Managerial Economics

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Demand

- Definition
- Types of demand
  - Direct and Derived demand
  - Recurring and Replacement demand
  - Complementary and Competing demand

General Determinants of Demand

- Price of the product
- Income of the consumers
  - Normal goods
  - Inferior goods
- Price ofrelated products
- Tastes and preferences
- Advertising
- Consumer expectation of future Income and Price
- Population and Economic growth

Law of Demand

- Law of Demand states that other things remaining the same, demand for a product is inversely proportional to price of the product
- Reasons behind Law of Demand
  - Price effect
  - Substitution effect
  - Diminishing marginal utility
  - Income effect

Demand Schedule and Demand Curve

- Demand schedule is the list or tabular statement of the different combinations of price and quantity demanded
- Demand Curve is a graphical representation of the demand schedule of any commodity and it shows the relationship between price of a good and quantity demanded by the consumers

Exceptions to Law of Demand

- Giffengoods
- Snob appeal
- Demonstration effect
- Future expectations of price
- Goods with no substitutes

Elasticity of Demand

- Law of demand gives the direction of change in quantity demanded in response to a given change in price of a commodity
- Elasticity of demand measures the degree of responsiveness of the quantity demanded of a commodity to a given change in any of the determinants of demand
- Elasticity of demand shows % change in quantity demanded of a commodity to a % change in any of the determinants of demand for that commodity

Types of Elasticity of Demand

- Price elasticity of Demand
- Income elasticity of Demand
- Cross elasticity of Demand
- Advertising(promotional) elasticity of Demand

Price Elasticity of Demand

- It measures the proportionate change in quantity demanded of a commodity to a given change in price
- Degrees of Price elasticity
  - Perfectly elastic demand
  - Highly elastic demand
  - Unitary elastic demand
  - Relatively inelastic demand
  - Perfectly inelastic demand

Determinants of Price elasticity of demand

- Nature of commodity- Necessity VS Luxury
- Availability and proximity of substitutes
- Alternative uses of the commodity
- Proportion of income spent on the commodity
- Time- long run VS short run
- Durability of the commodity
- Items of addiction

Income elasticity of Demand

- It measures the degree of responsiveness of demand for a commodity to a given change in consumer's income
- Degrees of Income elasticity
  - Perfectly elastic
  - Perfectly inelastic
  - Relatively elastic
  - Relatively inelastic
  - Unitary elastic
- Positive(for normal goods) , Zero (for neutral goods) or Negative (for inferior goods) Income Elasticity

Promotional Elasticity of Demand

- It measures the degree of responsiveness of demand to a given change in advertising expenditure
- When elasticity is >1, a firm should go for higher expenditure on advertising
- When elasticity is <1, a firm should not spend too much on advertising

Cross Elasticity of Demand

- It measures the degree of responsiveness of demand for one good to the given change in price of another related commodity
- Degrees of Elasticity
  - Positive Cross Elasticity
  - Negative Cross Elasticity

Application of Elasticity of Demand

- Determination of Price
- Basis for price discrimination
- Government policies of Taxation

Exercise

- 1. Consider following information about ABC ltd that produces ball pens.

- Calculate Price elasticity of demand

Price per unit	**Quantity Demanded**
10	20 units
9	25 units

Exercise 2

- If Price of product X changes from 100 to 105 and demand for that product falls from 40 units to 38 units then how elastic the demand for the product be?

Exercise 3

- If Income of the consumer increases from Rs.1000 to Rs. 1500 and demand for a product increases from 20 units to 32 units. Such product will have which level of elasticity?
- **Options:**
- 1. Negative
- 2. Zero
- 3. Positive
- 4. Relatively inelastic

Exercise 4

- Consider following scenario

Price of product A	Quantity demanded of product A	Quantity demanded ofproduct B
10	5	10
11	4	11

- Calculate Cross elasticity of demand.

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- If two products are unrelated then what would be cross elasticity of demand?

Case

- A leading producer of consumer goods, interested in entering the business of supplying salmon, carried out a study to estimate the quantity demanded of fresh premium salmon (Atlantic and Pacific) four years hence.

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- The consumption of fresh premium salmon at the time of study was estimated as

Country	Thousands of tons consumed per year
United States	90
Canada	14
Japan	110
France	35
United Kingdom	16
Germany	8
Other European countries	22
Total	**295**

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- Income elasticity in all other countries except Japan is estimated to be 4 and in Japan it is estimated to be 2. If in next 4 years income in all the countries listed above is estimated to go up by 10%, how much will be the**total quantity demanded of fresh premium salmon**four years from now?

Exercise

- If demand curve for ABC limited’s product is as follows:

P= 2000-50Q

Where P is the price of the product and Q is the number of units sold.

- To sell 20 units per month, what price does ABC ltd. Have to charge?
- If it sets price at Rs.500, how many units will it sell per month?

2. After a careful statistical analysis, Star Company concludes that demand function for its product is

Q= 500-3P+2Pr+0.1 I

Where Q is the quantity demanded, P is the price of the product, Pr is the price of the related product, I is per capita disposable income. At present P=Rs.10 Pr=Rs.20, and I= Rs.6000

- What is the Price elasticity of demand for the firm's product?
- What is the Income elasticity of demand for the firm's product?
- What is the Cross elasticity of demand between its product and its rival's product?
- What is the implicit assumption about population in the market?