

### JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

## **School of Business**

# Department of Economics, Accounting & Finance CENTER OF PROFESSIONAL STUDIES (COPS) CPA/CIFA SECTION 2 ECONOMICS

# Factors Which Affect the Elasticity of Demand of a Commodity

### 1. Nature of commodity:

Elasticity of demand of a commodity is influenced by its nature. A commodity for a person may be a necessity, a comfort or a luxury.

- i. When a commodity is a necessity like food grains, vegetables, medicines, etc., its demand is generally inelastic as it is required for human survival and its demand does not fluctuate much with change in price.
- ii. When a commodity is a comfort like fan, refrigerator, etc., its demand is generally elastic as consumer can postpone its consumption.
- iii. When a commodity is a luxury like AC, DVD player, etc., its demand is generally more elastic as compared to demand for comforts.
- iv. The term 'luxury' is a relative term as any item (like AC), may be a luxury for a poor person but a necessity for a rich person.

# 2. Availability of substitutes:

Demand for a commodity with large number of substitutes will be more elastic. The reason is that even a small rise in its prices will induce the buyers to go for its substitutes. For example, a rise in the price of Pepsi encourages buyers to buy Coke and vice-versa.

Thus, availability of close substitutes makes the demand sensitive to change in the prices. On the other hand, commodities with few or no substitutes like wheat and salt have less price elasticity of demand.

#### 3. Income Level:

Elasticity of demand for any commodity is generally less for higher income level groups in comparison to people with low incomes. It happens because rich people are not influenced much by changes in the price of goods. But poor people are highly affected by increase or decrease in the price of goods. As a result, demand for lower income group is highly elastic.

## 4. Level of price:

Level of price also affects the price elasticity of demand. Costly goods like laptop, Plasma TV, etc. have highly elastic demand as their demand is very sensitive to changes in their prices. However, demand for inexpensive goods like needle, match box, etc. is inelastic as change in prices of such goods do not change their demand by a considerable amount.

# 5. Postponement of Consumption:

Commodities like biscuits, soft drinks, etc. whose demand is not urgent, have highly elastic demand as their consumption can be postponed in case of an increase in their prices. However, commodities with urgent demand like life-saving drugs, have inelastic demand because of their immediate requirement.

#### 6. Number of Uses:

If the commodity under consideration has several uses, then its demand will be elastic. When price of such a commodity increases, then it is generally put to only more urgent uses and, as a result, its demand falls. When the prices fall, then it is used for satisfying even less urgent needs and demand rises.

For example, electricity is a multiple-use commodity. Fall in its price will result in substantial increase in its demand, particularly in those uses (like AC, Heat convector, etc.), where it was not employed formerly due to its high price. On the other hand, a commodity with no or few alternative uses has less elastic demand.

### 7. Share in Total Expenditure:

Proportion of consumer's income that is spent on a particular commodity also influences the elasticity of demand for it. Greater the proportion of income spent on the commodity, more is the elasticity of demand for it and vice-versa.

Demand for goods like salt, needle, soap, match box, etc. tends to be inelastic as consumers spend a small proportion of their income on such goods. When prices of such goods change,

consumers continue to purchase almost the same quantity of these goods. However, if the proportion of income spent on a commodity is large, then demand for such a commodity will be elastic.

#### 8. Time Period:

Price elasticity of demand is always related to a period of time. It can be a day, a week, a month, a year or a period of several years. Elasticity of demand varies directly with the time period. Demand is generally inelastic in the short period.

It happens because consumers find it difficult to change their habits, in the short period, in order to respond to a change in the price of the given commodity. However, demand is more elastic in long rim as it is comparatively easier to shift to other substitutes, if the price of the given commodity rises.

#### 9. Habits:

Commodities, which have become habitual necessities for the consumers, have less elastic demand. It happens because such a commodity becomes a necessity for the consumer and he continues to purchase it even if its price rises. Alcohol, tobacco, cigarettes, etc. are some examples of habit-forming commodities.

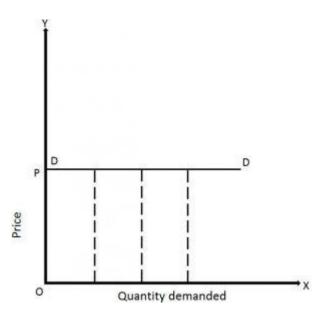
Finally, it can be concluded that elasticity of demand for a commodity is affected by number of factors. However, it is difficult to say, which particular factor or combination of factors determines the elasticity. It all depends upon circumstances of each case.

