THE SUBJECT MATTER OF ECONOMICS

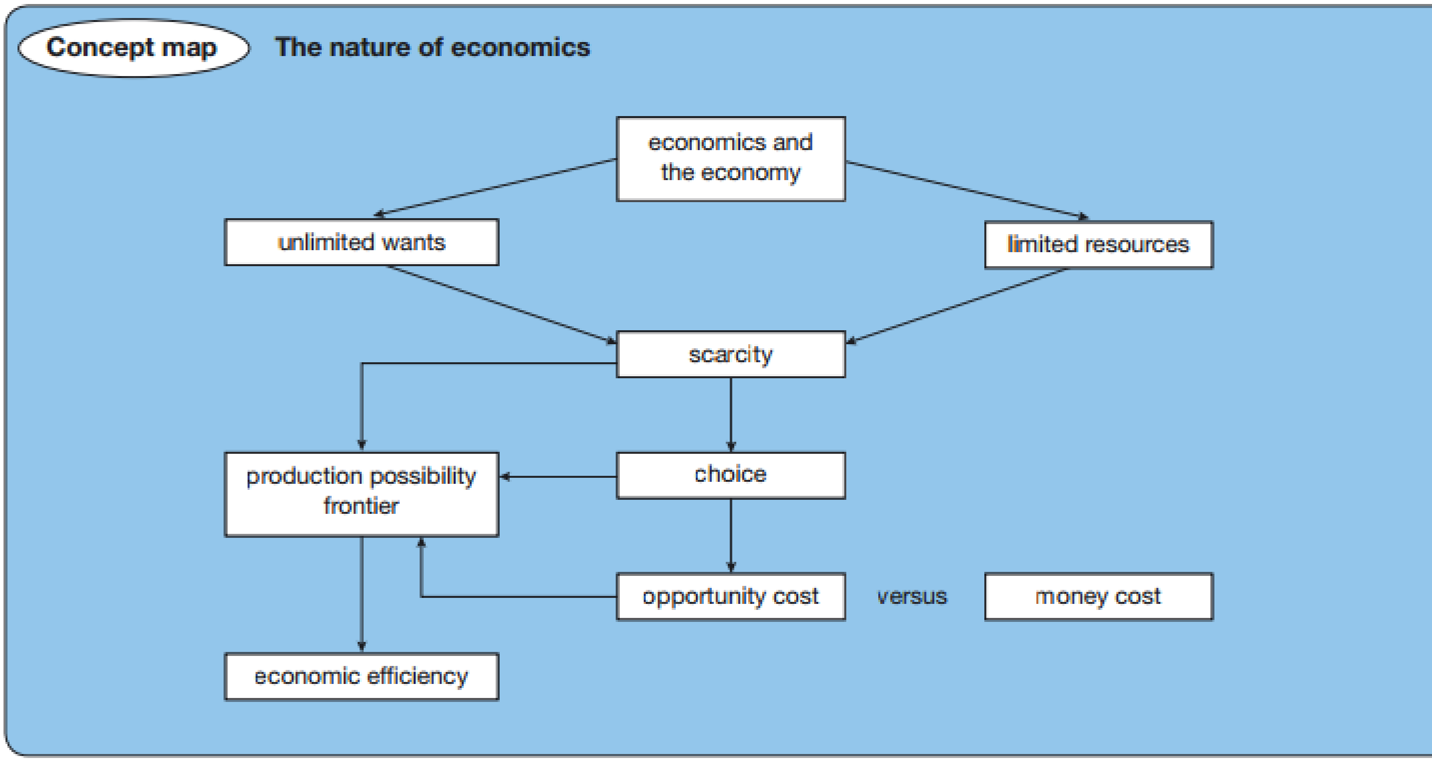
Generally, the subject matter tells us about what we study in Economics. However for the sake of conveniences, economics is concerned with the following:

1. It is concerned with how human being earns their living through exchange i.e. it is concerned with how man employs scarce resources to satisfy material wants.

2. It deals with production, distribution, exchange and consumption of goods and services.

3. It also deals with human activities which involve selling and buying. It doesn't deal with goods and services that man produces for the sake of self-satisfaction.

These goods and services must have exchange value a part from satisfying human wants.



