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.

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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.

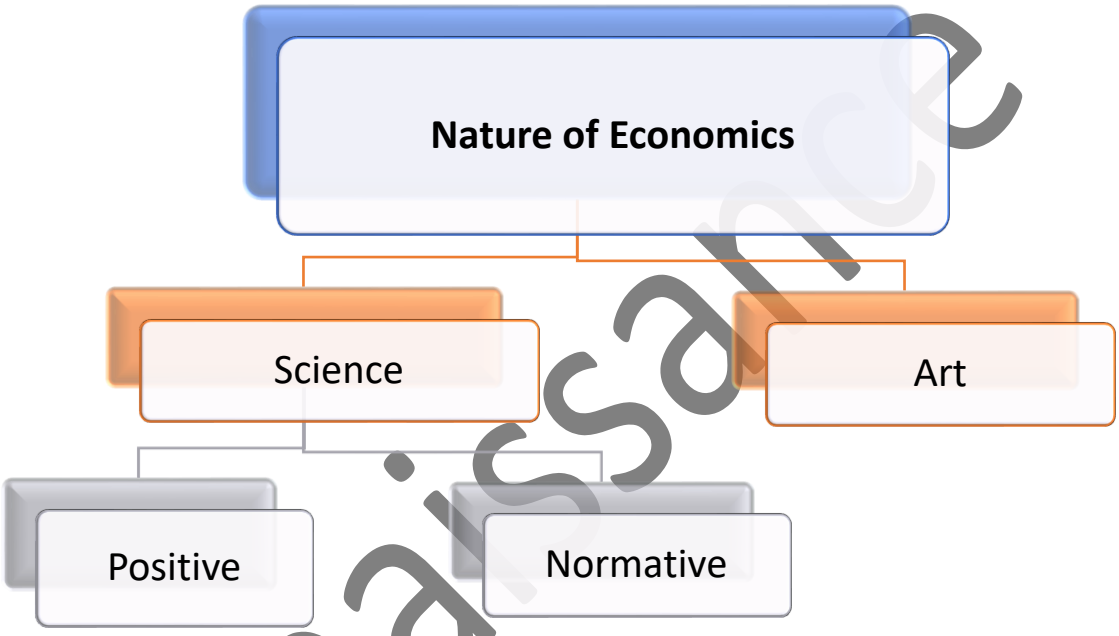
Many economists like Stigler, Samuelson, Macifie, Oscar Lange, Sciovosky, have given definition of economics –

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

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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.

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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**

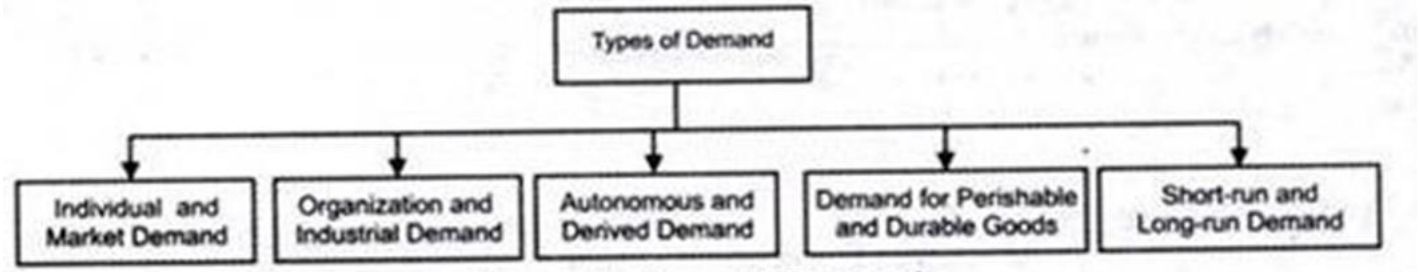


Figure-1: Types of Demand

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.

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

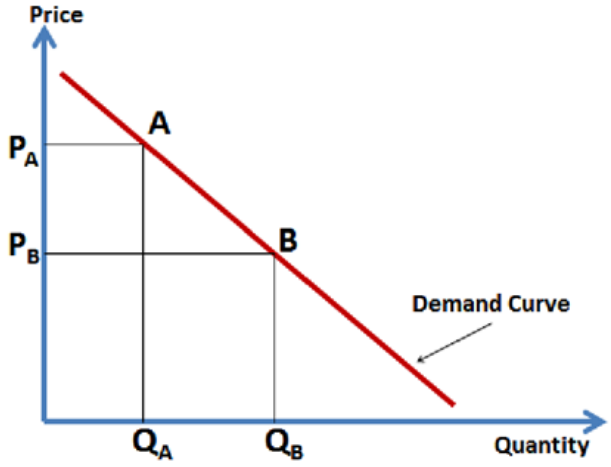
Demand Curve -

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.

