SPD College, Garhwa (JH)

Department of Economics

presents …

Presentation on:

Elasticity of Demand

(UG Sem-I: Micro Economics : NEP)

For publication on :

www.spdcollege.org

Main Points of the topic

- Meaning of Elasticity of Demand
- Definition of elasticity
- Types of Elasticity
- Types of Price Elasticity
- Measurement of Price Elasticity
- Mrs. Robinson’s View

Meaning of Elasticity of Demand

Law of Demand illustrates merely the inverse relation between quantity demanded for a commodity and its price. On the other hand, the elasticity of demand studies the proportionate change in quantity demanded as a result of proportionate change in price.

“Elasticity of demand is a measure of the responsiveness of quantity demanded to a change in price.” – JK Estham

Prof. G. Stigler's definition

$$Ed\ (\eta) = \frac{\text{Proportionate change in amount demanded}}{\text{Proportionate change in price}}$$

[Expressing the change by Δ]

$$= \frac{\frac{\Delta Q}{Q}}{\frac{\Delta P}{P}}$$

$$= \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$$

$$= (-)\ P/Q \cdot \Delta Q / \Delta P$$

Numerical example ….

The price of pen is @ ₹ 4.00 / pen and demand is 10 units. If the price falls to ₹2.00 / each demand increases to 16 pen. Then what will be elasticity of demand?

Solution : Here, P=4, Q=10 and $\Delta P=4-2=2$, $\Delta Q=16-10=6$.

Now, $Ed = (-) P/Q \cdot \Delta Q / \Delta P$

$= (-) 4/10 \cdot 6 / 2 = 1.20 > 1$

(greater than unity)

Types of Elasticity of Demand

1. Price Elasticity – related to change in price of commodity and quantity demanded.

2. Income Elasticity – related to change in the income of consumers and quantity demanded.

3. Cross Elasticity – related to change in price of X and quantity demanded of Y.

Types of Price Elasticity

- **Perfectly inelastic (Ed = 0)**
- **Perfectly elastic (Ed = ∞)**
- **Unitary elastic (Ed = 1)**
- **Elasticity less than 1 (Ed < 1)**
- **Elasticity greater than 1 (Ed > 1)**

Measurement of Price Elasticity

- Total Expenditure Method (Alfred Marshall)
- Proportionate/Percentage Method (Prof. Flux)
- Arc Method
- Point Method or Geometrical Method.
- Mathematical Method (G. Stigler)

Mrs. Joan Robinson's view

E = AR ÷ (AR – MR)

Where, AR = Average Revenue

MR = Marginal Revenue

E = Elasticity

..... The End .....

Thanks for watching

Presented by: Prof. Arjun Prasad
HoD, Economics
SPD College, Garhwa (JH)
Created on 25/05/2024

Contact via E-mail : arjun.economics2012@gmail.com