1.1 ECONOMICS TERMINOLOGIES:-

Distribution: is a process of rewarding or making payment to the factors of production such as Land -Rent, Labour- Wages, capital-Interest and Entrepreneur-Profits.

Wants : this refers to human desires.

Features of Humans wants:

1. -Human wants are unlimited,

-The resources used to satisfy the wants are (limited in number) scarce.

-Human wants can be satisfied by alternative means, E.g. Thirsty can be quenched by drinking water or soft drinks.

-Human wants are felt frequently such as food, water

-Human wants are complementary.eg; Driving is satisfied by car and fuel.

Needs:Are those necessary things when you loose it can cause death(Basics needs such as food,shelter and clothes).

Economics Resources:

Refers to the inputs which are needed to produce goods and services. They are also known as the factors of production or means of production. The factors of production are things which are necessary for production. The factors of production may include;

1. **Natural resources** such as land and **man-made resources** such as capital.
2. **Human resources** are such as labor and entrepreneurship.

Refers to the total expenditure by households or final users on goods and services which yield utility in the current period OR

Is the process of using goods and services to satisfy wants.

Are things that are produced by the factors of production like land, labor, capital e.t.c. and are consumed by man to satisfy his wants. It involves goods and services.

Production: Is a creation of goods and services for personal consumption or use.
OR
Is a process of making goods and provision of services to satisfy people's needs or wants e.g. Giving crops for food, building houses.

Wealth

Refers to the country's stock of resources and goods that can be used to satisfy wants.

A country's wealth consists of stock of resources and goods that can be used to satisfy wants. It includes; machines, buildings, and human skills.

In economics, wealth refers to all goods which possess the following qualities;

1. They must have satisfaction (utility).
2. They must be scarce.
3. They must have value.

4. They are capable of being transferred or exchanged.

Refers to the tangible things which satisfy human wants. Goods are categorized in the following ways;

1. Free goods and Economic goods. Those free goods are provided free by the nature Eg Air, rain, ocean water.
2. Private goods and public goods.
3. Intermediate goods and final goods.

Welfare

Refers to the level of satisfaction that a person or group of people derives from the consumption of goods and services.

WELFARE ECONOMICS: The study of the impact of the pattern of resources allocation on society's well being(or welfare)

Economist are able to judge whether the existing arrangement about

(a)the methods of production
(b)the type and quantity of goods and services produced and consumed
(c)the relative share of goods and service going to each household,are satisfactory.

EFFICIENCY: Pareto efficiency--a situation in which it is not possible to make someone better off without making someone else worse off.

EQUITY:Equity is concerned with the treatment of different individuals or groups in society.

MARKET EQUILIBRIUM:Exist when the price and quantity of a commodity match both consumers and producers.
In this case the quantity demanded and supplied are equal and the market clear.

MARKET DISEQUILIBRIUM:Exist when the price and quantity of commodity fail to match consumers and producers expectation.

Goods: - These are things which can satisfy human wants like clothes, cars, houses etc.

Goods are classified as follows;

Free goods:

These are goods which are provided freely by nature. E.g. Air, sunshine, rainfall, ocean water and forest.

Features of free goods

1. They are not scarce i.e. they are abundant.
2. They are not produced by human effort, hence are provided freely by nature.
3. They are not transferable in terms of its ownership.
4. They lack exchange value.
5. They possess utility

ECONOMIC GOODS

These are the goods produced by human efforts and posses the following qualities;

Quality of Economic Goods

1. They have utility, i.e. ability to satisfy wants/needs.
2. They have exchange value, i.e. they can be bought or sold.

   (iii)They are transferable in terms of ownership from one person to another person.

Thus Economics is concerned with economic goods and not free goods because production in Economics is for exchange for which the economic goods possess value.

1. **Consumer Goods-** These are goods produced for final consumption or use such as food, radio, clothes, furniture etc.
2. **Producer Goods-**These are goods which are produced to assist in the production of other goods. They are also known as capital goods. Producer goods include; machinery, raw material, workshop, building etc.

Perishable Goods : These are goods which can easily be destroyed or spoil like food stuffs e.g., milk, meal, fruits, vegetable etc.

