

Necessities are more insensitive to price changes because consumers continue purchasing these products despite increase in price. Conversely, price increase of a commodity that considered less of a necessity will deter more consumers because the opportunity cost of buying the good will be too high. Such a good is said to be elastic.

Mathematical definition

Given two variables, x and y, their elasticity will be as bellow:

$$\xi_{x,y} = \frac{\frac{\delta \ln x}{\delta \ln y}}{\frac{\delta x}{\delta y} \cdot \frac{y}{x}}$$

Price elasticity of demand

Simply defined, it's the ratio of percentage change in quantity demanded to the percentage in price.

Mathematically,

$$\xi_p = \frac{\frac{\delta \ln Q_d}{\delta \ln P}}{\frac{\delta Q_d}{\delta P} \cdot \frac{P}{Q}}$$

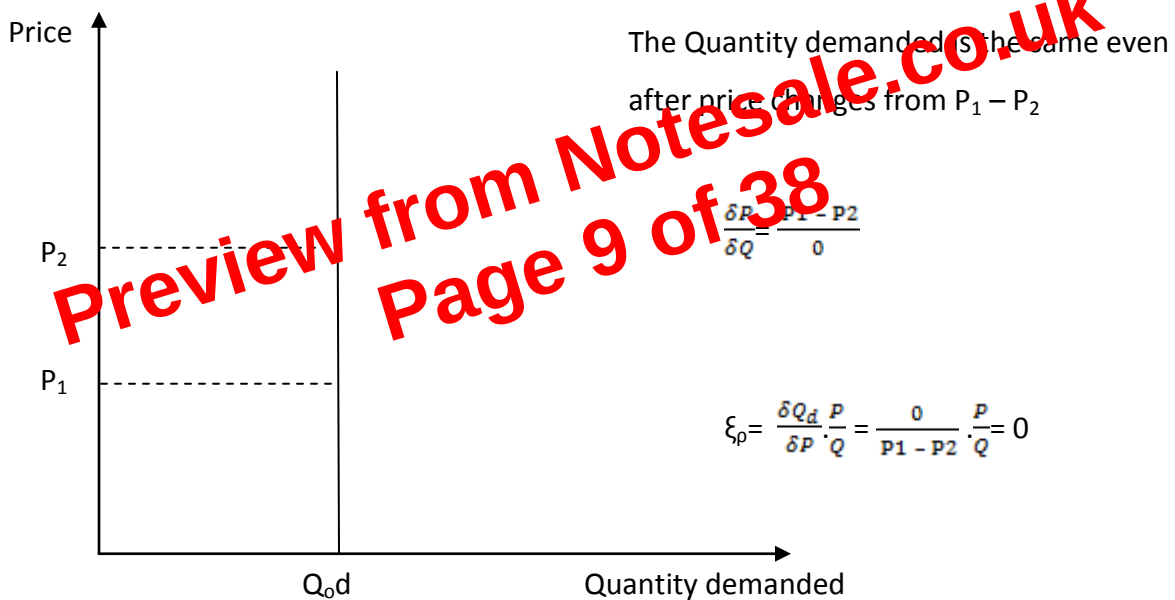
where,

ξ_p = Price elasticity of demand P = own price of a good or service

Ln = natural logarithm Qd = quantity demanded

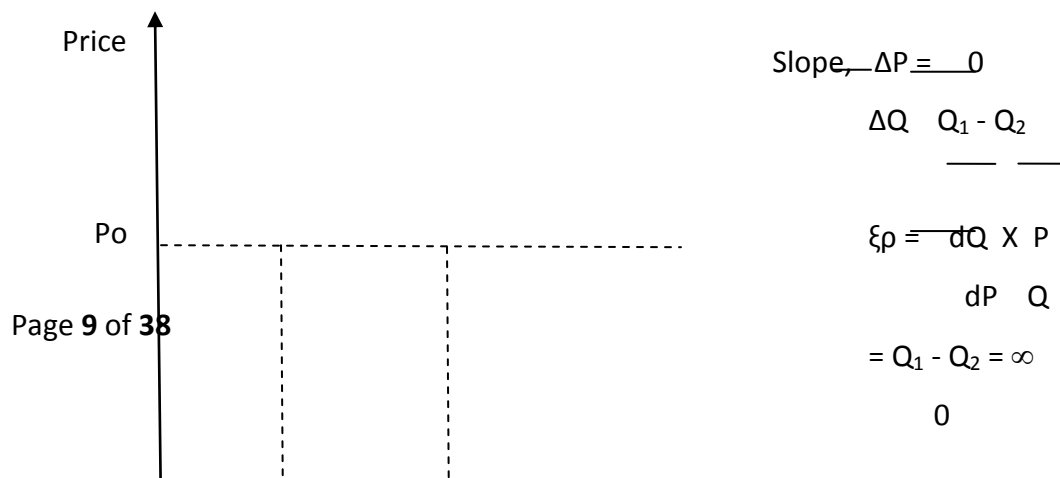
Perfect inelasticity

When the quantity demanded of a good a service doesn't respond at all to a change in price, the percentage change in quantity demanded is zero. This implies that its elasticity is zero and this is said to be inelastic.



Perfect elasticity (infinite elasticity)

With perfect elasticity a small increase in price causes quantity demanded to drop immediately to zero. In reality, perfect elasticity's are rare but an example that closely approximates perfect elastic behaviour are agricultural goods which, due to high supply of the same, farmers aren't able to change more than the current market price for their produce.



TOPIC 3 CONSUMER THEORY

Is a theory that attempts to link personal preferences, consumption, and the demand curve . Implicitly, economists assume that anything purchased will be consumed, unless the purchase is for a productive activity.

Is composed of two fundamental theories: Cardinal utility and Ordinal Utility

