

# YESHWANTRAO CHAPHEKAR COLLEGE, PALGHAR

PRESENTATION

ON

CHAPTER- 4

ELASTICITY OF DEMAND

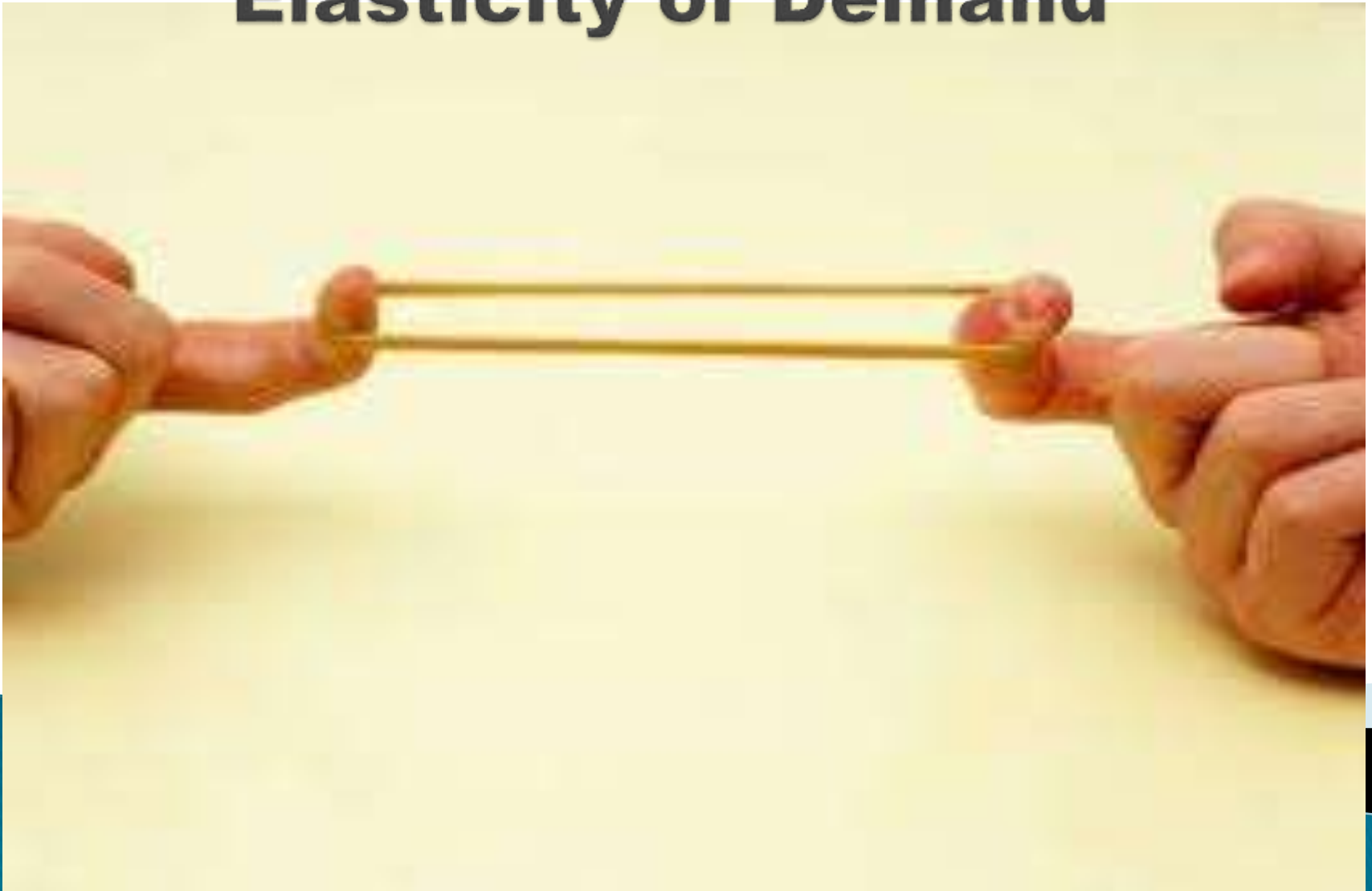
CLASS- F.Y.BMS/F.Y.BAF

PRESENTED BY:

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# Elasticity of Demand



# Concept of Elasticity of Demand :

- ▶ Elasticity of Demand is a concept given by famous economist Prof. Alfred Marshall.
- ▶ Elasticity of Demand is defined as the sensitiveness or responsiveness of demand to changes in price.
- ▶ Demand elasticity is important because it helps firms to model the potential change in demand due to changes in price of the good, the effect of changes in prices of other goods.

