

Quadrant II – Transcript and Related Materials

Programme: Bachelor of Arts (First Year)

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Paper Code: ECC 101

Paper Title: Microeconomics- Paper I

Unit: 2- Elasticity of Demand and Supply

Module Name: Income Elasticity of Demand

Module No: 25

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Transcript

INCOME ELASTICITY OF DEMAND

Consumer's income is one of the important determinants of demand for a commodity. The demand for a commodity and consumer's income are directly related to each other.

Income elasticity of demand measures the relationship between a change in quantity demanded for a particular good and a change in income. It is defined as "the degree of responsiveness of quantity demanded of a goods or service to a change in income of the consumers". It is the ratio of the percentage change in the quantity demanded to the percentage change in income.

Measurement of Income Elasticity of Demand:

Mathematically it is expressed as

$$\text{Income elasticity of demand} = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$$

Symbolically, it is expressed as

$$E_y = \frac{\Delta Q}{\Delta Y} \cdot \frac{Y}{Q}$$

E_y = Income elasticity of demand

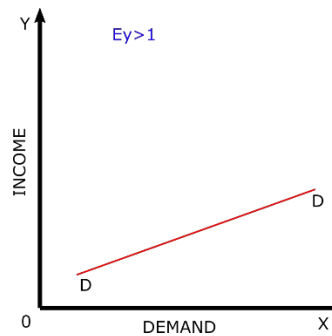
Q=Original quantity demanded
 ΔQ = Change in quantity demanded
Y= Original income of a consumer
 ΔY =Change in consumer's income

Types of Income Elasticity

1) High Income Elasticity ($E_y > 1$)

High Income elasticity is defined as the percentage change in quantity demanded for a commodity is greater than the percentage change in income. It means that relatively small change in income cause relatively large change in quantity. In other words, quantity is very responsive to changes in income. Income elasticity co-efficient is positive and greater than one. For example, luxury holidays, sports cars, Air conditioners etc.

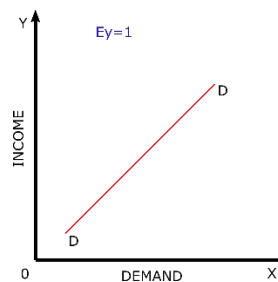
Income elasticity co-efficient is positive and greater one.



2) Unitary Income Elasticity ($E_y = 1$)

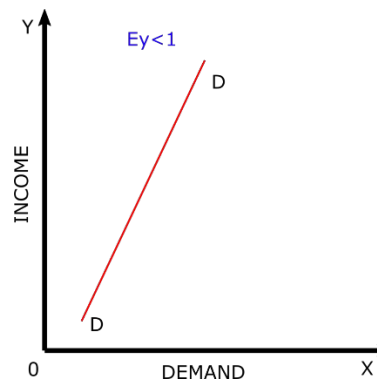
Unit Income Elasticity is defined as the percentage change in quantity demanded for a commodity is equal to percentage change in income. It means that any changes in income causes and equal proportion change in quantity. For example: When the consumer's income rises by 5% , the demand for a commodity also rises by 5%.

Income elasticity co-efficient is positive and equal to one.



3) Low Income Elasticity ($E_y < 1$)

Low Income Elasticity is defined as the percentage change in quantity demanded for a commodity is less than percentage change in income. It means that relatively large changes in income cause relatively small changes in quantity. For example: When the consumer's income rises by 10% , the demand rises by 3%. Essential commodities like foodgrains, vegetables, mass transport



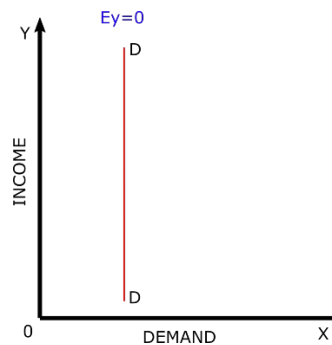
Income elasticity co-efficient is positive and equal to one

In these three types of elasticity we have discussed so far, the co-efficient is positive.

If there is direct relationship between income of the consumer and demand for the commodity, then income elasticity will be positive. That is, if the quantity demanded for a commodity increases with the rise in income of the consumer and vice versa, it is said to be positive income elasticity of demand. However the degree of responsiveness may vary.

4) Zero Income Elasticity ($E_y=0$)

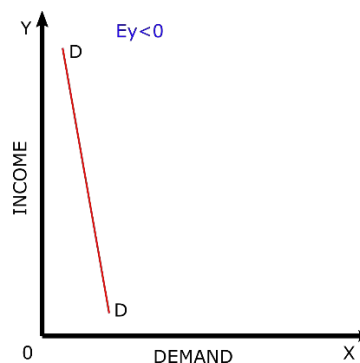
If the quantity demanded for a commodity remains constant with any rise or fall in income of the consumer, it is said to be zero income elasticity of demand. In other words, quantity is essentially fixed. For example: In case of basic necessary goods such as salt, kerosene, match box etc. there is zero income elasticity of demand. Income elasticity co-efficient is equal to zero.



5) Negative Income Elasticity ($E_y<0$)

The income elasticity of demand is negative when there is an inverse relation between income and demand. It means that the demand for a product decreases with increase in consumer's income. The income elasticity of demand is negative for inferior goods and Giffen goods. For example, if the income of a consumer increases, he would prefer to purchase wheat instead of millet. In such a case, the millet would be inferior to wheat for the customer.

Income elasticity co-efficient is negative and less than zero.



Determinants of Income Elasticity

- i. Income elasticity is determined by the nature of commodity. Commodities are generally grouped into necessities, comforts and luxuries. We have seen above that in the case of necessities, $E_y < 1$. In the case of comforts, $E_y = 1$ and in the case of luxuries, $E_y > 1$.
 - ii. Income elasticity of demand depends on the time period. Over the long-run, the consumption patterns of the people may change with changes in income with the result that a luxury today may become a necessity after the lapse of a few years.
 - iii. The demonstration effect also plays an important role in changing the tastes, preferences and choices of the people and hence the income elasticity of demand for different types of goods.
 - iv. The frequency of increase in income also determines income elasticity of demand for goods. If the frequency is greater, income elasticity will be high because there will be a general tendency to buy comforts and luxuries.
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