Subject

Economics of IT Industry

Unit I

CO1: The learners will be able to disatinguish between micro and macro economics

Topics Covered

- Difference between micro and macroeconomics
- Law of Demand
- Law of Supply
- Concept and types of elasticity of demand
- Deflation
- Recession

Microeconomics

Microeconomics focuses on the choices made by individual consumers as well as businesses concerning the fluctuating cost of goods and services in an economy. It covers aspects, such as

- Supply and demand for goods in different market places.
- Consumer behaviour, as an individual or as a group.
- Demand for service and labour, including individual labour markets, demand, and determinants like the wage of an employee.

Different Components of Microeconomics:

It includes

- Market demand and supply (For example Textile)
- Consumer Behavior (for example Consumer Choice Theory)
- Producers are driven by individual preferences.
- Market-specific labor markets

Macroeconomics

Macroeconomics studies the economic progress and steps taken by a nation. It also includes the study of policies and other influencing factors that affect the economy as a whole.

Macroeconomics follows a top-down approach, and involves strategies like –

- The overall economic growth of a country.
- Reasons that are likely to influence unemployment and inflation.
- Fiscal policies are likely to influence factors like interest rates.
- Effect of globalization and international trade.
- Reasons that affect varying economic growths among countries.

Different Components of Macroeconomics:

It includes - National Output, Unemployment, Inflation

Difference betweem Mircoeconomics and Macroeconomics

	Microeconomics	Macroeconomics
Economic Unit	It is the study of individual economic units of an economy.	It is the study of economy as a whole and its aggregates.
Scope	It deals with individual income, individual prices and individual output.	It deals with aggregates like national income, general price level and national output.
Known as	Price theory	Income and Employment theory

Main tools	Its main tools are demand and supply of particular commodity factor.	Its main tools are aggregate demand and aggregate supply of economy as a whole.
Use	It helps to solve the central problem of what, how and for whom to produce in the economy.	It helps to solve the central problem of full employment of resources in the economy.
Determinants	Price is the main determinant of microeconomic problems.	Employment is the main determinants of macroeconomic problems.
Limitations	It is based on unrealistic assumption i.e In microeconomics it is assumed that there is a full employment in the society which is not at all possible.	It has been analyzed that fallacy of composition involves, which sometimes dosen't proves true because it is possible that what is truw for aggregate may not be true for individual too.
Approach	While analyzing any economy microecnomics take bottom up approach.	While analyzing any economy macroecnomics take bottom up approach.

Definition of Demand

Demand is the quantity of consumers who are willing and able to buy products at various prices during a given period of time. Demand for any commodity implies the consumers' desire to acquire the good, the willingness and ability to pay for it.

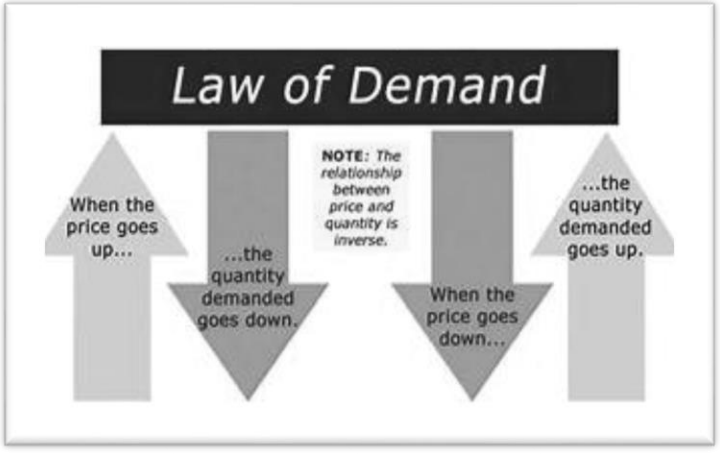
Example : Bill gates is able to purchase a Ferrari, but he is not willing to pay for it or not willing to buy.

Consumer creates demand. Demand basically depends on the utility of the product. There is direct relation between them. i.e., higher the utility, higher would be demand and lower the utility, lower would be the demand.

Law of Demand

The law of demand is a fundamental principle in economics that describes the relationship between the price of a good or service and the quantity demanded by consumers.

Law of demand states that, when the price of the product decreases, the quantity demanded increases and conversely, when the price of a product increases, the quantity demanded decreases.

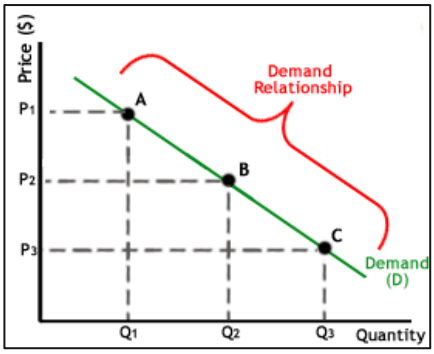


In law of demand, price is inversely proportional to demand.