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# Price Elasticity of Demand :

- ▶ The change in the quantity demanded of a product due to a change in its price is known as Price elasticity of demand.

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- ▶  $Ed = \frac{\text{Proportionate Change in quantity demanded}}{\text{Proportionate Change in price}}$

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# Degrees of Elasticity :

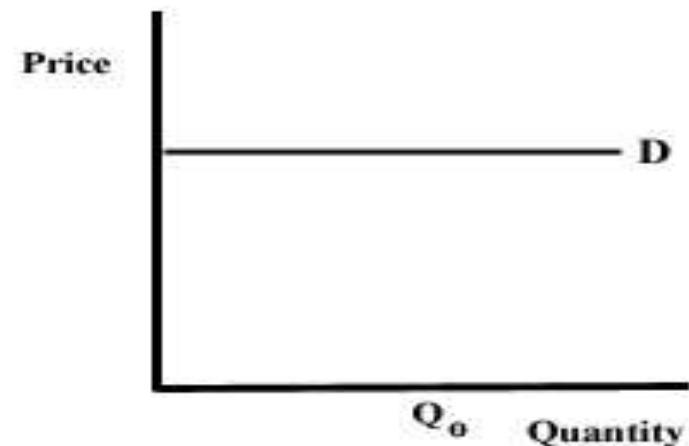
- ▶ Some goods and services have more elastic demand while others have relative elastic demand.
- ▶ Price elasticity of demand ranges from Zero to Infinity

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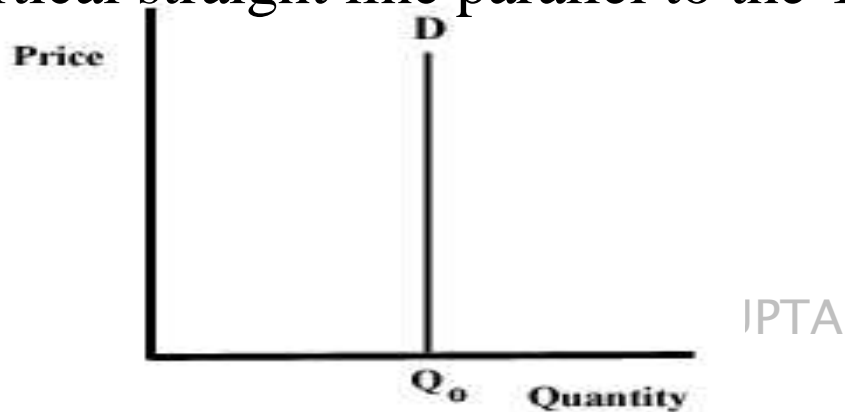
# 1. Perfectly Elastic Demand :

- ▶ When a small change in price lead to an infinite( $\infty$ ) change in quantity demanded.
- ▶ Demand curve is a horizontal straight line parallel to X-axis.
- ▶ Ex:- Suppose a place with hundreds of retailer of a product selling same product than if any of them increase the price than the demand will become zero.
- ▶  $E = \infty$