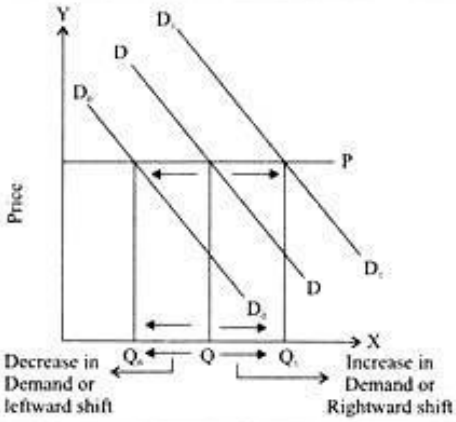
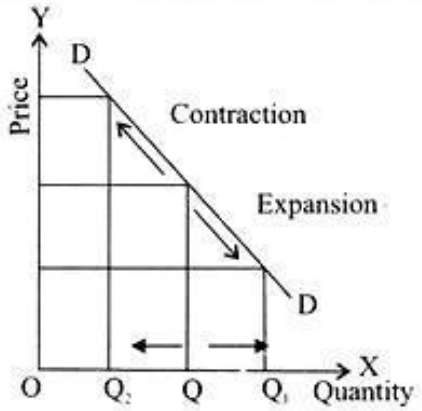
Change or fall in Price = P_AP_B

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.

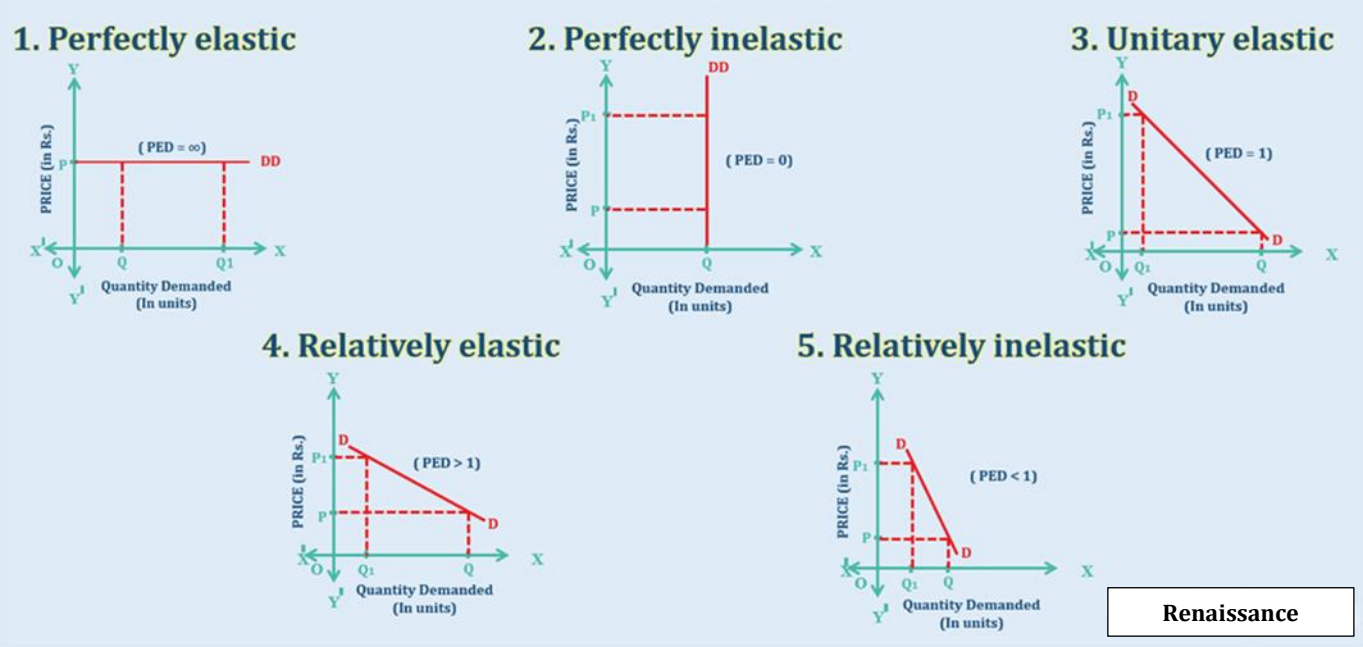
MEASUREMENT OF PRICE ELASTICITY OF DEMAND

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)=** $\frac{\text{Percentage change in Price}}{\text{Percentage change in Quantity demanded}}$

   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

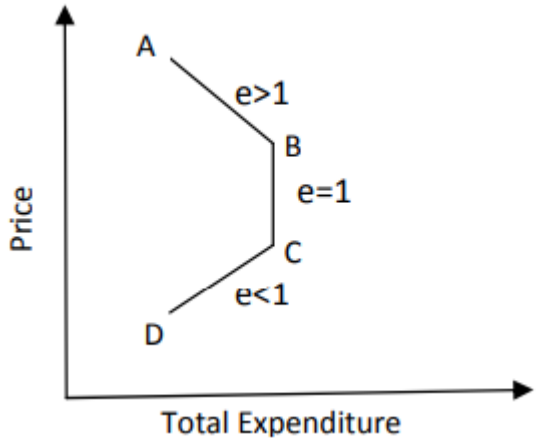
2. **Total Expenditure Method:** Examines the relationship between price changes and total expenditure on a product.

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.

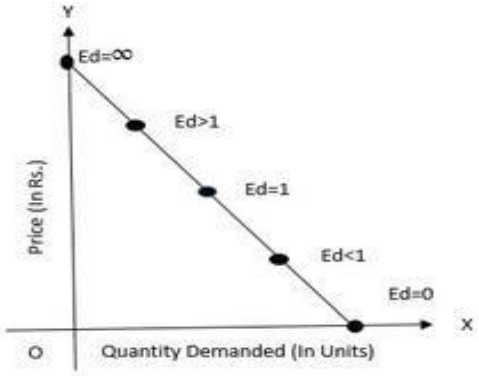
There are three possibilities:

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.