In simpler terms, people generally buy more of a product when its price is lower, and they buy less of it when its price is higher. This relationship is often represented graphically as a downward-sloping demand curve on a supply and demand graph.

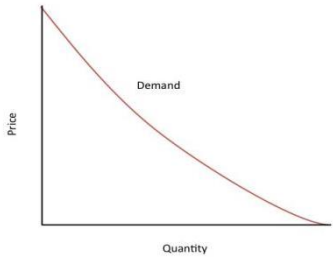
Examples of Law of Demand

When plane tickets become more expensive, you're less likely to travel by air and more likely to choose the less expensive options of driving or staying home. The amount of plane tickets that you demand decreases to zero because the cost has gone up.



The chart depicts the law of demand using a demand curve, which is always downward sloping. Each point on the curve (A, B, C) reflects a direct correlation between quantity demanded (Q) and price (P). So, at point A, the quantity demanded will be Q1 and the price will be P1, and so on.

Demand Curve: The demand curve is a graphical representation of the relationship between the price of a good or service and the quantity demanded for a given period of time. In a typical representation, the price will appear on the left vertical axis, the quantity demanded on the horizontal axis. Note that this formulation implies that price is the independent variable, and quantity the dependent variable.



The demand curve will move downward from the left to the right, which expresses the law of demand: as the price of a given commodity increases, the quantity demanded decreases, all else being equal.

Assumption of Law of Demand

1) There is no expectation of the consIncome of the consumer is constant.
2) There is no change in availability and price of the related commodities. (complementary and substitutes)
3) umers about changes in the future price and income.
4) Consumer taste and preference remain the same.
5) There is no change in the population and its structure.

Important features of law of demand

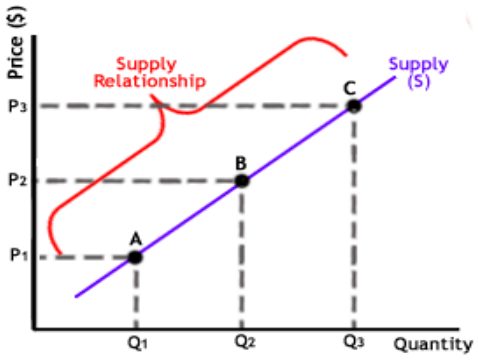
1) There is an inverse relationship between price and quantity demanded.
2) Price is an independent variable and demand is a dependent variable.
3) It is only a qualitative statement and as such it does not indicate quantitative changes in price and demand.
4) Generally, the demand curve slopes downwards from left to right.

Law of Supply

Law of Supply states that the direct relationship between price and quantity supplied, keeping the other factors constant.

"All else being equal, as the price of a good or service increases, the quantity supplied by producers will also increase, and as the price decreases, the quantity supplied will decrease."
In other words, there is a direct positive relationship between the price of a product and the quantity that producers are willing to supply. This relationship is typically depicted on a graph as an upward-sloping supply curve, where the quantity supplied increases as the price increases.

The given chart depicts the law of supply using a supply curve, which is upward sloping. A, B, and C is points on the supply curve. Each point on the curve reflects a direct correlation between quantity supplied (Q) and price (P). So, at point A, the quantity supplied will be Q1 and the price will be P1, and so on.



The supply curve is upward sloping because, over time, suppliers can choose how much of their goods to produce and later bring to market. At any given point in time, however, the supply that sellers bring to market is fixed, and sellers simply face a decision to either sell or withhold their stock from a sale; consumer demand sets the price, and sellers can only charge what the market will bear.

If consumer demand rises over time, the price will rise, and suppliers can choose to devote new resources to production (or new suppliers can enter the market), which increases the quantity supplied. Demand ultimately sets the price in a competitive market; supplier response to the price they can expect to receive sets the quantity supplied.

The law of supply is one of the most fundamental concepts in economics. It works with the law of demand to explain how market economies allocate resources and determine the prices of goods and services.

Assumption of law of supply

1) Price related goods remain constant.
2) There is no change in state of technology.
3) Production is constant.
4) There is no change in Taxation Policy.
5) There is no change in Government Policy.
6) The goals of producer is same to get Profit Maximization

Elasticity of Demand

The elasticity of demand refers to the degree to which demand responds to a change in an economic factor. Price is the most common economic factor used when determining elasticity.