Durable Goods: These are goods which can last or stay for a long period of time without being destroyed or damaged such as buildings, machines, furniture etc.

Private goods: Are goods owned by individuals for example private car, clothes, houses etc.

Public goods: Are goods owned and enjoyed by all individuals in the country. For example; roads, defense etc.

Feature of Public Goods:-Non divisibility i.e., provided in totality to the public.

Non rivalry i.e., there is no competition of consumption. One person can consume extra units without reducing consumption of others.

Intermediate goods:- Are goods in progress e.g. raw material.

Final goods:- Are goods ready for consumption.

Normal Goods:- Are the goods for which their demand increases when the real income of the consumers increases while their demand decreases when income of consumers decreases.

Inferior Goods:- Are goods which the demand of the goods by the consumers decreases when real income increases.

PRODUCTION

Is a creation of goods and services for personal consumption or use.

OR

Economists define production as a process of creating goods and services for exchange i.e for sale in order to satisfy people's needs.

OR

Is a creation of utility. Utility means the level of satisfaction a consumer derives from consuming a certain unit of goods and services.

Economics Activities:

Prof. Marshall defined all activities concerning with the earning and spending income (wealth) such as-; the activities of farmers, labor, shopkeeper, teachers, doctors and advocates. Thus all activities which are done with view to earn income are called **Economic activities**.

NON ECONOMIC ACTIVITIES:

Refers to all activities which do not have the earning of wealth as their nature. E.g. .playing football for health reasons, singing by mothers, teachings by a teacher to his own children, etc.

SCARCITY

Means limited in supply or less than that what is required or needed.

CAUSES OF SCARCITY.

- Limited stock of resources.

  Resources are limited in number therefore it is not possible to produce enough goods and services to satisfy all wants.

- Unlimited wants.

  Wants are unlimited in number therefore resources available cannot produce enough goods and services to satisfy all wants.

- Alternative uses of the available resources.

  E.g, same land can be used to grow beans, rice or other uses such as land for construction of buildings.

Resources are normally scarce and therefore you have to choose from the few alternatives to satisfy the needs.

Producers – chooses what goods to produce.

Consumers – Decides which wants/needs they require.

SCALE OF PREFERENCE:

Is a list of all wants in an order to their importance such that that the most important wants are kept first on the list followed by the less important wants.

OPPORTUNITY COST.

- The true cost of producing an additional of goods or services in their value of goods or services that must be given up to obtain. E.g. A student may have two alternatives of her/his evening time to do homework and the alternative is to play football.
- If he/she chooses to play football, the opportunity cost of playing football is the homework.

EXCHANGE

Refers to the process of selling or buying of goods and services to government to guarantee wealth (income).

MORE IMPORTANCE TO WEALTH DEFINITION

The definition gave too much importance of wealth and ignored human welfare and moral values. Because of these weaknesses, Adam smith’s definition of economics could not be accepted.

2. **WELFARE DEFINITION:**

According to Marshall in his book titled "principle of Economics". Defined economics is the study of man in ordinary business of life. It examines that part of individual and social actions which is closely connected with the attainment and the use of material requisites for well being.

The main features of Marshall's definitions are:

1. Economics is a social science and it studies the economic activities of social normal and real man.
2. Wealth is a means while the ends are human welfare i.e. wealth is for man and man not for wealth.
3. The central point in the study of Economics is man's material welfare.

CRITICISM

Strongest attack on Marshall's Definition comes from Prof. Robbins. The main criticisms of Marshall's definition are;

1. Wrong concept of material goods. Economics is not all about the study of material goods. In reality it is not easy to distinguish material things and immaterial things. Economics also studies immaterial goods such as the services of teachers, doctor, advocates, singer etc.
2. Economics has no relationship with the material welfare according to Prof. Robbins. Economics can't be linked with material welfare it is because;

   i. The concept of welfare cannot be defined exactly.

   ii. In economics we study a number of such activities which cannot be regarded goods from welfare point of view E.g. war, production of home etc.

   iii. Economics do not have appropriate scale of measurement by which welfare can be measured.

3. Not a social science.

According to Robbins, Economic is not a social science rather it is a human science.

