores the facts; analysis them & classifies them.

The economics as a science can be divided into two parts i.e. (a) Positive Science and (b) Normative Science.

I. **Economics as a Positive Science –** A positive science establishes a relation between cause and effect. It tells us that if we do a certain thing, same result will follow.

II. **Economics as A Normative Science –** Marshall, Pigou and historical school puts the arguments that economics is normative science i.e. it states: What should be done.

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.

Therefore, a positive science describes what is and a normative science describes what should be done & what should not be done.

Positive Economics is of two types: Description and Theory.

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:

- A rise in consumer incomes will lead to a rise in the demand for new cars.
- A fall in the exchange rate will lead to an increase in exports overseas.
- More competition in markets can lead to lower prices for consumers.
- If the government raises the tax on beer, this will lead to a fall in profits of the brewers.
- A reduction in income tax will improve the incentives of the unemployed to search for work.

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:

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

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.M. 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.

SCOPE OF ECONOMICS

Economics is not primarily a collection of facts to be memorized, though there are plenty of important concepts to be learned. Instead, economics is better thought of as a collection of questions to be answered or puzzles to be worked out. Most important, economics provides the tools to work out those puzzles.

Virtually every major problem facing the world today, from global warming, to world poverty, to the conflicts in Iran, Ukraine, Syria, Afghanistan, and Somalia, has an economic dimension. If you are going to be part of solving those problems, you need to be able to understand them. Economics is crucial.

It is hard to overstate the importance of economics to good citizenship. You need to be able to vote intelligently on budgets, regulations, and laws in general.

A basic understanding of economics makes you a well-rounded thinker. When you read articles about economic issues, you will understand and be able to evaluate the writer's argument. When you hear classmates, co-workers, or political candidates talking about economics, you will be able to distinguish between common sense and nonsense. You will find new ways of thinking about current events and about personal and business decisions, as well as current events and politics.

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.
12. Microeconomics V/s Macroeconomics

S.No.	Points	Microeconomics	Macroeconomics

BBA 1st Year **Subject- Business Economics**

1	**Study**	It studies individual unit	It studies aggregate or group of individual units.
2	**Assumption**	At micro level full employment is assumed which is never found in an economy. Hence this is an unreal assumption	At macro level, full employment is not assumed. Instead equilibrium employment is assumed which is a real assumption.
3	**Subject Matter**	We study demand supply, consumer behavior production, types of market, theory of cost & revenue etc.	We study national income, theory of wage, interest & employment, Theory of money, theory of international trade etc.
4	**Applicability**	It is useful in analysis of an individual unit like cost of an individual good, demand of a single good, price of a single good.	It is useful in analysis of aggregate units such as aggregate demand, aggregate prices or inflation-deflation, aggregate or national income etc.
5	**Usefulness to Govt.**	It is less useful to Govt. in formulating economic policies.	It is more useful to Govt. in formulating economic policies.

Introduction to Kautilya and his Arthashastra

The original name of **Chanakya** was **Vishnugupta,** minister under Chandragupta Maurya. He was called Chatur, which was known as "Chanakya" in the state. Besides, he believed in a policy that should adopt a cautious policy and accordingly, it is known as "Kautilya" because of the administration of the state. Thus, useful information about how the state administration is done by the Maurya dynasty rulers in ancient India is provided by this scripture. **Arthashastra – science of wealth and welfare** is a very famous treatise on ancient India. It was written around 300 B.C. The book deals with economics, administration, political ideas, ecology and various other topics. The book is divided in to fifteen chapters.

He is India's most illustrious political economist of all time. He was a true statesman who bridged the gap between experience and vision. For him, good governance was paramount. The discussion in Arthashastra is as relevant today as it was in Kautilya's time. He was well-versed with the characteristics of bureaucrats and statesmen and laid down rules to prevent misuse of power. He emphasized the importance of accounting methods in economic enterprises to properly measure economic performance. He explained that no amount of rules and regulations or auditing can prevent unethical behavior and that character-building and action-oriented ethical values were essential.

a. He believed that poverty was death while living. His Arthashastra is a manual on promoting Yogakshema—peaceful enjoyment of prosperity—for all the people.
b. He believed in the power of persuasion, moral and material incentives and not in coercion or force to elicit effort. He designed material incentives in such a way that no crowding-out occurred, that is without weakening the moral incentives.
c. In fact, a stakeholders-model in which the businessmen, workers and consumers share prosperity, is discernible in his Arthashastra.
d. He relied both on the invisible hand (the market) and the direct hand (principles, policies and procedures) to enrich the people.
e. He writes that all the accounts are dependent on the monies. So, give the most attention to treasures. The way in which the king needs help is to find ways to earn income.
f. He further writes that wealthy people should give more wealth. Those who give themselves a few rupees or gold for the welfare of the king will be given government assistance, a government turban or a military garment.
g. Wealth should be protected from thieves and government men.

Kautilya was far-sighted, foresighted, ethical but not very religious, believed in designing an efficient organizational structure but was not a bureaucrat.

The following table lists some of the concepts innovated and used by Kautilya. It also provides the time-periods of their re-emergence.

Concepts developed and used by Kautilya -

S. No.	Re-emerged during the period Concepts	Originated and applied by Kautilya
1	1700-1850	Gains from trade, diversification, Division of labor, Inter- temporal choice, labor theory of property, Law of diminishing returns, moral hazard, regulation of monopoly, sources of economic growth, Duipit Curve, principles of taxation.
2	1850-1900	Distinction short-run and long run, Efficiency Wages, externality, Demand-Supply Apparatus, Opportunity cost, Producer Surplus
3	1900-1970	Principal-agent problem, Liquidity, Mean-Variance approach, non-cooperative game

4	1970- Present	Asymmetric information, piece-wise Linear income Tax, Loss-aversion, information economics, Self-protection, self- insurance, Time Inconsistency, Systemic risk

Kautilya: The True Founder of Economics

Kautilya's Arthashastra is comprehensive, coherent, concise and consistent. It consists of three fully developed but inter-dependent parts.

(a) Principles and policies related to economic growth, taxation, international trade, efficient, clean and caring governance, moral and material incentives to elicit effort and preventive and remedial measures to deal with famines.

(b) Administration of justice, minimization of legal errors, formulation of ethical and efficient laws, labour theory of property, regulation of monopolies and monopsonies, protection of privacy, laws against sexual harassment and child labour.

(c) All aspects of national security: energetic, enthusiastic, well trained and equipped soldiers, most qualified and loyal advisers, strong public support, setting-up an intelligence and analysis wing, negotiating a favourable treaty, military tactics and strategy, and diet of soldiers to enhance their endurance.

Kautilya's Ethics-based Economics:

(a) An ounce of ethics was better than a ton of laws. Ethical anchoring could be more effective in preventing systemic risk than a heap of rules and regulations.

(b) Principles were only as good as the people who practiced them, and policies were only as good as the people who formulate and implement them.

(c) Material incentives should complement and not substitute moral incentives so that there is no crowding- out.

(d) Education should include ethical education also. Secular values, such as non-violence, honesty, truthfulness, compassion and tolerance do not violate the separation between religion and state.

(e) Market failure is bad; government failure is worse but moral failure is the worst since moral failure is true cause for other failures.

(f) Ethics and foresightedness could improve governance and bring sustainable prosperity for the whole of humanity.

(g) Sound organizational design could complement the ethics-based approach by enhancing specialization and reducing the scope for conflict-of-interest situations.

(h) Wisdom is the most valuable asset and knowledge-management is a subset of management by wisdom.

(i) Women should also participate in the work force.

BBA 1st Year **Subject- Business Economics**

UNIT II

Meaning of Managerial Economics:

The subject Managerial Economics is of recent origin. It came into being in the early 1950s. Managerial Economics and Business economics are the two terms, used interchangeably. However, the term Managerial Economics has become more popular and has overcome the term Business Economics. Managerial Economics may be defined as the study of economic theories, logic and methodology which are generally used to provide the solution to the problems faced by the managers in the due course of business. Managerial Economics is thus regarded as that part of economic knowledge or economic theories which is used as a means to analyse various business problems for sound business decisions. Managerial Economics serves as a connecting link between traditional economics and the decision-making sciences for decision making in business.

Definition of Managerial Economics:

"Business Economics (Managerial Economics) is the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management." – Spencer and Seegelman.