Cardinal utility – Postulates that individual consumers are able to measure their respective utilities(Or preferences) using units of measurements called “**utils**”. Thus, given two goods, say X & Y, If good X is worth five utils and good Y worth 10 utils, the consumer will be deemed to prefer Y over X.

Ordinal utility –Provides a more realistic assessment of the concept of utility. Postulates that utility cannot be measured empirically, but rather, consumers’ preferences can be ranked. Thus, given two bundles of good X and Y, a consumer may

- Prefer X to Y
- Prefer Y to X
- Be indifferent to both goods

Total Utility – is defined as the total amount of satisfaction derived from the consumption of a good or service.

Marginal Utility – is the additional satisfaction gained by the consumption of one more unit of a good or service.

Law of Diminishing Marginal Utility

Is a principle in consumer theory where the more of any one good or service in a given period the less the satisfaction generated by consuming each additional unit of the same good or service.

Consider the following hypothetical example showing the relationship between total and marginal utility. Mwangi loves Mugithi music by Mike Rua. Dimples, who in Nakuru, plays Mugithi music 7 days a week. The following schedule shows the utility he derives from attending Mike Ra’s sessions as he goes to Dimples more and more frequently.

Trips to Dimples	TU	MU
1	12	12
2	22	10
3	28	6
4	32	4
5	34	2
6	34	0

According to the schedule above, Mwangi’s first visit to dimples he generates 12 utils.

When he goes back to his 2nd visit, he enjoys it but not as much as the 1st visit. This can be seen by the MU dropping from 12 to 10. TU increases up to Mwangi’s declining progressively is now at zero.

In general, utility maximizing consumers spread out their expenditures until the following conditions hold.

Given two goods, x and y, consumers spread out their expenditure until the maximum utility of x over the price of x = maximum utility of y over the price of y. This is known as the utility maximizing rule.