## Types or degrees of price elasticity of demand

There are 5 types of elasticity of demand:

## 1. Perfectly Elastic Demand ( $E_P = \infty$ )

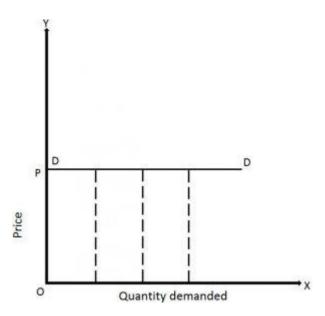
The demand is said to be perfectly elastic if the quantity demanded increases infinitely (or by unlimited quantity) with a small fall in price or quantity demanded falls to zero with a small rise in price. Thus, it is also known as infinite elasticity. It does not have practical importance as it is rarely found in real life.



In the given figure, price and quantity demanded are measured along the Y-axis and X-axis respectively. The demand curve **DD** is a horizontal straight line parallel to the X-axis. It shows that negligible change in price causes infinite fall or rise in quantity demanded.

# 2. Perfectly Inelastic Demand (EP = 0)

The demand is said to be perfectly inelastic if the demand remains constant whatever may be the price (i.e. price may rise or fall). Thus, it is also called zero elasticity. It also does not have practical importance as it is rarely found in real life.



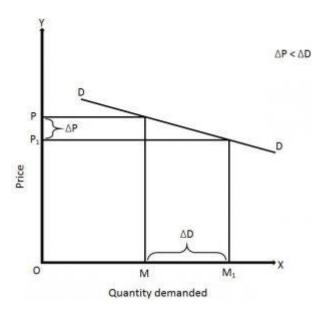
In the given figure, price and quantity demanded are measured along the Y-axis and X-axis respectively. The demand curve **DD** is a vertical straight line parallel to the Y-axis. It shows

that the demand remains constant whatever may be the change in price. For example: even after the increase in price from **OP** to **OP<sub>2</sub>** and fall in price from **OP** to **OP<sub>1</sub>**, the quantity demanded remains at **OM**.

# 3. Relatively Elastic Demand (EP> 1)

The demand is said to be relatively elastic if the percentage change in demand is greater than the percentage change in price i.e. if there is a greater change in demand there is a small change in price. It is also called highly elastic demand or simply elastic demand. For example:

If the price falls by 5% and the demand rises by more than 5% (say 10%), then it is a case of elastic demand. The demand for luxurious goods such as car, television, furniture, etc. is considered to be elastic.

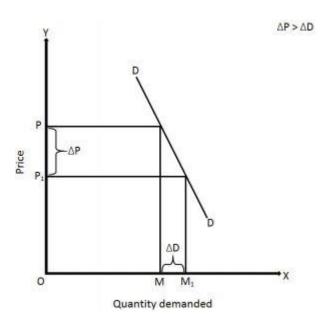


In the given figure, price and quantity demanded are measured along the Y-axis and X-axis respectively. The demand curve **DD** is flatter, which shows that the demand is elastic. The small fall in price from **OP** to **OP**<sub>1</sub> has led to greater increase in demand from **OM** to **OM**<sub>1</sub>. Likewise, demand decrease more with small increase in price.

## **4.** Relatively Inelastic Demand ( $E_p < 1$ )

The demand is said to be relatively inelastic if the percentage change in quantity demanded is less than the percentage change in price i.e. if there is a small change in demand with a greater change in price. It is also called less elastic or simply inelastic demand.

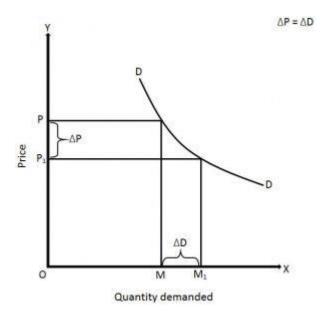
**For example:** when the price falls by 10% and the demand rises by less than 10% (say 5%), then it is the case of inelastic demand. The demand for goods of daily consumption such as rice, salt, kerosene, etc. is said to be inelastic.



In the given figure, price and quantity demanded are measured along the Y-axis and X-axis respectively. The demand curve DD is steeper, which shows that the demand is less elastic. The greater fall in price from OP to  $OP_1$  has led to small increase in demand from OM to  $OM_1$ . Likewise, greater increase in price leads to small fall in demand.

# 5. Unitary Elastic Demand (Ep = 1)

The demand is said to be unitary elastic if the percentage change in quantity demanded is equal to the percentage change in price. It is also called unitary elasticity. In such type of demand, 1% change in price leads to exactly 1% change in quantity demanded. This type of demand is an imaginary one as it is rarely applicable in our practical life.



In the given figure, price and quantity demanded are measured along Y-axis and X-axis respectively. The demand curve DD is a rectangular hyperbola, which shows that the demand is unitary elastic. The fall in price from OP to  $OP_1$  has caused equal proportionate increase in demand from OM to  $OM_1$ . Likewise, when price increases, the demand decreases in the same proportion.