4. Wrong division of human activities in Economics.

Marshall Division of human activities was also wrong. According to Robbins every activity has main aspects and one of them is economic aspect.

5. Classification – Marshall Definition is classified. There are many categories but the destination between there is not clear Eg ordinary business, social and unsocial, material and immaterial, economic and non-Economic etc.

Marshall's definition was better than Adam smith's definition yet was rejected after sometimes because of these weaknesses.

Welfare Definition
Lionel Robbins published a book "An Essay on the Nature and Significance of Economic Science" in 1932. According to him, "economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses". The major features of Robbins' definition are as follows:
a) Ends refer to human wants. Human beings have unlimited number of wants.
b) Resources or means, on the other hand, are limited or scarce in supply. There is scarcity of a commodity, if its demand is greater than its supply. In other words, the scarcity of a commodity is to be considered only in relation to its demand.
c) The scarce means are capable of having alternative uses. Hence, anyone will choose the resource that will satisfy his particular want. Thus, economics, according to Robbins, is a science of choice.
Criticism: a) Robbins does not make any distinction between goods conducive to human welfare and goods that are not conducive to human welfare. In the production of rice and alcoholic drink, scarce resources are used. But the production of rice promotes human welfare while production of alcoholic drinks is not conducive to human welfare. However, Robbins concludes that economics is neutral between ends.
b) In economics, we not only study the micro economic aspects like how resources are allocated and how price is determined, but we also study the macro economic aspect like how national income is generated. But, Robbins has reduced economics merely to theory of resource allocation.
c) Robbins definition does not cover the theory of economic growth and development.

SCARCITY DEFINITION.

According to Lionel Robbins and his followers like Stigley, Samuelson, Carnations and many other. Modern Economists defined economics as;

- A science which studies human behavior as a relationship between ends and scarce means which have alternative uses.

FACTS OF ROBBIN'S DEFINITION.

According to Robbin's and his follower Samuelson.

1. Human wants are unlimited.
2. Human wants have alternatives.
3. Resources are scarce.
4. Resources have different importance.

The unlimited wants and the scarcity of the resources give rise to the problem of choice.

Choice refers to the process of making selections among multiple or several alternatives.

CRITICISM OF ROBBIN'S DEFINITION

1. The difference between means and ends is not clear. This definition uses two terms, means and ends which have not been clearly distinguished.
2. Neutral towards ends.

   The definition regards economics is neutral towards ends if it is occupied then used. The study or economics would be of no use of which it would not remain a fruitfully science. Thus economist is a tool maker as well as toll users.

3. Reduced merely to valuation theory.

   Robbins definition has reduced Economics merely to evaluation theory. This does not taken into account. The problem of macro economics and growth.

4. Problem of abundance.

   All economic problems do not arise from scarcity. Some of them may also arise from abundance, such as the problem of over production etc.

   Hence in simple words we can say Economics is a science that studies human behavior as a relationship between ends and scarce means which have alternative uses.

i) Wealth Definition
Adam smith (1723 -1790), in his book "An Inquiry into Nature and Causes of Wealth of Nations" (1776) defined economics as the science of wealth. He explained how a nation's wealth is created. He considered that the individual in the society wants to promote only his own gain and in this, he is led by an "invisible hand" to promote the interests of the society though he has no real intention to promote the society's interests.
Criticism:Smith defined economics only in terms of wealth and not in terms of human welfare. Ruskin and Carlyle condemned economics as a 'dismal science', as it taught selfishness which was against ethics. However, now, wealth is considered only to be a mean to end, the end being the human welfare. Hence, wealth definition was rejected and the emphasis was shifted from 'wealth' to 'welfare'.

ii) Growth Definition
Prof. Paul Samuelson defined economics as "the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among

various people and groups of society".
The major implications of this definition are as follows:
a) Samuelson has made his definition dynamic by including the element of time in it. Therefore, it covers the theory of economic growth.
b) Samuelson stressed the problem of scarcity of means in relation to unlimited ends. Not only the means are scarce, but they could also be put to alternative uses.
c) The definition covers various aspects like production, distribution and consumption.
Of all the definitions discussed above, the 'growth' definition stated by Samuelson appears to be the most satisfactory. However, in modern economics, the subject matter of economics is divided into main parts, viz., i) Micro Economics and ii) Macro Economics.
Economics is, therefore, rightly considered as the study of allocation of scarce resources (in relation to unlimited ends) and of determinants of income, output, employment and economic growth.