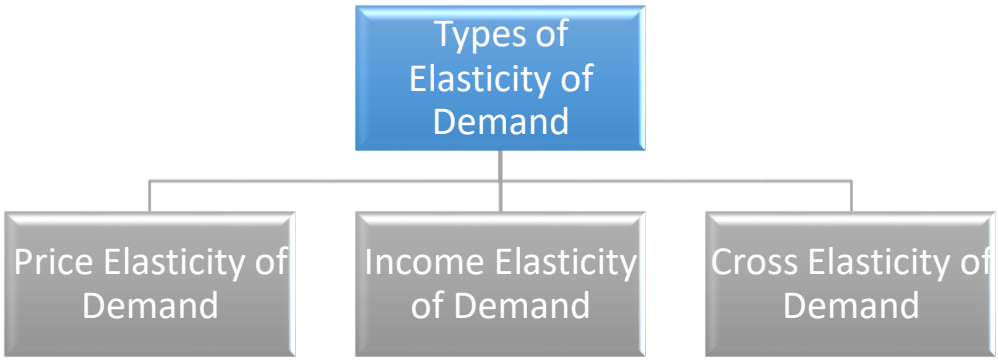
Other factors include income level and substitute availability. Elasticity measures how demand shifts when economic factors change. When demand remains constant regardless of price changes, it is called inelasticity.

The elasticity of demand refers to the change in demand when there is a change in another economic factor, such as price or income.

Demand is considered inelastic if demand for a good or service remains unchanged even when the price changes,

Elastic goods include luxury items and certain food and beverages as changes in their prices affect demand.

Inelastic goods may include items such as tobacco and prescription drugs as demand often remains constant despite price changes.



Price Elasticity of Demand

Any change in the price of a commodity, whether it's a decrease or increase, affects the quantity demanded for a product. For example, when there is a rise in the prices of ceiling fans, the quantity demanded goes down. This measure of responsiveness of quantity demanded when there is a change in price is termed as the Price Elasticity of Demand (PED). The mathematical formula given to calculate the Price Elasticity of Demand is:

PED = % Change in Quantity Demanded % / Change in Price

The result obtained from this formula determines the intensity of the effect of price change on the quantity demanded for a commodity.

Income Elasticity of Demand

The income levels of consumers play an important role in the quantity demanded for a product. This can be understood by looking at the difference in goods sold in the rural markets versus the goods sold in metro cities. The Income Elasticity of Demand, also represented by YED, refers to the sensitivity of quantity demanded for a certain good to a change in real income (the

income earned by an individual after accounting for inflation) of the consumers who buy this good, keeping all other things constant.

The formula given to calculate the Income Elasticity of Demand is given as:

YED = *% Change in Quantity Demanded% / Change in Income*

The result obtained from this formula helps to determine whether a good is a necessity good or a luxury good.

Cross Elasticity of Demand

In a market where there is an oligopoly, multiple players compete. Thus, the quantity demanded for a product does not only depend on itself but rather, there is an effect even when prices of other goods change. Cross Elasticity of Demand, also represented as XED, is an economic concept that measures the sensitiveness of quantity demanded of one good (X) when there is a change in the price of another good (Y), and that's why it is also referred to as Cross-Price Elasticity of Demand.

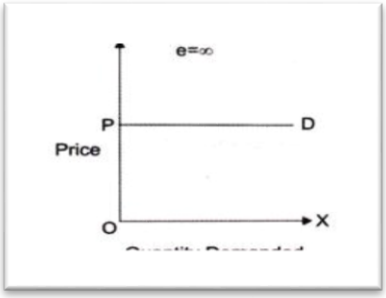
The formula given to calculate the Cross Elasticity of Demand is given as:

XED = *(% Change in Quantity Demanded for one good (X)%) / (Change in Price of another Good (Y))*

The result obtained for a substitute good would always come out to be positive as whenever there is a rise in the price of a good, the demand for its substitute rises. Whereas, the result will be negative for a complementary good. These three types of Elasticity of Demand measure the sensitivity of quantity demanded to a change in the price of the good, income of consumers buying the good, and the price of another good.

