

**Dr.SNS RAJALAKSHMI COLLEGE OF ARTS AND SCIENCE
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**DEPARTMENT OF COMMERCE WITH
INFORMATION TECHNOLOGY**

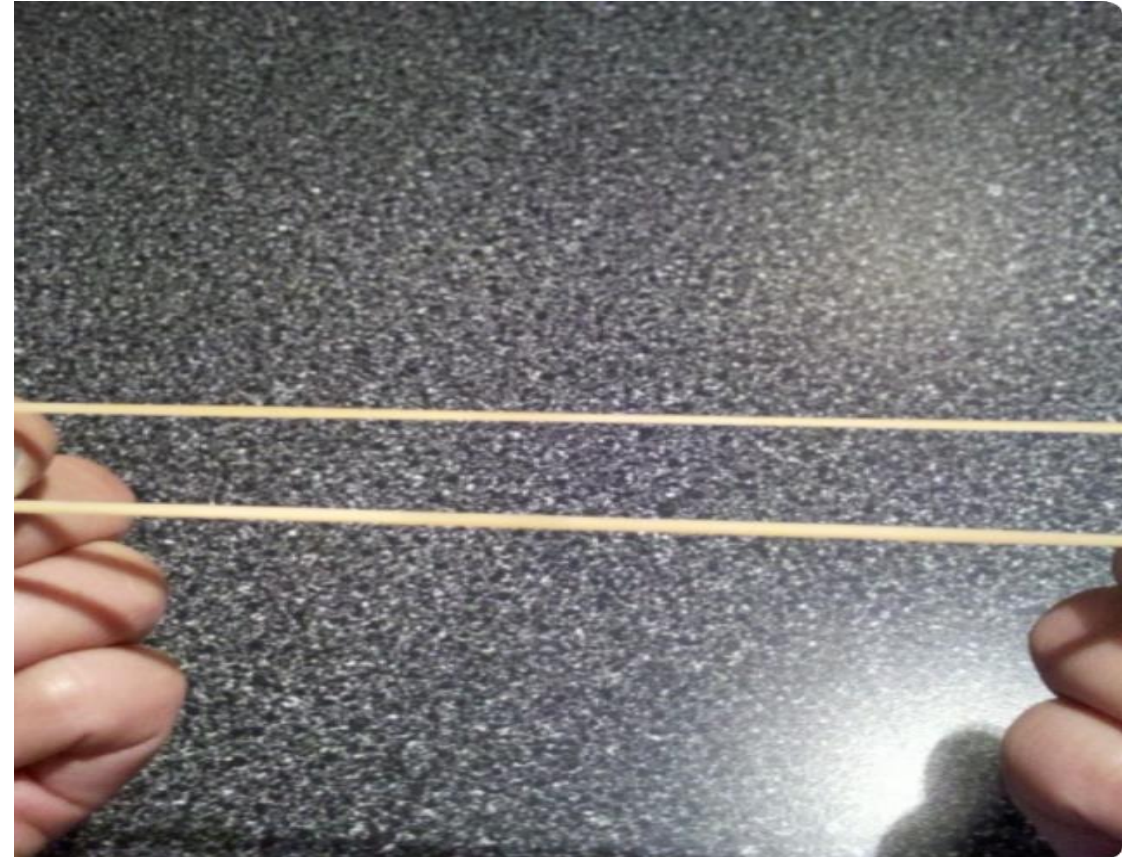
MANAGERIAL ECONOMICS
Elasticity of Demand

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What is Elasticity?

In economics, **elasticity** measures how much the quantity demanded of a good changes when another factor—such as price or income—changes.

Think of it like a rubber band: How much does it stretch (respond) when you pull it (change a variable)?



Calculating Elasticity

The Formula

To quantify elasticity, economists compare the percentage change in quantity demanded to the percentage change in the determinant (usually price).

$$\frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Determinant}}$$

A result greater than 1 indicates high responsiveness (Elastic).

Price Elasticity of Demand (PED)



Price Sensitivity

This is the most common form of elasticity. It measures how consumers react to a change in the price of a good.

Law of Demand: As price increases, quantity demanded decreases.

PED tells us *how much* it decreases.

Degrees of Elasticity



Perfectly Elastic

Demand changes infinitely with a tiny price change. (Horizontal Curve)



Unitary Elastic

Percentage change in demand equals percentage change in price.



Perfectly Inelastic

Demand does not change at all, regardless of price. (Vertical Curve)

Real World Examples



Elastic Demand (>1)

Luxury Goods: Consumers can easily delay purchase or find substitutes if price rises.



Inelastic Demand (<1)

Necessities: Consumers must buy these (e.g., milk, medicine) even if price rises.

Unitary Elasticity



A Perfect Balance

Unitary elasticity occurs when the percentage change in quantity demanded is **exactly equal** to the percentage change in price.

In this scenario, the total revenue for the seller remains constant despite the price change.

Income Elasticity of Demand

The Income Effect

Measures responsiveness to a change in consumer income.

Normal Goods: Demand increases as income rises (e.g., Restaurant meals).

Inferior Goods: Demand decreases as income rises (e.g., Generic brands, Instant noodles).



Cross Elasticity



Substitutes (Positive XED)





If the price of Coffee rises, demand for Tea increases.

