MICRO ECONOMIC ANALYSIS -II

UNIT - I

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ELASTICITY OF DEMAND

- The law of demand indicates the direction of change in quantity demanded to a change in price.
- It states that when price falls, demand rises. But how much the quantity demanded rises (or falls) following a certain fall (or rise) in prices cannot be known from the law of demand.
- That is to say, how much quantity demanded changes following a change in the price of a commodity can be known from the **concept of elasticity of demand**
- By elasticity of demand, we normally mean **price elasticity of demand**
- **EP = proportional changes in quantity demanded/proportional changes in price**

TYPES OF OWN (PRICE) ELASTICITY OF DEMAND:

- **Elastic Demand (EP > 1):**
- Demand is said to be elastic if the change in price causes a more than proportionate change in quantity demanded
- **Inelastic Demand (EP < 1):**
- When the change in price causes a less than proportionate change in quantity demanded, demand is inelastic
- **Unit elasticity of Demand (EP = 1):**
- When the change in price causes the same proportionate change in quantity demanded, demand has unit elasticity.

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- **Perfectly Elastic Demand (EP = ∞)**
- When a slight change in price causes a great change in quantity demanded, the value of elasticity of demand tends to be infinity and demand is said to be infinite or perfectly elastic.
- **Perfectly Inelastic Demand (EP = 0):**
- If quantity demanded becomes completely unresponsive to price changes, the coefficient tends to be zero. In this case, whatever the price, even if it is zero, quantity demanded will remain fixed at a particular level

MEASUREMENT OF ELASTICITY OF DEMAND:

- There are three methods of measuring elasticity of demand. These are:
- **Total outlay (expenditure) method**
- **The percentage method**
- **Point elasticity method**
- **Arc elasticity method**
- **Cross price elasticity**
- **Income elasticity**

TOTAL OUTLAY METHOD

- **Total Outlay = Price X Quantity Demanded**
- **There are three possibilities:**
- (i) 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. ED > 1.
- (ii) 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 or ED = 1.
- (iii) If 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 classic or elasticity of demand is less than one (ED < 1)

PROPORTIONATE METHOD

- According to this method, “price elasticity of demand is the ratio of percentage change in the quantity demanded to the percentage change in price of the commodity.”
- It is also known as the Percentage Method, Ratio Method, and Arithmetic Method.
- % change in qty demand / % change in price level

POINT METHOD

- Also known as geometric elasticity
- Point elasticity = Lower segment of the demand curve / Upper segment of the demand curve
- PE = L / U

ARC Elasticity

- “When elasticity is computed between two separate points on a demand curve, the concept is called Arc elasticity”

CROSS PRICE ELASTICITY OF DEMAND

- Cross price elasticity of demand measures that how a change in the price of one good will affect the quantity demanded of another good.

Income elasticity of demand

- Income Elasticity of demand measures how a change in buyers income will lead to a change in the demand for a good.

- Y e = % changes in Q.D / % changes Y

LAW OF SUPPLY

- The law of supply states that, all other factors being equal, as the price of a good increases, the quantity of goods that suppliers offer will increase and vice versa.
- As the price of an item goes up, suppliers will attempt to maximize their profits by increasing their sale.
- When consumers start paying more for cupcakes than for donuts, bakeries will increase their production of cupcakes and reduce their production of donuts in order to increase their profits.

TYPES OF LAW OF SUPPLY

There are five types of supply—

- market supply
- short-term supply
- long-term supply
- joint supply and
- composite supply.

There are two types of supply curves —

- individual supply curves and market supply curves.
- Individual supply curves graph the individual supply schedule, while market supply curves represent the market supply schedule.

FACTORS AFFECTING SUPPLY

1. Changes to the Cost of Production

When the price of an input increases, supply decreases. This is because the producer of a product is less likely to produce it when costs are higher.

2. Number of Sellers

When new businesses enter the market, supply increases, moving the supply curve to the right.

3. Technology

The use of new and advanced technology can push the supply curve to the right. As new innovative techniques enter the supply chain, businesses can create more products

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4. Natural and Social Factors

Natural and social factors generally cause the supply curve to shift to the left by reducing supply.

5. Future Expectations

When sellers expect future demand to rise, they may hold back supply in order to capture increased demand. This would reduce supply and shift the supply curve to the left.

ELASTICITY OF SUPPLY

- The price elasticity of supply is a measure of the degree of responsiveness of the quantity supplied to the change in the price of a given commodity.
- ES= %Δ P / %Δ Q.D

Price elasticity of supply is of 5 types

- perfectly elastic
- more than unit elastic
- unit elastic supply
- less than unit elastic
- perfectly inelastic.

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Perfectly Elastic Supply:

This means that even for a slight increase in price, the supply becomes infinite. For a perfectly elastic supply, the percentage change in the price is zero for any change in the quantity supplied.

- **More than Unit Elastic Supply:** When the percentage change in the supply is greater than the percentage change in price, then the commodity has the price elasticity of supply greater than 1.

- **Unit Elastic Supply:** A product is said to have a unit elastic supply when the change in its quantity supplied is proportionate or equal to the change in its price. The elasticity of supply, in this case, is equal to 1.

- **Less than Unit Elastic Supply:** When the change in the supply of a commodity is lesser as compared to the change in its price, we can say that it has a relatively less elastic supply. In such a case, the price elasticity of supply is less than 1.

- **Perfectly Inelastic Supply:** Product supply is said to be perfectly inelastic when the percentage change in the quantity supplied is zero irrespective of the change in its price.

CONSUMER SURPLUS

- A consumer surplus happens when the price consumers pay for a product or service is less than the price they're willing to pay
- Consumer surplus is based on the economic theory of marginal utility
- Consumer surplus always increases as the price of a good falls and decreases as the price of a good rises
- C.S = Expected to pay / Actually paid
- Consumer surplus with producer surplus equals the total economic surplus