Characteristics of Managerial Economics:

There are certain chief characteristics of managerial economics, which can help to understand the nature of the subject matter and help in a clear understanding of the following terms:

1. **Managerial economics**: Positive or Normative: Positive economics is descriptive in nature. It use to describe economic activities as they are. Prof. Lionel Robbins says that economics is a positive science. While normative economics ensures judgments of value. Managerial economics draws from descriptive economics and tries to pass judgments of value in the context of the firm. **Managerial economics is mainly normative in nature.** This nature of Managerial Economics can be illustrated with the help of one example. when an investor goes to a Financial Analyst, he used to tell the fund available, purpose of investment, expected time of return, risk bearing capacity. After listening to the need of the investor using his knowledge, he suggests him the investment avenue in which he can invest in. Same is the case with Managerial economics it is descriptive as well as prescriptive.

2. **Pragmatic and Realistic**: Managerial economics is pragmatic and realistic in nature. The principles of managerial economics are made use of to find the optimal solution to the problems faced by the manager in due course of business which may be related to the choice and allocation of resources. It attempts to ignore the complexities of the traditional economics. But ensures the consideration of the facts that are important for decision making but ignored by traditional economics. Thus, Managerial economics helps to improve the functioning of the organization.

3. **Goal Oriented**: Managerial economics is goal oriented; it aims to achieve the objectives to the best possible extent. Right from the very first activity undertaken by the organization it focuses on the ultimate goal of the organization, be it the profit maximization, wealth maximization or the sales maximization.

4. **Applied science**: Managerial economics attempts to solve the business problem by identifying the cause-and-effect relationship between the variables. Managerial economics also analyses the effect of change in one variable on the other.

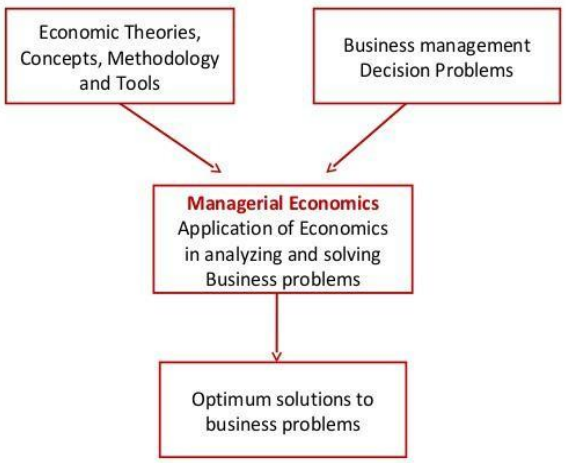
5. **Related to other Disciplines**: It makes use of the services of many other related sciences like mathematics, statistics, engineering, accounting, operation research and psychology etc to find solutions to business and management problems. Managerial economics is also found to be in close relation with statistics. In business Managers have to go with the estimates of demand, market trends, probabilities regarding supply. Statistics as an important tool helps to study the various functional relationships and also facilitate forecasting. Operations Research is now largely used in planning and controlling business activities. The various concepts of mathematics that are used by a managerial economist are logarithms and exponential, geometry, algebra and calculus, vectors and determinants, input-out tables.

6. **Applied Economic Theory**: Managerial economics is economics which is applied in decision-making process. Managerial economics attempts to links abstract theory with managerial practice. Economics is also concerned with the problem of allocating limited resources among unlimited wants. It involves the practical application of economic theory and methodology to decision- making problems faced by the various private, public and non-profit making organizations. It helps in optimal decision making.

7. **Economics is an art**: Economics when observed as an art, it is practical. The various branches of economics such as public finance, consumption, production, etc. provide practical and optimal solutions to various economic problems. It helps managers in solving various economic problems which they face in their day-to-day business affairs.

FUNCTIONS OF MANAGERIAL ECONOMICS:

There is no general uniform pattern regarding the scope of managerial economics. However, the following areas encompass scope of managerial economics:



1. **Demand Analysis and Forecasting:** The very reason for the operation of any business firm is the demand for its product in the market. All significant decisions of the firm depend upon the correct estimation in demand analysis managers seeks to collect information about the various factors which are going to affect demand for a firm's product, various substitutes available in the market and trends prevailing in the market. All these factors have important bearing on the production schedules. Demand analysis and forecasting is therefore really essential for planning business activities and occupies a relevant place in managerial economics.

2. **Cost Analysis:** Another important area of managerial economics is cost analysis. Whenever managers plan for production, the foremost factors that comes to their mind is the cost of production. Cost analysis facilitates management decisions. The factor that leads to variations in costs is beyond the control of managers and therefore must be recognized. In the absence of cost estimates, one may not be able to properly plan its profits & also not able to determine its pricing policies. 3. Production Analysis Managers while planning for production pays attention to the relation between cost and output, what are the various factors of production which are required to carry on manufacturing, what is the behavior of various cost in relation to the factors, how far we are able to achieve economies of scale. Thus, production analysis also another important domain.

4. **Pricing Policies:** Pricing is a very important area of managerial economics. Managers have to spent a lot of time on forecasting & determining the price of products in the various market structures as price acts as a major source of revenue. There are various methods to determine the prices but the choice of right method is the greatest challenge. Wrong pricing decision will turn the firm out of the market. An accurate pricing decision contributes a lot to the success of a business firm.

5. **Profit Management:** The ultimate objective of any economic organization is to earn handsome profits & is considered as the barometer of success. But we also know that the future is` always uncertain. There is uncertainty on account of various factors such as social, political, economic factors, which acts as a obstacle in our way of objective. Thus, profit planning and management is regarded as the important area of managerial economics.

6. **Capital Management:** Capital is regarded as the most important resource and also require greater attention of the managers. capital expenditure not only have the binding on the present but also on the future profits & once such decisions are taken these are irreversible. Therefore, manager do keep focus on this aspect.

7**. Advertising**: Since decision making and forward planning are the important areas of managerial economics, therefore the managers have to plan many things about the product they are going to launch in the market. The various activities in this regard are its design, shape, quantity, deciding about the marketing of good etc. In this context advertising is important area of managerial Economics.

8. **Environmental issues**: There are many areas of macroeconomics which also becomes part of managerial economics, since the business organization can't work in isolation. These areas are related to general business, social, political and demographic environment in which a business enterprise works. All these issues have great bearing on Business activities.

9. **Business cycles**: Business cycles also seem to affect business decisions. Business cycles are regular fluctuations in economic activities in the country. The various phases that constitute business cycle are depression, recovery, boom and recession. Therefore, managers have to modify their plans according to the phase through which the business is passing out.

IMPORTANCE OF MANAGERIAL ECONOMICS:

Managerial Economics has become a highly useful and practical discipline now days as it helps to analyze and offers best s solutions to various kinds of problems faced in routine affairs of the organisation in a systematic and realistic manner. The following points highlights significance of the managerial economics: 1. **Better allocation of resources**: Managerial economics not only offers the better allocation of scarce resources among competing ends but also ensure the proper utilization of resources.

2. **Right decision at the right time**: It helps the executives working in the firm to understand the various details of business and problems encountered and to take right decision at the right time by the identification of key variables in decision-making process. Thus, managerial economics attempt to avoid the complexities of wrong decisions. Every manager has to take various relevant decisions about the utilization of limited resources like land, capital, labor, funds etc. to get the maximum returns, therefore, managerial economics, concentrates on practical aspects which facilitates decision-making.

3. **Identification of Problems**: In today's scenario economy is becoming highly competitive and dynamic, it helps in identifying various business and managerial problems, their causes and consequence, and suggests various policies and programs to overcome them.

4. **Offers tools and techniques:** Managerial economics ensures availability of the various conceptual and technical skills, tools of analysis and techniques of judgment and other modern tools and instruments like elasticity of demand and supply, cost and revenue, income and expenditure, profit and volume of production etc to solve various dynamic problems of business.

5. **Attainment of business objectives**: Managerial economics helps the business executives to become more responsive, realistic and competent to overcome upcoming challenges in the dynamic business scenario. This in turn facilitates achievement of various objectives like profit and wealth maximization, society welfare, Customer satisfaction, attaining industry leadership, market share expansion and social responsibilities etc.

6. **Facilitates decision making and forward planning**: Managerial Economics enables decision making and forward planning by the evaluation of alternatives available to the managers.

7. **Understanding the various external factors**: It also helps in understanding and analyzing the various external factors which affect the decision-making of an organisation and ultimately affecting the functioning and the success of the firm.