Complements (Negative XED)

If the price of Cars rises, demand for Petrol may decrease.

It measures how the price of one good affects the demand for another.

Factors Affecting Elasticity

-  **Availability of Substitutes:** More substitutes mean higher elasticity. If Coke is expensive, buy Pepsi.
-  **Nature of the Good:** Luxuries are elastic; Necessities are inelastic.
-  **Time Period:** Demand is more elastic in the long run as consumers find alternatives.
-  **Proportion of Income:** Goods that take up a large % of income are more elastic.

Why Does It Matter?

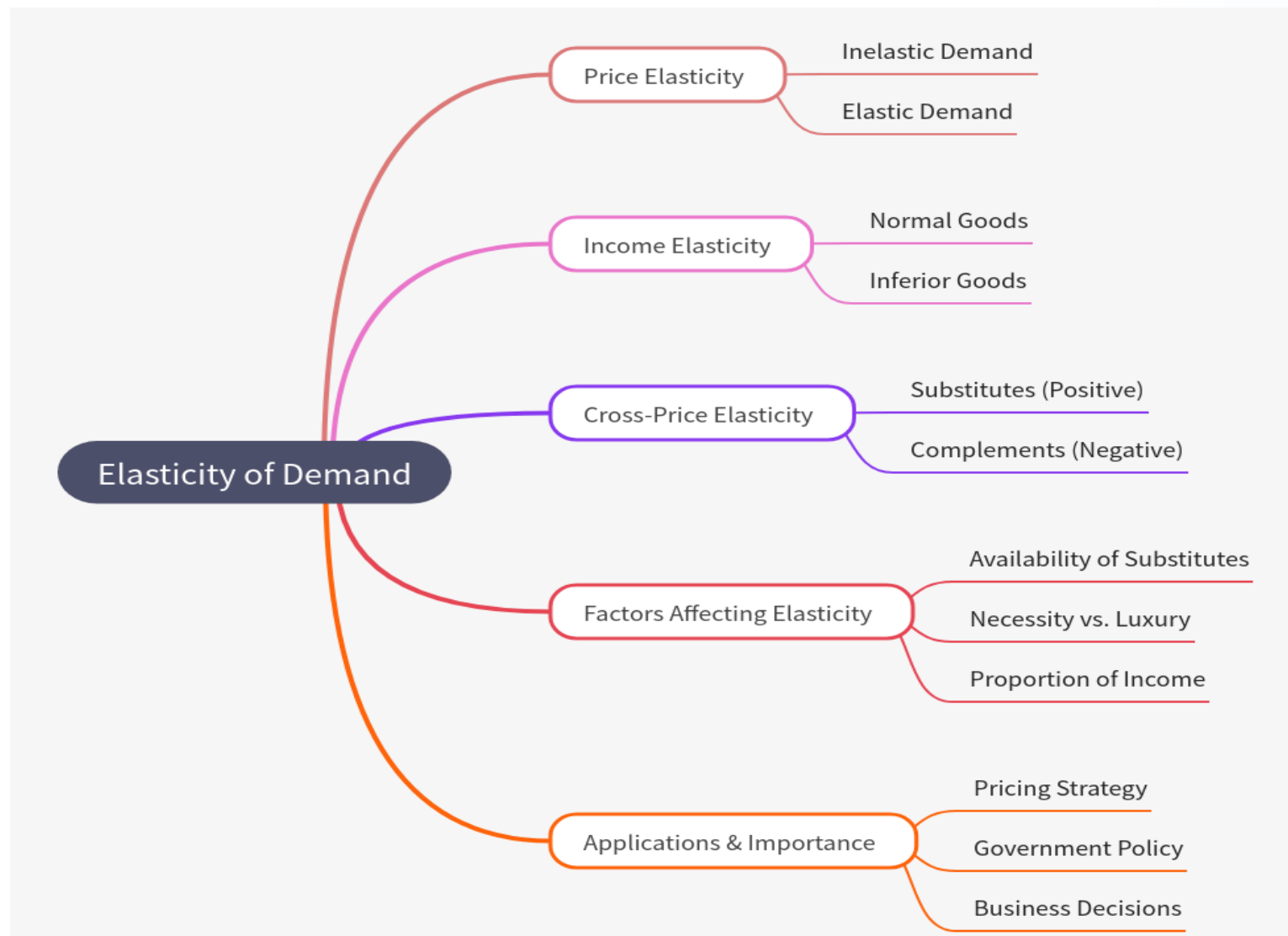
For Businesses

Helps in pricing decisions. If demand is inelastic, a firm can raise prices to increase revenue without losing many customers.

For Government

Crucial for taxation. Governments tend to tax goods with inelastic demand (like tobacco or fuel) because people will continue to buy them.

Mind Map : Elasticity of Demand



Case Study



Case Study

A café increases the price of its special cold coffee from ₹120 to ₹150. After this change, daily sales fall from **200 cups to 130 cups**.

Question

Is the demand for cold coffee **elastic or inelastic**?

Explain your answer.

Solution :

The demand for cold coffee is **elastic**.

•A **25% increase in price** (₹120 → ₹150) leads to a **35% decrease in quantity demanded** (200 → 130).

•Since the percentage fall in demand is **greater** than the percentage rise in price, **elasticity > 1**.

Thus, the product has **elastic demand**, meaning customers are sensitive to price changes.