Five cases of Elasticity of Demand:

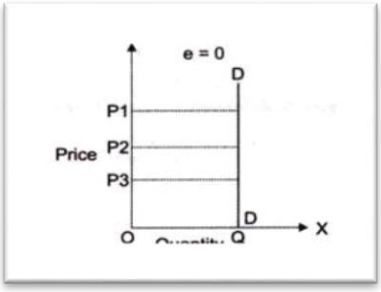
1. Perfectly Elastic Demand:



When a small change in price of a product causes a major change in its demand, it is said to be perfectly elastic demand. In perfectly elastic demand, a small rise in price results in fall in demand to zero, while a small fall in price causes increase in demand to infinity. In such a case, the demand is perfectly elastic or $e_p = \infty$

In perfectly elastic demand, the demand curve is represented as a horizontal straight line

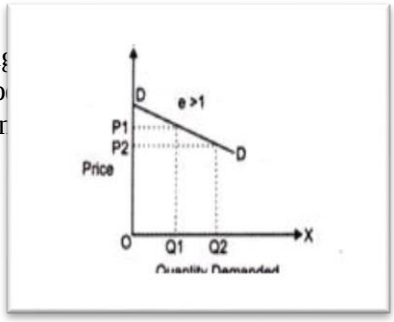
2. Perfectly Inelastic Demand:



A perfectly inelastic demand is one when there is no change produced in the demand of a product with change in its price. The numerical value for perfectly inelastic demand is zero (e_p=0).

In case of perfectly inelastic demand, demand curve is represented as a straight vertical line.

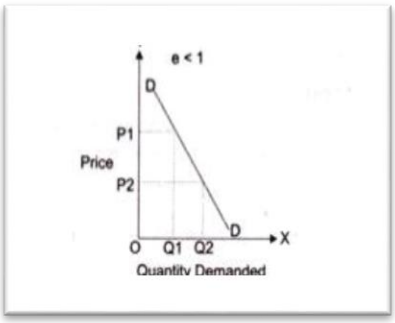
3. Relatively Elastic Demand:



Relatively elastic demand refers to the demand when the proportionate chang
produced in demand is greater than the proportionate change in price of a pro
The numerical value of relatively elastic demand ranges between one to infir

The demand curve of relatively elastic demand is gradually sloping.

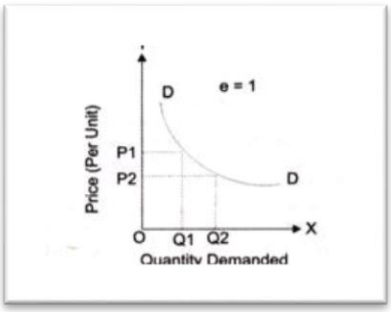
4. Relatively Inelastic Demand:



Relatively inelastic demand is one when the percentage change produced in demand is less than the percentage change in the price of a product. For example, if the price of a product increases by 30% and the demand for the product decreases only by 10%, then the demand would be called relatively inelastic. The numerical value of relatively elastic demand ranges between zero to one (e_p<1). Marshall has termed relatively inelastic demand as elasticity being less than unity.

The demand curve of relatively inelastic demand is rapidly sloping.

5. Unitary Elastic Demand:



When the proportionate change in demand produces the same change in the price of the product, the demand is referred as unitary elastic demand. The numerical value for unitary elastic demand is equal to one (e_p=1).

The demand curve for unitary elastic demand is represented as a rectangular hyperbola.

Deflation

1. Deflation is the general decline of the price level of goods and services.
2. Deflation is usually associated with a contraction in the supply of money and credit, but prices can also fall due to increased productivity and technological improvements.
3. Whether the economy, price level, and money supply are deflating or inflating changes the appeal of different investment options.
4. Deflation causes the nominal costs of capital, labor, goods, and services to fall, though their relative prices may be unchanged.
5. Deflation has been a popular concern among economists for decades. On its face, deflation benefits consumers because they can purchase more goods and services with the same nominal income over time.
6. However, not everyone wins from lower prices and economists are often concerned about the consequences of falling prices on various sectors of the economy, especially in financial matters.

7. In particular, deflation can harm borrowers, who can be bound to pay their debts in money that is worth more than the money they borrowed, as well as any financial market participants who invest or speculate on the prospect of rising prices.

Recession

1. A recession is a significant, widespread, and prolonged downturn in economic activity.A common rule of thumb is that two consecutive quarters of negative gross domestic product (GDP) growth mean recession, although more complex formulas are also used.
2. A recession is a significant, pervasive, and persistent decline in economic activity. Economists measure a recession length from the prior expansion peak to downturn trough.
3. Recessions may last for few months, but the economy may not recover to its former peak for years. Nations use fiscal and monetary policies to limit the risks of a recession.
4. The declines in economic output and employment that recessions cause can become self-perpetuating.
5. For example, declining consumer demand can prompt companies to lay off staff, which affects consumer spending power, which can further weaken consumer demand.
6. Similarly, the share markets that often accompany recessions can reverse the wealth effect, suddenly making people less wealthy and further trimming consumption.
7. Since the Great Depression, governments around the world have adopted fiscal and monetary policies to prevent recession.