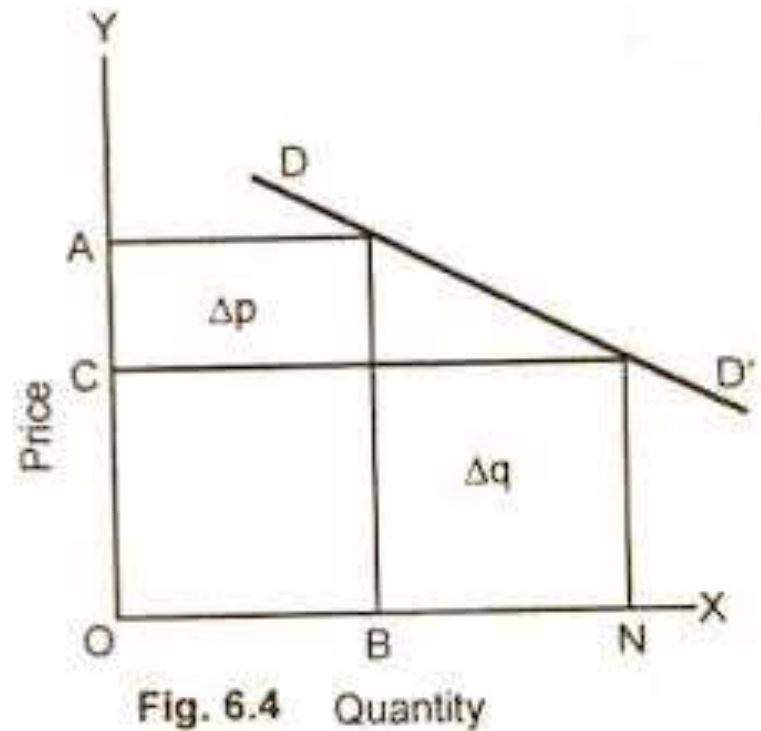
## 2. Perfectly Inelastic Demand :

- ▶ Under perfectly inelastic demand, irrespective of any rise or fall in price of a commodity, the quantity demanded remains the same.
- ▶ E.g.- ????????
- ▶ Demand curve is a vertical straight line parallel to the Y-axis..
- ▶  $E = 0$



### 3. Relatively Elastic Demand :

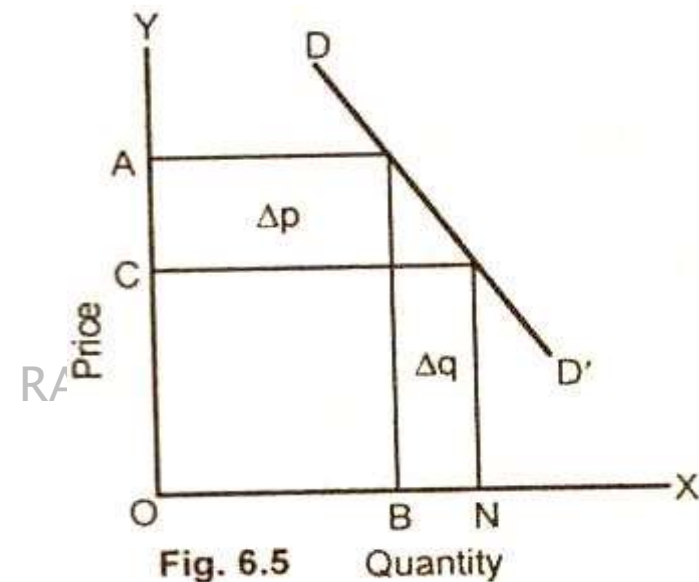
- ▶ A small change in price lead to a big change in quantity demanded.
- ▶ Large number of perfect substitute.
- ▶ Soap, paste, etc.
- ▶  $E > 1$