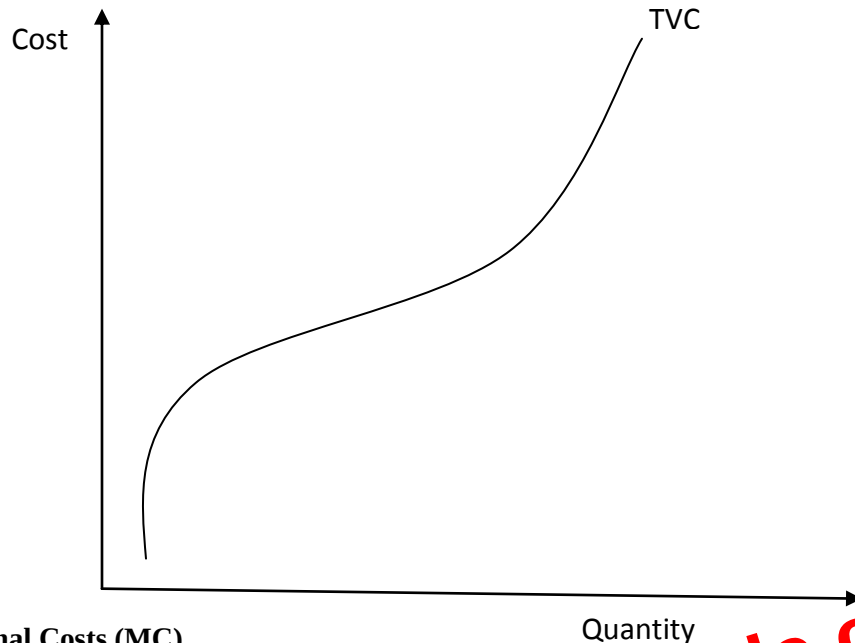
$$\text{i.e. } \frac{MU_x}{P_x} = \frac{MU_y}{P_y}$$

Assumptions of Consumer Preference Theory

1. Preferences are complete

Given two bundles of goods X_1 and X_2 , a consumer is able to unambiguously make the following preferences;

The shape of a TVC curve reflects increasing marginal returns at small quantities and decreasing marginal return at large quantities.



Marginal Costs (MC)

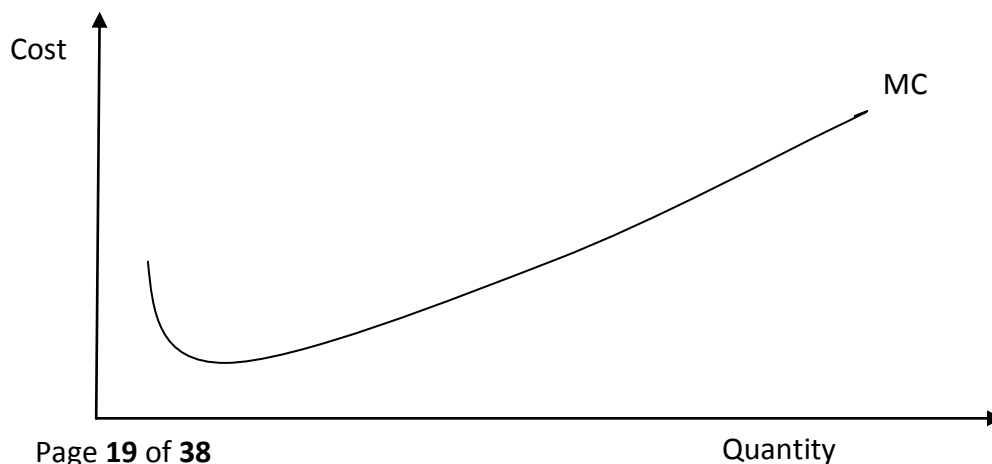
This is perhaps the most important of all costs concepts – marginal cost is defined as the increase in the total cost that result from the production of one more unit of output.

Marginal cost reflects changes in variable cost. This is because as in variable cost, marginal cost varies in different levels of output.