ROLE OF BUSINESS ECONOMICS IN DECISION MAKING

Business economics plays a crucial role in decision-making within organizations by providing a framework for analyzing various economic factors that influence business operations. Here are several key aspects of how business economics contributes to decision-making:

1. **Cost Analysis**: Business economics helps in understanding and analyzing costs associated with production, marketing, and operations. This includes fixed and variable costs, which are essential for pricing strategies and profitability analysis.
2. **Demand Forecasting**: It aids in predicting consumer behavior and demand for products or services. By using concepts from microeconomics, businesses can estimate future sales and adjust their production and inventory strategies accordingly.
3. **Market Structure Analysis**: Understanding the competitive landscape is vital for strategic planning. Business economics provides insights into different market structures (e.g., perfect competition, monopoly, oligopoly) and helps firms position themselves effectively within their market.
4. **Pricing Strategies**: It assists in determining optimal pricing strategies based on demand elasticity, competitor pricing, and market conditions. This is crucial for maximizing revenue and market share.
5. **Investment Decisions**: Business economics provides tools for evaluating capital projects and investments, such as cost-benefit analysis and break-even analysis, helping firms make informed decisions about resource allocation.
6. **Risk Assessment**: It helps in identifying, analyzing, and mitigating risks associated with business operations and market fluctuations. Understanding economic indicators and trends can inform risk management strategies.
7. **Policy Formulation**: Businesses can use economic theories to develop policies that align with their strategic goals. This includes labor policies, production policies, and pricing policies that consider the broader economic environment.
8. **Performance Evaluation**: Business economics provides metrics and frameworks for analyzing business performance, allowing managers to assess the effectiveness of their strategies and make necessary adjustments.

9. **Understanding External Factors**: It helps businesses understand how macroeconomic factors (like inflation, interest rates, and economic growth) affect their operations and market conditions, enabling them to adapt to changes in the external environment.

In summary, business economics equips decision-makers with analytical tools and economic principles necessary for making informed, strategic choices that enhance efficiency and profitability.

ROLE AND RESPONSIBILITY OF A MANAGERIAL ECONOMIST:

A managerial economist realistic attitude can lead the firm to the path of success. He uses his analytical skills in solving complex aspects of successful decision-making and future planning. Since the ultimate goal of any economic organization is to make profits, therefore managerial economist also woks and serves the firm by working for the same in advanced countries, big firms employ managerial economists to assist the management. The various roles played by him are highlighted as follows:

1. **Acquiring knowledge about Environment**: A firm cannot work in isolation. The internal & external environment surrounds the firm. It is a matter of importance that internal environment is controllable but external environment is beyond the control & has important bearing on business. Right information about the environment helps manager a lot to wisely define the extent and trend of their own business plans. The managerial economist has to study the economic trends and use the same information for the best functioning of his firm.

2. **Participating in Public Debates:** The role of managerial economists is not confined to the four walls of their business firm rather they actively participate in public debates. They are regularly being the source of advice and views are being sought by the government in the formulation of the various national policies as having their hands on experience of the firm and industry.

3. **Efficient Functioning of the Organization**: A managerial economist is the one who keep constant eye on the various factors and operations going in the organization. He ensures the efficient functioning of the organization by helping in formulation of decisions relating to the various areas like price, rate of operations, investment, expansion or contraction, cash availability, wage and price policies , purchase of raw material and production schedules.

4. **Varied Functions:** In the due course of business managerial economists has to perform the various functions such as planning about finance, production, purchase, marketing, sales, making various kinds of forecast, market analysis, determining pricing policies and Practices, acting as an analyst, acting as an adviser and also projecting various technological changes in the market.

5. **Economic Intellect**: Managerial economist uses to provide general intelligence service by providing relevant information in regard to prices fixed by competitors, products offered by them, tax and, tariff rates, trends prevailing in the market, competitive moves, things going on in the international market, new developments taking place in the market, political issues having effect on the business practices.

6. **Cost Benefit Analysis**: Managerial Economist is constantly involved in the process of cost benefit analysis. While taking the various decisions manager gives due consideration to the cost involved in the particular venture and the benefit expected from the same.

7. **Assists in Decision-making**: He helps the decision maker in formulating the decisions relating to internal functioning of a firm like changes in price, plans of investment, type of goods and services to be manufactured, factor inputs to be employed, production techniques to be used, expansion or contraction plans of firm, allocation of funds, location of various plants, quantity of output to be manufactured, replacement of plant equipment, sales forecasting, inventory forecasting, etc.

8. **Maintaining Relationships**: The managerial economists have to undertake forecasting and also have to analyze various situations. For the same he must establish contacts with the sources of data. He maintains contacts with experts in the different fields and must also join trade and professional associations, subscribe to the journals providing him the updates of the market.

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5. **Attainment of business objectives**: Managerial economics helps the business executives to become more responsive, realistic and competent to overcome upcoming challenges in the dynamic business scenario. This in turn facilitates achievement of various objectives like profit and wealth maximization, society welfare, Customer satisfaction, attaining industry leadership, market share expansion and social responsibilities etc.

6. **Facilitates decision making and forward planning**: Managerial Economics enables decision making and forward planning by the evaluation of alternatives available to the managers.

7. **Understanding the various external factors**: It also helps in understanding and analyzing the various external factors which affect the decision-making of an organisation and ultimately affecting the functioning and the success of the firm.

Limitations of Managerial Economics

Every coin has two sides, positive and negative. No doubt managerial economics provides sophisticated tools of analysis and facilitates the decision making initiated by the managers but on the other side it suffers from certain limitations. The various limitations are as follows:

1. Managerial economics has led to the emergence of monopolies for the production of some important product and services. For example: electricity companies, Railways, Telephone companies. These companies exploit the consumers by charging high prices just to earn handsome profits.

2. Small scale companies have to face high degree of competition due to the emergence of Multinational companies in or country, posing threat to the existence of the small firms. Small firms find it difficult to survive in the market.

3. There seems to be great exploitation of worker, due to weak bargaining power of the workers. It is felt that women and child labour are offered very low wages for the work being taken from them.

4. Another limitation of Managerial Economics seems from the emergence of Oligopoly in the market, where firms and producers formally collude with each other or enters into cartel agreement and charge higher price and restricts output.

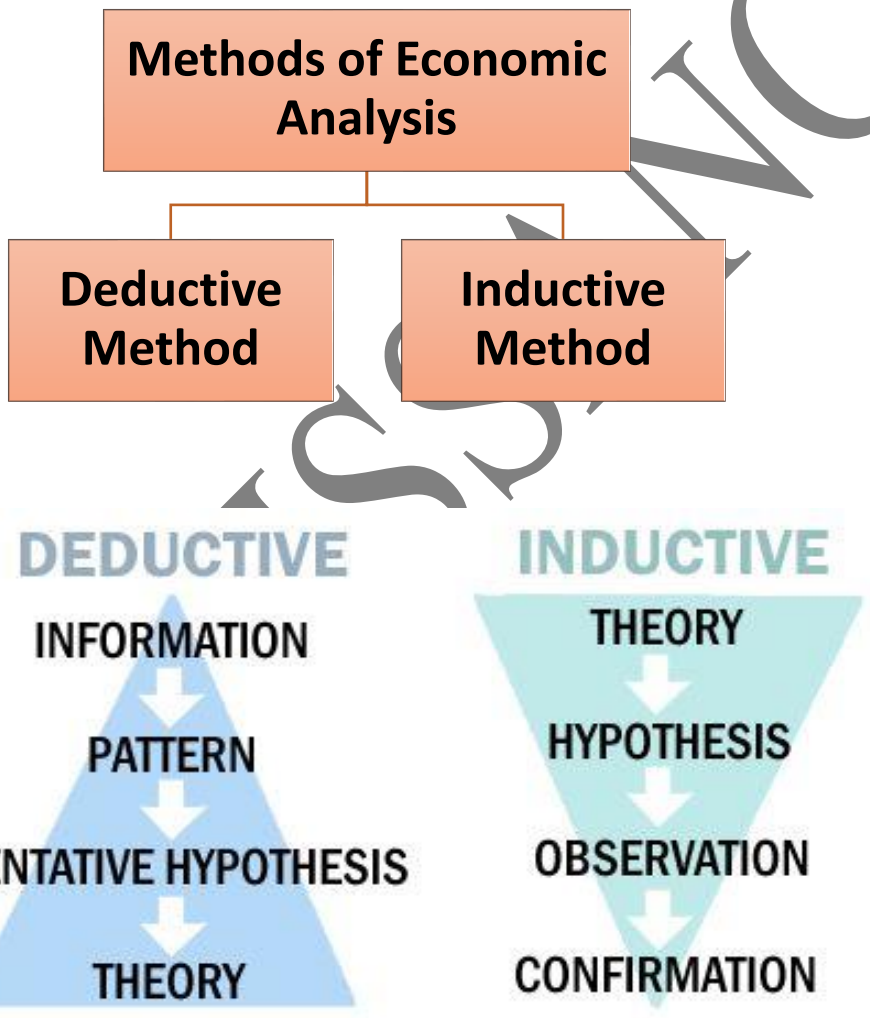
Summary

Managerial Economics has helped a lot to the business community to arrive at the best decision in regard to the various functional areas like demand forecasting, production scheduling, resource mobilisation, planning different activities, control of costs, minimisation of uncertainties, maximisation of profits and wealth etc. leading to the success of the firm and simultaneously achieving the goal of social Responsibility.