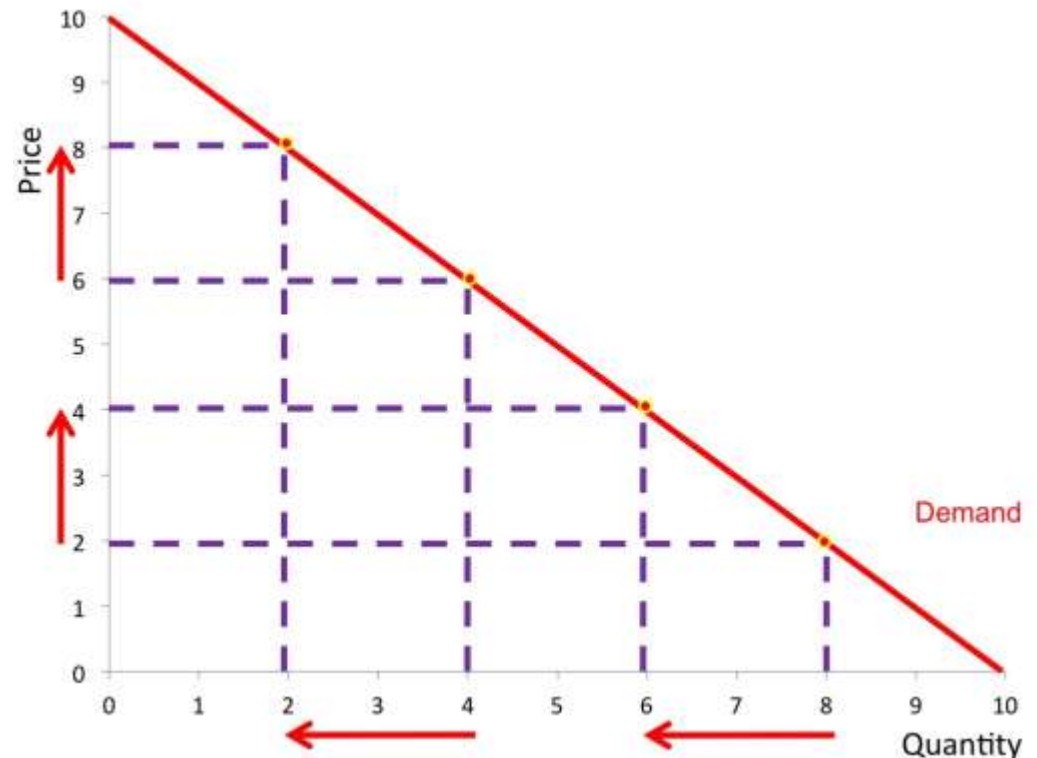
## 4. Relatively Inelastic Demand :

- ▶ The change in demand will be less than the change in price and here the demand curve is steeper one.
- ▶ Small number of imperfect substitutes.
- ▶ Apple to mango
- ▶  $E < 1$  (E of D is lesser than one)



## 5. Unitary Elastic Demand :

- ▶ A given percentage change in price brings about an equal proportionate change in quantity demanded.
- ▶  $E = 1$



# Income Elasticity of Demand :

- ▶ It is the responsiveness of quantity demanded of a commodity when there is a change in income.
- ▶ It is symbolically represented as
- ▶  $\text{Income } Ed = \frac{\text{Proportionate Change in quantity demanded}}{\text{Proportionate Change in income}}$

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# Types of Income Elasticity

## ➤ Unitary Income Elasticity:-

Here the change in quantity demanded is equal to the change in income. The elasticity ratio is equivalent to 1.

E.g.- Fruits , Vegetables

## ➤ Income Elasticity Greater than Unity:- In this case the change in quantity demanded will be more than the change in income. Here $ED > 1$ .

E.g.- TV sets, Cars.

## ➤ Income Elasticity Less than 1:- In this case the change in quantity demanded will be less than the change in income. $ED < 1$ . E.g. – Food grains