Derivation of Marginal Cost

Consider the production schedule given below:

Quantity	Total variable Cost	Marginal Cost
0	0	
1	12	12 (12 – 0)
2	20	8 (20 -12)
3	27	7 (27 - 20)
4	33	6 (33 - 27)
5	36	3 (36 - 33)



TOPIC 6 MARKET STRUCTURES

Definition:

These are the interconnected characteristics of a market. These include:

- The number and relative strength of buyers and sellers
- The degree of connection amongst buyers and sellers
- The level and forms of competition within markets
- The extent of product differentiation
- The ease of entry into and exit from the market

Market Power – is the ability of a firm or an industry to raise prices without losing all the quantity demanded to their goods and services.

Types of market structures

1. Perfect Competition Market

This is a market structure characterized by the presence of many buyers and sellers such that none of them is able to influence price.

2. Oligopoly Market

Is a market structure characterized by several large sellers who have some level of influence over the market price.

3. Monopoly Market

This is a market structure characterized by a single seller selling a good or service for which there are no close substitutes. The seller exercises considerable control over the supply of goods and services and its price e.g. KPLC

4. Monopolistic Competition Market

This is a market structure similar to perfect competition in many respects. The main difference being that while in perfect competition, the firm sells homogeneous goods, in a monopolistic competition the goods or services sold are differentiated e.g. restaurants.

1. PERFECT COMPETITION

Perfectly competitive markets are characterized by the following attributes:

- i. There are infinite number of buyers and sellers such that none is able to influence the market price of a good or service.
- ii. Firms in perfectly competitive markets (PCM) are “price takers”. They offer to sell their good/service at the given market price. This is represented by the horizontal demand curve characteristic of PCM. The market price is strictly determined by forces of supply and demand. The sole objective for PC firm is profit maximization
- iii. There are no barriers of entry and exit from the market.
- iv. Firms in perfect competition market sell homogeneous products such that no consumer preference can be inferred between products sold by one firm from those sold by another
- v. There exists perfect information in perfect competition market, i.e. buyers and sellers all have the same information in regarding the price, quality and availability of a good or service.

In reality, no market satisfies all the conditions of a perfectly competitive market. However some markets closely approximate the same, examples include:

- Financial markets – stock exchange
- Agricultural markets
- Internet e.g. eBay

Perfectly competitive markets are considered to be the most efficient from a market structure. This is because perfectly competitive market results in:

1. Efficient allocation of resources among firms
2. Efficient distribution of goods and services amongst households

At AE_2 , production is at full employment if planned aggregate expenditure increases beyond Y_F , the curve will shift to say AE .

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6. The GDP does not measure economic well being. This has resulted in alternative indices such as the gross national happiness, used to measure the satisfaction of the population in regard to the respective country's economic performance.
7. National income does not account for negative externalities like pollution.

FISCAL AND MONETARY POLICY

Fiscal Policy

Fiscal policy can be as the use of government spending and revenue collection to influence the productive activities in the economy.

It is distinguished from the other main type of economic policy i.e. the monetary policy which attempts to stabilize the economy by controlling interest rates and the supply of money.

The two main instruments of fiscal policy are:

- Government spending
- Taxation

Government expenditure is funded in the following ways:

- i. Taxation
- ii. Seignorage (printing money)
- iii. Borrowing from individuals or firms
- iv. Through consumption of fiscal reserves
- v. Through sell of assets

Fiscal policy can either be neutral expansionary or contractionary. A neutral fiscal policy implies a balanced budget. This is where government expenditure equals the tax revenue collected.

Government spending is fully funded by tax revenue and overall the budget outcomes have a neutral effect on the level of the economy.

Expansionary fiscal policy involves a net increase in government spending. This is achieved either through increase in government spending, a fall in taxation revenue or a combination of the two. The effect of an expansionary fiscal policy is a larger budget deficit, a smaller budget surplus than the government previously had.

A contractionary fiscal policy occurs when net government spending is reduced either through higher taxation revenue, reduced government spending or a combination of the two. The effect of a contractionary fiscal policy is a lower budget deficit or a larger surplus than the government previously had. Contractionary fiscal policy is usually associated in surplus.