UNIT III

Methods of Economic Study

Economic studies employ various methods to analyze and understand economic phenomena. Two primary approaches are the deductive and inductive methods, often used in conjunction with each other. Additionally, economists utilize mathematical and statistical tools, build economic models, and develop theories and laws to explain economic behavior.



An economic theory derives laws or generalizations through two methods:

(1) Deductive Method of Economic Analysis (GENERAL TO PARTICULAR)

The ***deductive method*** is also named as ***analytical***, ***abstract*** or ***prior*** method. The deductive

method consists in deriving conclusions from general truths, takes few general principles and applies them draw conclusions.

For example,

-If it is raining, the ground will be wet. It is raining outside. Therefore, the ground is wet.

-To legally drive, a person must have a valid driver's license. Enna is driving a car. Therefore, Enna must have a valid driver's license.

-To earn a bachelor's degree, a student must have 100 credits. Sally has 120 credits. Therefore, Sally has a bachelor's degree.

History

It has a rich history with roots tracing back to ancient Greece. It was developed and refined by philosophers like Aristotle and later by thinkers during the Scientific Revolution. During the Renaissance and Scientific Revolution, thinkers like René Descartes further refined the deductive method, applying it to scientific inquiry. In Modern Era the deductive method continues to be used in various fields, including mathematics, logic, and computer science. It forms a core component of scientific methodology, often used in conjunction with inductive reasoning. The classical and neo-classical school of economists notably, Ricardo, Senior, Cairnes, J.S. Mill, Malthus, Marshall, Pigou, applied the deductive method in their economic investigations.

NATURE

The deductive method, also known as deductive reasoning or top-down logic, is a process of reasoning where general principles are used to reach specific conclusions. It starts with a broad premise or hypothesis and applies it to specific cases, ensuring the conclusion is true if the premises are true. This method is often used in mathematics, logic, and scientific research to test theories and hypotheses.

Steps of Deductive Method:

The main steps involved in deductive logic are as under:

(i) Perception of the problem to be inquired into: In the process of deriving economic generalizations, the analyst must have a clear and precise idea of the problem to be inquired into.

(ii) Defining of terms: The next step in this direction is to define clearly the technical terms used analysis. Further, assumptions made for a theory should also be precise.

(iii) Deducing hypothesis from the assumptions: The third step in deriving generalizations is deducing hypothesis from the assumptions taken.

(iv) Testing of hypothesis: Before establishing laws or generalizations, hypothesis should be verified through direct observations of events in the rear world and through statistical methods. (Their inverse relationship between price and quantity demanded of a good is a well-established generalization).

Merits of Deductive Method:

The main merits of deductive method are as under:

(i) This method is near to reality. It is less time consuming and less expensive.

(ii) The use of mathematical techniques in deducing theories of economics brings exactness and clarity in economic analysis.

(iii) There being limited scope of experimentation, the method helps in deriving economic theories.

(iv) The method is simple because it is analytical.

Demerits of Deductive Method:

(i) **The deductive method is simple and precise only if the underlying assumptions are valid**. More often the assumptions turn out to be based on half-truths or have no relation to reality. The conclusions drawn from such assumptions will, therefore, be misleading.

(ii) In deductive method, the premises from which inferences are drawn may not hold good at all times, and places. As such **deductive reasoning is not applicable universally**.

(iii) The deductive method is highly abstract. **It requires a great deal of care to avoid bad logic or faulty economic reasoning.**

(2) Inductive Method of Economic Analysis:

Inductive method which is also called ***empirical method*** was adopted by the "Historical School of Economists". It involves the process of reasoning from particular facts to general principle.

This method derives economic generalizations on the basis of (i) Experimentations (ii) Observations and (iii) Statistical methods.

In this method, data is collected about a certain economic phenomenon. These are systematically arranged and the general conclusions are drawn from them.

For example -

- Every child I've met at the park has been friendly. Therefore, all children at the park are friendly.
- Every time I eat cheese, I feel sick. So, I may be lactose intolerant.
- Every summer in the past 6 years, there have been record-high temperatures in my city. Thus, summers are getting hotter in my city.
- In every election I've followed, voter turnout increases when there is a hotly debated issue on the ballot. Therefore, controversial issues lead to higher voter turnout.

History

With roots in ancient Greek philosophy and significant development in the 17th century. While its

origins can be traced back to philosophers like Aristotle, figures like Francis Bacon and David Hume played crucial roles in shaping its modern understanding, both in terms of its application and the challenges associated with it.

Nature

The inductive method, also known as inductive reasoning or bottom-up reasoning, is a method of reasoning that moves from specific observations to broader generalizations and theories. It's a process of drawing conclusions based on evidence, often involving identifying patterns in data and then forming a general rule or principle that explains those patterns. This method is exploratory and can be used to develop new theories, but the conclusions reached through induction are not guaranteed to be true, only probable.

Steps of Inductive Method:

The main steps involved in the application of inductive method are:

(i) Observation.

(ii) Formation of hypothesis.

(iii) Generalization.

(iv) Verification.

Merits of Inductive Method:

(i) It is based on facts as such the method is realistic.

(ii) In order to test the economic principles, method makes statistical techniques. The inductive method is, therefore, more reliable.

(iii) Inductive method is dynamic. The changing economic phenomenon are analyzed and on the basis of collected data, conclusions and solutions are drawn from them.

(iv) Inductive method also helps in future investigations.

Demerits of Inductive Method:

The main weaknesses of this method are as under:

(i) If conclusions are drawn from insufficient data, the generalizations obtained may be faulty.

(ii) The collection of data itself is not an easy task. The sources and methods employed in the collection of data differ from investigator to investigator. The results, therefore, may differ even with the same problem.

(iii) The inductive method is time-consuming and expensive.

Conclusion:

The above analysis reveals that both the methods have weaknesses. We cannot rely exclusively on any one of them. Modern economists are of the view that both these methods are complimentary. **Alfred Marshall** has rightly remarked:

> "***Inductive and Deductive methods*** are both needed for scientific thought, as the right and left foot are both needed for walking". We can apply any of them or both as the situation demands.

Difference Between Inductive and Deductive Method:

Basis	**Deductive method**	**Inductive Method**
Origin	Belong to classical school of economics	Belong to German school of thought
Technique	Abstract Approach to solve a problem	Practical approach to solve a problem
Other names	Analytical, abstract, top down or prior method	Historical, empirical, bottom up or posterior method
Procedure	General to particular	Particular to general
Advantage and cost	Getting inferences based on few facts	Policy and law making from a set of carefully collected facts
Risk	Generalization of conclusions depends on assumptions	Conclusion based on facts may lack sufficient background of judgement
Application	Universal application	Apply to a particular place or situation
End-Result	Acceptance and rejection of hypothesis	Building a new theory
Nature	Highly structured	Researcher can make it flexible depending on its nature

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UNIT IV

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.

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

DEMAND VS 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 P_x is Rs 5/-per unit, 8 units of X if P_x is Rs 6 per unit of X if P_x is Rs 7/- per unit. Quantity demanded of commodity X refers to Rs 8/- per unit if P_x 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.

1. **Price of the Commodity**: - Effect of price on commodity even that the other determinants of demand is constant. There are two effects:
   (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.

2. **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:

(i) **Positive Effect** - 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.

(ii) **Neutral effect** - 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.

(iii) **Negative effect** - 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.

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

3. **Price of related goods:** There are two types of relation between goods.
   (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 ex: -** Bread and Butter, Pen and Ink, Tea and Sugar.
4. **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.
5. **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.
6. **Expectations:** The consumer makes two kinds of expectation:

(i) **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.

(ii) **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.