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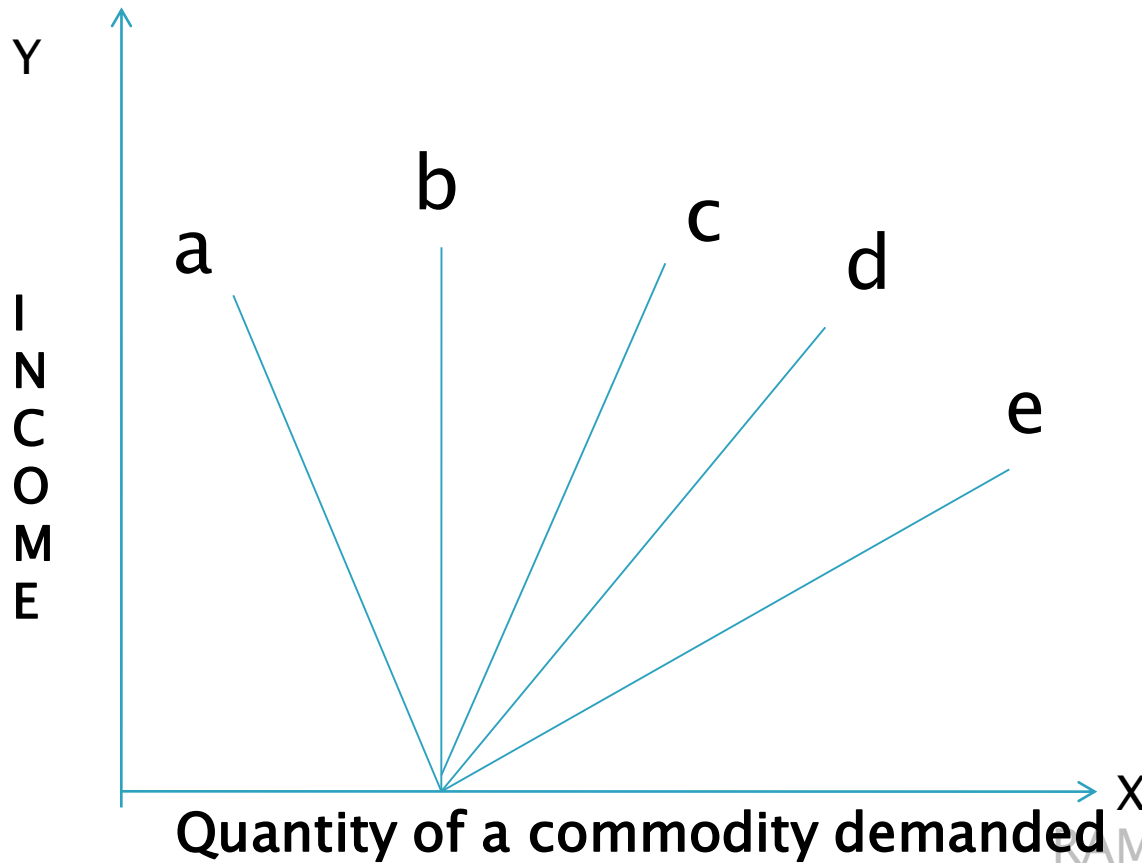
- ▶ **Income Elasticity Equivalent to 0:-**

In this case when income changes the quantity demanded will remain the same. Here elasticity is said to be equivalent to 0. E.g. – Salt, Matches

- ▶ **Negative Income Elasticity:-** when income increases the quantity demanded will decline. It happens in the case of inferior goods.

E.g.–Jowar, Bajra etc

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- a :  $E_d < 0$
- b :  $E_d = 0$
- c :  $E_d < 1$
- d :  $E_d = 1$
- e :  $E_d > 1$

NATURE OF GOODS	TYPES OF ELASTICITY	EXAMPLES
NORMAL GOODS	POSITIVE	FRUITS
INFERIOR	NEGATIVE	JOWAR
LUXURY	POSITIVE, GREATER THAN 1	TV SETS
ESSENTIAL	POSITIVE, LESS THAN 1	FOOD GRAINS
NEUTRAL	ZERO	SALT

# Cross Elasticity of Demand

- ▶ It is the change in the quantity demanded of a commodity due to the change in the price of other commodities.
- ▶ 
$$\text{Cross ED} = \frac{\text{Proportionate change in quantity demanded of X}}{\text{Proportionate change in price of Y}}$$



# Cross Elasticity of Demand

- ▶ Positive Cross Elasticity of Demand–

When the price of Tea increases the demand for Coffee will increase. Since both the changes are in same direction cross elasticity is said to be positive.

- ▶ Negative Cross Elasticity of Demand– If two goods are complementary to each other, cross elasticity demand is said to be negative. e.g.– Car & Petrol, etc. When the price of petrol increases the demand for car will decline. When the changes are in opposite direction cross elasticity is said to be negative.