7. **Population:** Demand increases with increase in population.
8. **Government Policy:** Products with heavy taxes are demanded less while heavily subsidized products are demanded more.
9. **Others**

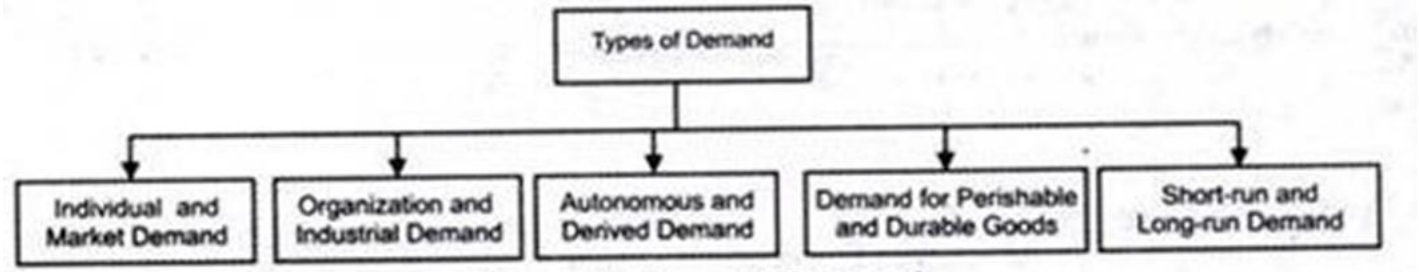


Figure-1: Types of Demand

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 directly 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**
   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 than the total demand.

6. **Short run & long run demand:**

Short run demand refers to demand with it's 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.

DEMAND SCHEDULE

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.

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

P_x (Price of Goods)	Q_x (Quantity of Goods Demanded)
1	4
2	3
3	2
4	1

Market Demand Schedule

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.

BBA 1st Year **Subject- Business Economics**

P_x (Price of Good X)	Q_x (Quantity demanded by Consumer A)	Q_y (Quantity demanded by Consumer B)	Q (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

THE LAW OF DEMAND

The law of demand states that other things being constant, there is an inverse or indirect relationship between quantities demanded and own price of the commodity. With increase in price of a good, quantity demanded of those good decreases keeping other factors, like income, taste, price of related good, taxes etc. constant.

Demand Schedule -

P_x (Price of good X in Rs)	Q_x (Quantity demanded of Good X in Units)
10	100
9	150
8	200

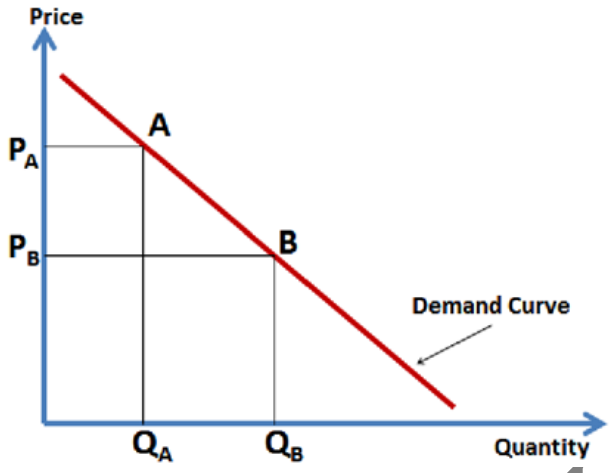
Demand Curve -

Take Price on Y axis and Quantity on X axis.

Demand Curve is downward sloping to right and can be linear or non- linear. This shows that as Price decreases from P_A to P_B, quantity demanded increases from Q_A to Q_B.

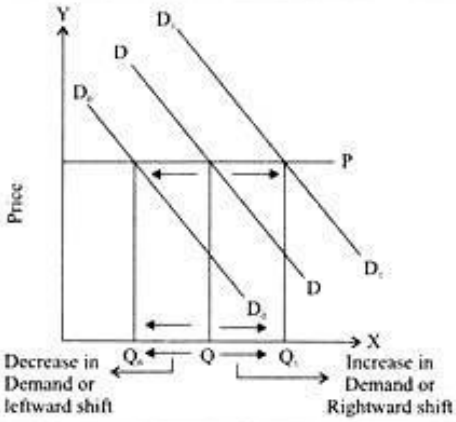
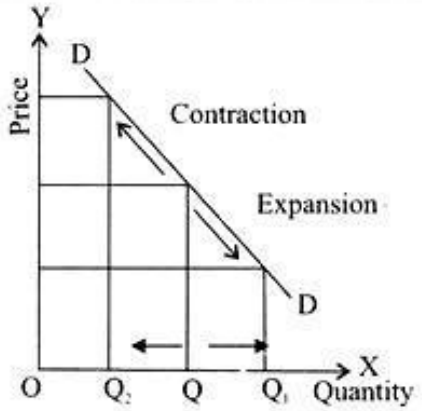
Change or fall in Price = P_AP_B

Change or rise in Quantity = Q_AQ_B



The demand for a chocolate would decrease if the price of that chocolate increases. Consumers might not attach as much value to purchasing a chocolate as the price goes up. They can also turn to substitute goods such as cheaper chocolates or toffees. Here, we assume that the income of consumer and price of related goods are constant.

CHANGE IN DEMAND VS CHANGE IN QUANTITY DEMANDED -

Basis	Change in Demand (Shift of demand curve)	Change in Quantity Demanded (Movement along the demand curves)
1. Factors responsible for rise or fall	It is increase or decrease in demand of a commodity due to the factors other than price of the commodity.	It is increase or decrease in quantity demanded due to price of the commodity while keeping other factors constant.
2. Price effect	No price effect i.e., At the same price demand is more	Price effect is negative i.e., At a lower price demand is more.
3. Shift of Demand curve	No price effect i.e., In case of increase in demand, demand curve shifts to the right and in case of decrease in demand, demand curve shift to the left.	Demand curve remains the same. However, in case of increase in quantity demanded there is a downward movement and in case of decrease in quantity demanded there is upward movement.
4. Diagram		
5. Demand Schedule	Price 10 10 10 / Quantity demanded 100 50 200	Price 10 15 20 / Quantity demanded 120 100 80

EXCEPTIONS TO THE LAW OF DEMAND

The law of demand generally states that as prices increase, demand decreases, and vice versa. However, there are exceptions where this relationship doesn't hold true. These exceptions involve situations where demand increases despite a price increase, or decreases despite a price decrease.

Here are some key exceptions to the law of demand:

1. **Giffen Goods:** These are inferior goods where demand increases as the price increases and decreases as the price decreases. This is because the income effect (the change in consumption due to a change in purchasing power) dominates the substitution effect (the change in consumption due to a price change relative to other goods). Examples include basic staples like bread, where a price increase might force low-income individuals to cut back on more expensive foods and consume more bread, even at a higher price.

2. **Veblen Goods**: Also known as "prestige goods," these are luxury items where demand is higher at higher prices because they signify status and exclusivity. Examples include high-end jewellery or designer clothing.

3. **Speculative Demand**: When consumers expect future price increases, they may purchase more of a good now, even if the price is already high, in order to avoid paying even more later.

4. **Consumer Ignorance**: In some cases, consumers might mistakenly believe that a higher price indicates higher quality, leading them to buy more of a product as its price increases.

5. **Necessities and Essential Goods**: For necessities like medicines or basic food items, demand may remain relatively constant despite price fluctuations because consumers need them regardless of the price.

6. **Emergencies and Shortages:** During emergencies or situations where shortages are anticipated, consumers may buy more of a product, even at a higher price, to prepare for the situation.

7. **Changes in Fashion and Tastes:** Shifting consumer preferences or trends can also cause demand to deviate from the law of demand.

These exceptions highlight the complexities of consumer behavior and demonstrate that the relationship between price and demand is not always straightforward.

change relatively less Change changes in demand, elasticity is unitary and elastic demand respectively. When there is very great change, demand is perfectly elastic.

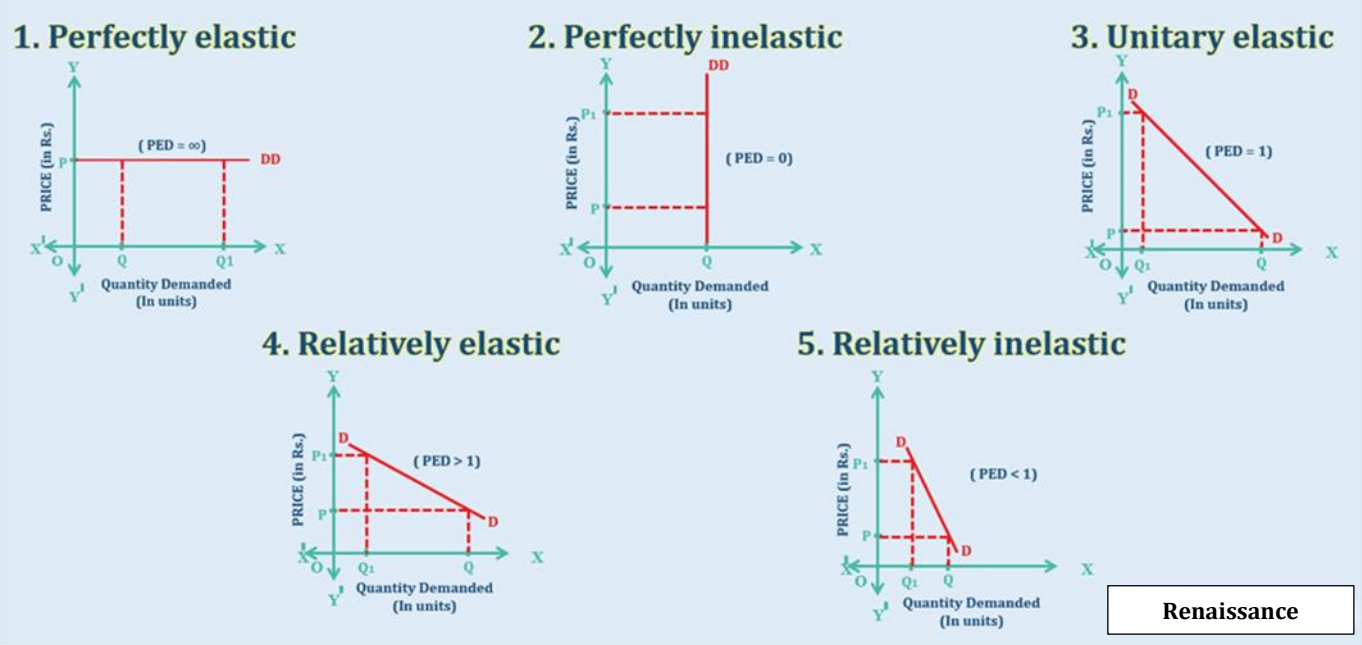
MEASUREMENT OF PRICE ELASTICITY OF DEMAND

Demand measurement primarily focuses on quantifying the amount of a product or service that consumers are willing and able to purchase at various price points and time periods. This involves calculating the price elasticity of demand, which indicates how responsive quantity demanded is to price changes, as well as understanding market demand, which sums up individual demands.

Price Elasticity of Demand

The percentage change in the demand for a commodity because of the percentage change in its price is known as the **Price Elasticity of Demand**. It is the degree of responsiveness of demand for a commodity with reference to changes in the price of such commodity. **For example,** +1.5 price elasticity of demand means that if there is a one percent rise in the price of a commodity, it will lead to a 1.5 percent fall in its demand, or a one percent fall in the price will lead to 1.5 percent rise in the demand. Price is the most important determinant of demand; therefore, price elasticity of demand is also known as **Elasticity of Demand, Demand Elasticity,** or **Elasticity.**

Degrees or types of Price Elasticity of Demand



Numerical Value	*Terminology*	*Description*	*Shape of the Demand curve*
$e_p = \infty$	Perfectly elastic	Change in demand is infinite at a given price	Horizontal
$e_p = 0$	Perfectly inelastic	Demand remains unchanged whatever be the change in price	Vertical
$e_p = 1$	Unitary elastic	$\%\Delta Q = \%\Delta P$	Rectangular Hyperbola
$0 < e_p < 1$	Inelastic	$\%\Delta Q < \%\Delta P$	Steeper
$\infty > e_p > 1$	Elastic	$\%\Delta Q > \%\Delta P$	Flatter

Factors Affecting Price Elasticity of Demand

The factors that affect the price elasticity of demand and determine which type of elasticity the product would have, include the following –

- The need of the product
- Substitutes available
- Increase or decrease in the consumer's income
- The time period over which the elasticity is being measured
- The perishability of the product
- Addiction of consumers

Methods of Measurement:

1. **Elasticity of Demand (E_d)=** $\frac{\textbf{Percentage change in Price}}{\textbf{Percentage change in Quantity demanded}}$

   Where,

   Percentage change in Quantity demanded = $\frac{\text{Change in Quantity } (\Delta Q)}{\text{Initial Quantity } (Q)} \times 100$

   Percentage change in Price = $\frac{\text{Change in Price } (\Delta P)}{\text{Original Price } (P)} \times 100$

   Change in Quantity (ΔQ) = $Q_1 - Q$
   Change in Price (ΔP) = $P_1 - P$
   P_1 = New Price
   Q_1 = New Quantity demanded

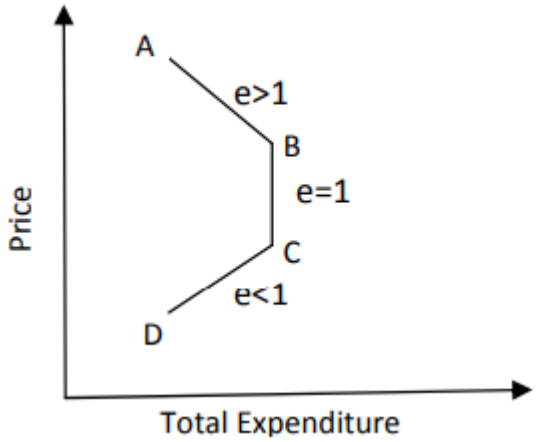
2. **Total Expenditure Method:** Examines the relationship between price changes and total expenditure on a product.

Dr. Marshall has evolved the total expenditure method to measure the price elasticity of demand. According to this method, elasticity of demand can be measured by considering the change in price and the subsequent change in the total quantity of goods purchased and the total amount of money spend on it.

Total Outlay = Price x Quantity Demanded.

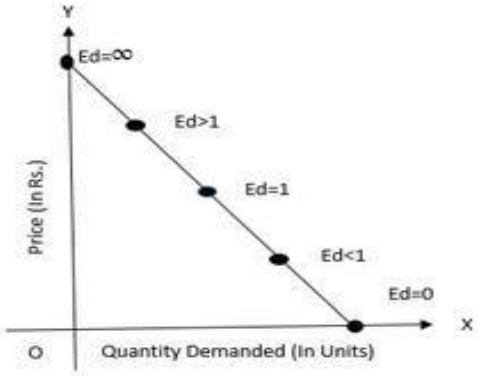
There are three possibilities:

i. If with a fall in price (demand increases) the total expenditure increases or with a rise in price (demand falls) the total expenditure falls, in that case the elasticity of demand is greater than one i.e. ($E_p > 1$)
ii. If with a rise or fall in the price (demand falls or rises respectively), the total expenditure remains the same, the demand will be unitary elastic i.e. ($E_p = 1$).
iii. With a fall in price (Demand rises), the total expenditure also falls, and with a rise in price (Demand falls) the total expenditure also rises, the demand is said to be less elastic or elasticity of demand is less than one ($E_p < 1$)



3. **Point Elasticity Method:** Measures elasticity at a specific point on the demand curve.

Elasticity of Demand = $\frac{\text{Upper Segment of Demand Curve}}{\text{Lower Segment of Demand Curve}}$



Factors Affecting Price Elasticity of Demand

1) **Availability of Close Substitutes -** A good having close substitutes will have an elastic demand and a good with no close substitutes will have an inelastic demand. Example: commodities such as pen, cold drink, car etc. have close substitutes. When the price of these goods rises, the price of their substitutes remaining constant, there is proportionately greater fall in the quantity demanded of these goods. That is, their demand is elastic. Commodities such as prescribed medicines, salt have no close substitutes and hence have an inelastic demand.

2) **Income of the Consumers** - If the income of the consumers is high, the elasticity of demand is less. It is because change in the price will not affect the quantity demanded in a greater proportion. But in low-income groups, the elasticity of demand is high.

3) **Luxuries versus Necessities** - The price elasticity of demand is likely to be low for necessities and high for luxuries. A necessity is a good or service that the consumer must have such as food and medicines. Luxuries are goods that are enjoyable but not essential. Example eating in a 5-Star hotel, if the price of necessities rise, the demand will not fall by a greater proportion because their purchase cannot be delayed. That is why; the price elasticity of demand in case of necessity is low.