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# Goods with zero cross-price elasticity of demand . INDEPENDENT

- ▶ Goods A and B have no relationship.
- ▶ A fall in the price of good A leads to no change in the demand for good B
- ▶ Therefore the cross-price elasticity of demand is zero



Apples and salt!

# Promotional Elasticity of Demand

- ▶ It is the change in the quantity demanded of a commodity due to change in advertisement expenditure.
- ▶ Promotional ED =  $\frac{\text{proportionate change in quantity demanded of X}}{\text{proportionate change in advertisement expenditure}}$
- ▶ This elasticity of demand is very useful to business firms to find out the impact of their advertisement expenditure on the demand for the commodity.
- ▶ Future expansion, innovation etc are planned by business firms with the help of promotional elasticity of demand.

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# Factors Determining Elasticity of Demand

## 1. Nature of commodity-

If the commodities are necessities like foodgrains, water, salt, etc. demand will be **relatively inelastic**.

In case of comforts & luxury goods like car, A.C, etc. demand will be **elastic**.

## 2. Availability of Substitutes-

If the commodity has no. of substitutes the demand will be elastic and vice versa e.g.- cold drinks, tea, coffee, etc have a no. of substitutes. Therefore demand for them will be **elastic**. Certain goods like salt, potato, etc do not have a substitute. Hence demand will be **inelastic**.

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# Continued.....

## ➤ Number of uses-

If a commodity can be used for variety of purposes then demand will be elastic. E.g.- If electricity is available in abundance it will be used for variety of uses. Hence demand will be **elastic**. If it's supply is inadequate, it will be used only for essential purposes. Then the demand for the same good becomes **relatively inelastic**.

## ➤ Level of Income-

In the case of high level income groups demand will be inelastic whereas in the case of poor people demand will be elastic.

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# Continued.....

## ➤ Habits and customs-

If people are habituated to a particular commodity demand will be inelastic. E.g.- smokers will buy cigarettes whatever be the price. During festival time people have tendency to buy gold due to customs and traditions.

## ➤ Range of prices-

If the commodities are expensive then demand will be elastic. E.g.- T.V, refrigerator, A.C, etc. If the commodities are less expensive then demand remains inelastic. E.g.- Match box, etc.

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# Practical Applications of Elasticity of Demand

- ▶ It is used by the business firms in determining a number of things like the size of output to be produced, price to be charged, promotional expenditure to be incurred etc. In fact without elasticity it is not possible to take any decision.
- ▶ It is very useful in determining the prices of agricultural goods. The demand for agricultural goods is relatively inelastic. When the farmer produces a surplus, demand being inelastic, prices will start falling. The farmers will be penalized for producing a good output. At this point, the government has to interfere and purchase the surplus output from the farmers at a remunerative price. The government can take buffer stock operations & release the output at the time of scarcity. By doing this, prices can be stabilized. The farmers also get good revenue & are encouraged to produce more.

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- ▶ Trade union use this concept to their advantage. If the labourers know that their products are in demand, they can demand higher wages. Elasticity helps them to improve their bargaining power.
- ▶ Classification of goods into complementary and substitute goods can be done with the help of cross elasticity of demand.

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# Arc Elasticity of Demand :

- ▶ When elasticity is measured between two points on the same demand curve, it is known as arc elasticity

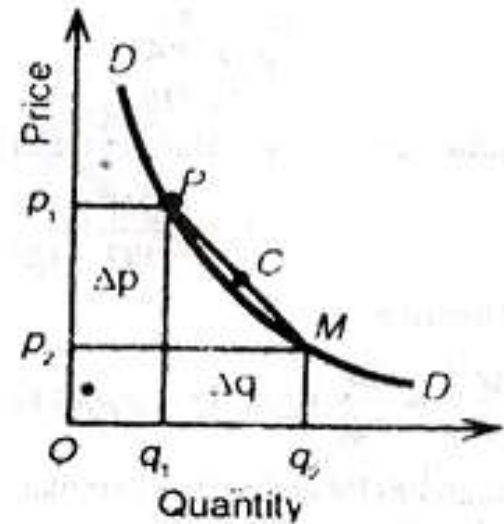


Figure 11.4