4) **Number of Uses of the Commodity** - The more the number the number of uses of the commodity can be put to, the more elastic is the demand. If the commodity has few uses it has inelastic demand. Example: goods like milk and electricity can be put to many uses and hence, enjoy elastic demand, i.e., when prices are low, demand increases by a greater proportion as the goods can now be put to less important uses also.

5) **Proportion of Total Expenditure Spent on the Product** - Higher the cost of the good relative to total income of the consumer, more will be the price elasticity of demand. If the price of bread, ink, salt, match box, etc., which is relatively low, doubles it would have almost no effect on the quantity demanded on them. On the other hand, if price of car doubles, then the quantity demanded will fall by a greater proportion showing high price elasticity of demand.

6) **Time Period** - If the time period needed to find substitutes of the commodity is more, the price elasticity of demand is more and vice versa. Example: flying by aeroplane has inelastic demand as no substitutes are available in the short run.

DEMAND FORECASTING

Demand forecasting is an amalgamation of two words; the first one is known as demand, and another one is forecasting. The meaning of demand is the outside requirements of a manufactured product or a useful service. In general aspects, forecasting usually means making an approximation in the present for an event that would be occurring in the future.

All the companies use these predictions to format their approach to marketing and sales. It contributes hugely towards increasing their profit margins. Here, we are stepping forward to elaborate on demand forecasting, its features and its usefulness. Moreover, we will also see its applications.

Definition of Demand Forecasting

Demand forecasting is a technique that is used for the estimation of what can be the demand for the upcoming product or services in the future. It is based upon the real-time analysis of demand which was there in the past for that particular product or service in the market present today. Demand forecasting must be done by a scientific approach and facts, events which are related to the forecasting must be considered.

This whole concept of analyzing and approximations are collectively called demand forecasting. In order to understand it more clearly, we can consider the following equation so that we can understand the concept of demand forecasting more easily.

For example, if we sold 100,150, 200 units of product Z in January, February, and March respectively, now we can approximately say that there will be a demand for 150 units of product Z in April. However, there is also a clause that the condition of the market should remain the same.

Methods of Demand Forecasting

There are two main methods of demand forecasting: 1) Based on Economy and 2) Based on the period.

1. Based on Economy

There is a total of three methods of demand forecasting based on the economy:

- **Macro-level Forecasting**: It generally deals with the economic environment which is related to the economy as calculated by the Index of Industrial Production (IIP), national income and general level of employment, etc.
- **Industry-level Forecasting**: Industry-level forecasting usually deals with the demand issued for the industry's products as a whole. We can consider the example where there is a demand for cement in India, Demand for clothes in India, etc.

- **Firm-level Forecasting**: It is a major type of demand forecasting. Firm-level forecasting means that we need to forecast the demand for a specific firm's product. We can consider the following examples as Demand for Birla cement, Demand for Raymond clothes, etc.

2. Based on the Time

Forecasting based on time may be either short-term forecasting or long-term forecasting.

- **Short-term Forecasting**: It generally covers a short period which depends upon the nature of the industry. It is done generally for six months or can be less than one year. Short-term forecasting is apt for making tactical decisions.
- **Long-term Forecasting**: Long-term forecasts are generally for a longer period. It can be from two to five years or more. It gives data for major strategic decisions of the company. We can consider the example of the expansion of plant capacity or on opening a new unit of business, etc.

Steps Used in Demand Forecasting

The process of demand forecasting can be divided into five simple steps:

- **Setting an Objective**: The first step involves clearly deciding on the purpose of the analysis. That is, the manufacturers define their goals that are achievable through the analysis and compatible with their needs.
- **Determining the Time Period**: In this step, the manufacturer decides whether the analysis will be carried out for a short or long duration of time. Many forecasts run for a long duration as they offer more and consistent data.
- **Selecting a Demand Forecasting Method**: In the next step, the manufacturer decides along with the analysts which method will give the best results.
- **Collection of Data**: In the penultimate step, the data is collected according to the preconceived attributes for the analysis.
- **Evaluation of Data**: In the last step, the collected data is evaluated to obtain conclusions for the forecast.

UNIT V

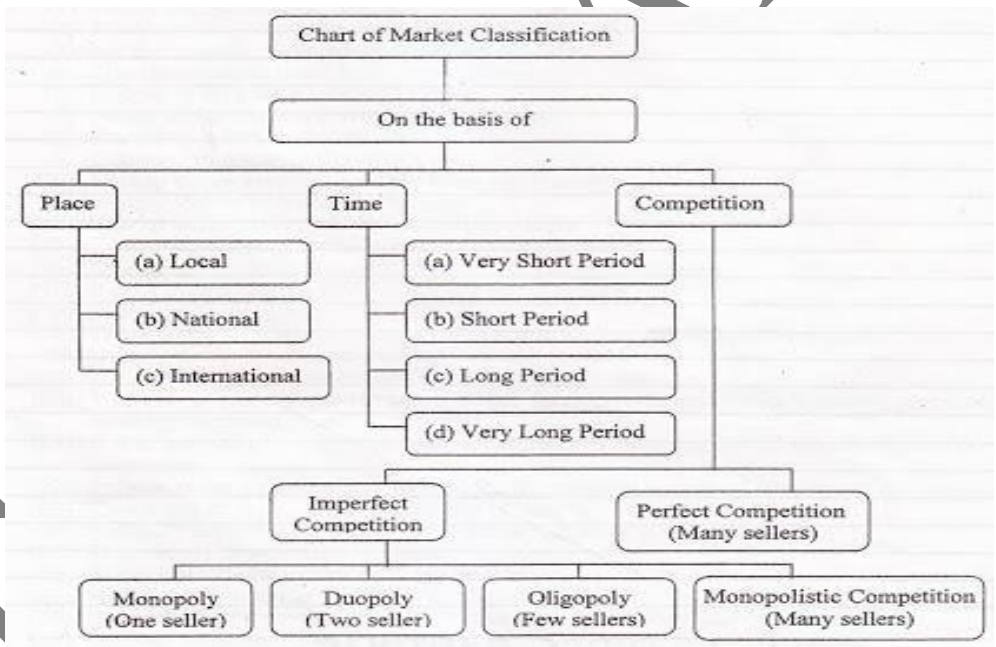
MARKET

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 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



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 seller.

PERFECT COMPETITION

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. Perfect Competition is a market structure where there is a perfect degree of competition and single price prevails. The concept of Perfect Competition was introduced by Dr. Alfred Marshall. 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

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.

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 is 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 :-

- A single seller has complete control over the supply of the commodity.
- There are no close substitutes for the product.
- There is no free entry and exit because of some restrictions.
- There is a complete negation of competition.
- Monopolist is a price maker.
- Since there is a single firm, the firm and industry are one and same i.e. firm coincides the industry.
- 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.
- No advertisement cost

Classification / Kinds / Types of Monopoly

- **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.
- **Imperfect Monopoly** - It is also called as relative monopoly 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).
- **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.
- **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.
- **Simple Monopoly -** Simple monopoly firm charges a uniform price or single price to all the customers. He operates in a single market.
- **Discriminating Monopoly** - Such a monopoly firm charges different price to different customers for the same product. It prevails in more than one market.
- **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.
- **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.
- **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.
- **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

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. 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

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 refers to a market situation in which there are a few firms selling homogeneous or differentiated products. Oligopoly lies in between monopolistic competition and monopoly.
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 behavior 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

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 incase of duopoly. Examples are: Pepsi and Coca-Cola soft drinks.
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.

Price Determination under Perfect Competition

1. In perfect 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 maximizing his satisfaction by purchasing more at lower price and lower at higher price. This is called demand behavior 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 behavior 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

Equilibrium condition of the industry: It is the point at which total demand is exactly equal to total supply.

Equilibrium Price: It is the price (30) at which equilibrium demand (300) is exactly equal to equilibrium supply (300).

Equilibrium Quantity: It is the quantity (300) at which demand is exactly equal to supply.

Graphically, **Equilibrium** is the point **E_1** where downward sloping demand curve (D) and upward sloping supply curve (S) intersect each other. Equilibrium Price (P_1) is determined on Y axis and Equilibrium quantity (Q_1) is decided at X axis.

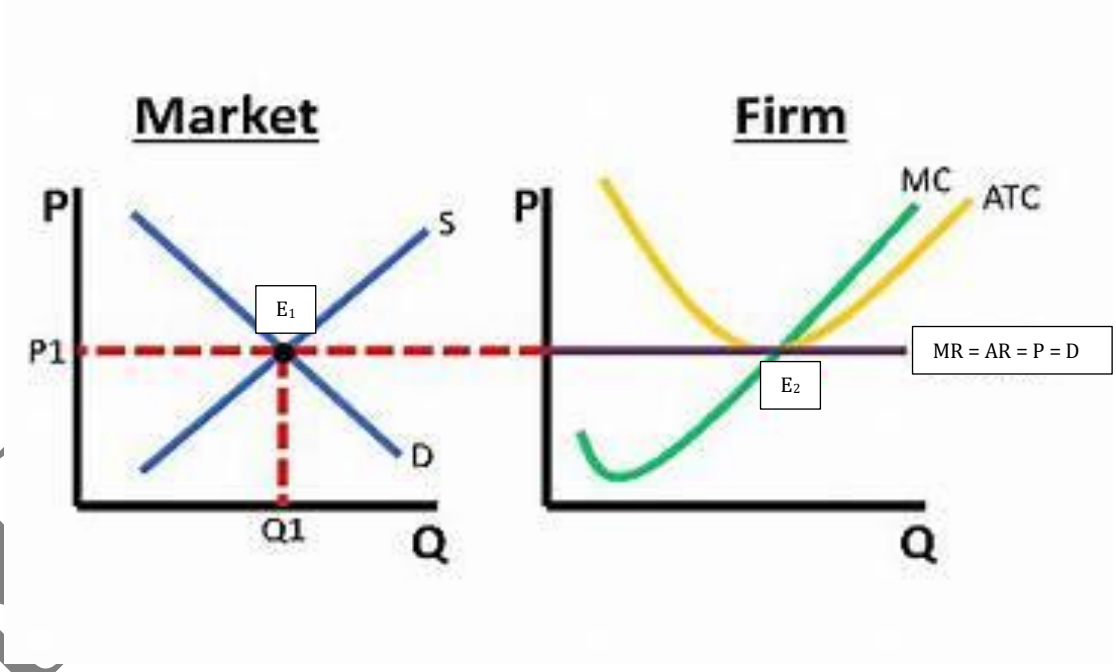
Equilibrium condition of the FIRM (E_2):

1. **MR = MC (Marginal Revenue = Marginal cost)**
2. **MC must cut MR from below.**

Demand curve of Firm = Horizontal (Fixed at Price Line)

Supply curve of Firm = Marginal Cost curve above its minimum point.

Firm can decide only quantity while Price is already decided 30 Rs by the industry.



Above graph explains equilibrium under perfectly competitive industry and firm. This is **zero profit or no loss no profit or break-even** condition which exists in long run.

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.

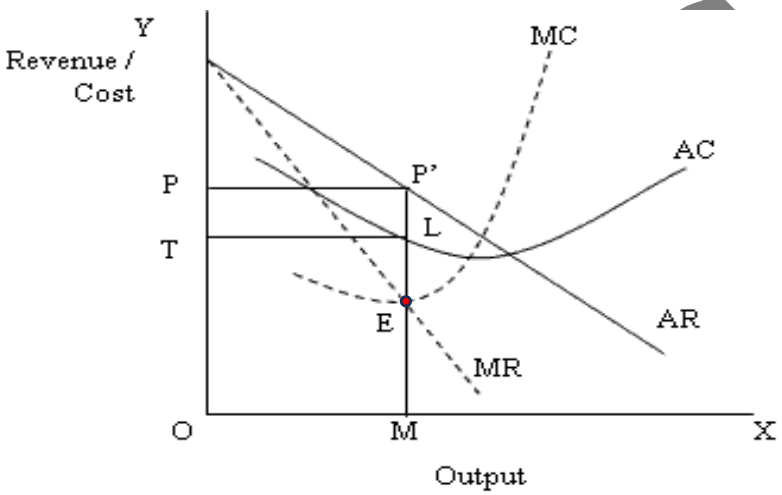
2. From this definition there are two points that must be noted:

(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.



Equilibrium condition of the Monopolist (E):

1. MR = MC (Marginal Revenue = Marginal cost)
2. MC must cut MR from below.

Demand curve = Downward sloping AR Line

Supply curve of Firm = Marginal Cost curve above its minimum point.

Equilibrium Price: OP determined at Y axis from equilibrium point and demand curve.

Equilibrium Quantity: OM determined at X axis from equilibrium point and supply curve.

Total Revenue = Price x Quantity = OPP'M

Total Cost = Average Cost x Quantity = MLTO

Profit = Total Revenue – Total Cost = PP'LT

4. 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

Equilibrium condition under Monopolistic Competition (E):

1. MR = MC (Marginal Revenue = Marginal cost)
2. MC must cut MR from below.

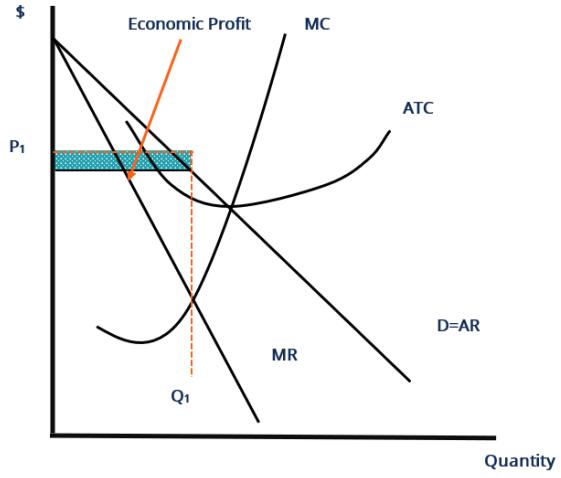
Demand curve = Downward sloping AR Line

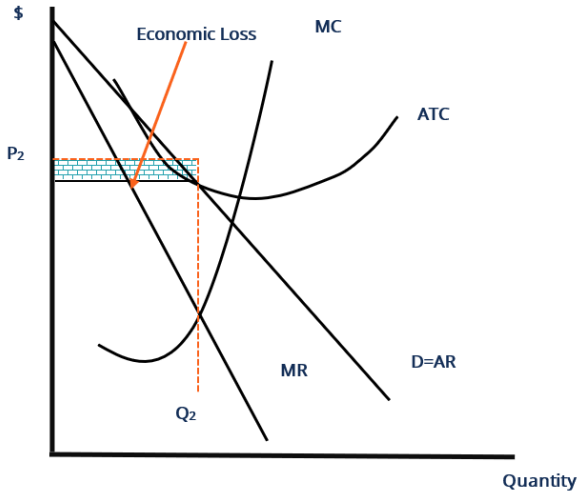
Supply curve of Firm = Marginal Cost curve above its minimum point.

Equilibrium Price: OP determined at Y axis from equilibrium point and demand curve.

Equilibrium Quantity: OQ determined at X axis from equilibrium point and supply curve.

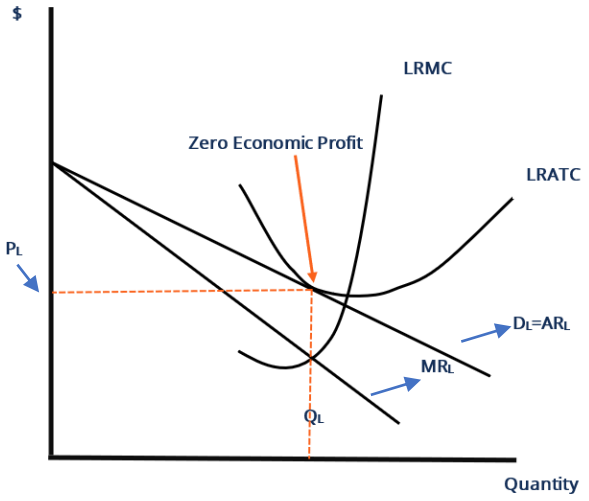
In the short run, a monopolistically competitive firm may either realize abnormal profits or be faced with losses.





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.



Equilibrium condition of the Monopolist (E):

1. MR = MC (Marginal Revenue = Marginal cost)
2. MC must cut MR from below.

Demand curve = Downward sloping $AR_L = D_L$Line

Supply curve of Firm = Marginal Cost curve above its minimum point.

Equilibrium Price: P_L determined at Y axis from equilibrium point and demand curve.

Equilibrium Quantity: Q_L determined at X axis from equilibrium point and supply curve.

Total Revenue = Total Cost because Price = Average cost

Profit = Total Revenue – Total Cost = Zero