GENERAL MEANING OF ECONOMICS.

Is a social science which studies how societies allocate scarce resources in production of goods and services to satisfy their needs.

IMPORTANCE OF STUDYING ECONOMICS.

1. It helps to build up a body of principle and furnish the economist with lots of economic analyzing that will enable students to understand current economic problem and to see the economics consequence of perusing a particular time of policy.
2. It helps in interpreting economic issues rising from government and non-government policies.
3. It helps in managing personal life and that of the society.
4. It helps to distinguish various economic systems such as capitalist, socialist and mixed economy.
5. It explains economic theories and shows how they apply to a particular economy. Economic theories are simplified representation of the real word that we use to understand, explain and predict economic phenomena in the real world. They can be inform of statements or graphs.
6. Helps in discussion and analysis of international economic issues and dealing.
7. It helps students to use the terminologies, language and symbolism of the subject clearly and communicate economic ideals.

BRANCHES OF ECONOMICS.

There are two main branches of Economics.

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1. Micro-economics
2. Macro-economics.

MICRO ECONOMICS.

Micro means small. Micro economics refers to a branch of economics which studies the behavior of individual economic units such as; price determination of a commodity (goods), behavior of consumers or producers (firms) etc.

Micro economics is also termed as the price theory. Micro economics also deals with;

- Price determination in the market.
- How a product is made by the firm (individual) producer.
- How income is distributed.
- How wages, interest, rent and profits are determined.

IMPORTANCE OF MICRO ECONOMICS

1. Helps in explaining the functioning of the free enterprises economy. The working of capital economy is based on micro economics.
2. It tells us how consumers and producers make decisions on how to allocate their limited (scarce) resources. They use the marginal approach to determine the part they will gain more.
3. It helps in determination of prices of various commodities in the market.
4. It explains the conditions for efficiency for both production and consumption.

MACRO ECONOMICS.

Macro means large. Macro economics analyzes economic problems on national or aggregate basis. Macro economics is also known as the income theory. Therefore Macro economics is a branch of economics which deals with the studies of aggregation and overall performance of the economy such as;

- Total consumption.
- Total employment.
- National income.
- General Price level.
- Consumer price index (CPI).
- Total savings etc.

It addresses issues like the relationship between inflation and unemployment, effects of deficit in the balance of payment, relationship between money supply and general price level.

Thus for comprehensive economic analyze both micro and macro approaches must be adapted.

IMPORTANCE OF MACRO ECONOMICS.

- Useful in understanding the functions of complicated economic systems such as the Command economy system.
- Useful in the formulation of various economics polices in the country such as the taxation policy.
- It helps to provide solutions to urgent economic problems facing the economy such inflation, unemployment.

DEVELOPMENT OF ECONOMICS

It studies the principles and problems concerning economic development of the country.

ECONOMIC LAWS.

There are economic statements which show the relationship between economic variables. It shows that a certain thing happens under given economic conditions. It regulates relationship in main economic activities of production, exchange, consumption and distribution.

Lionel Robbins defined economic laws as a statement of uniformity which govern human behavior concerning utilization of resources for achieving of unlimited ends. Example of economic laws is laws of demand and supply.

Therefore economic laws shows tendencies of what happens under given economic conditions thus they express people’s reaction to economic forces Eg In the example about the laws of demand show that consumer tend to buy more as the price of commodity decreases and suppliers tend to supply more when the price of commodity increase.

Sometimes people believe contrary to the laws e.g under given conditions of exceptional demand people with low income demand more inferior goods at higher price that at lower price.

CHARACTERISTICS OF ECONOMIC LAWS.

1. They are not static i.e. they change with time and economic conditions.
2. They are hypothetical i.e. they are based on assumptions.

CLASSIFICATION OF ECONOMIC LAWS.

1. **Pure and Natural laws**.

   These emerged purely from interaction of economic variables such as price and quantity demanded as supply scarcity and choice etc.

These laws can operate in all economic systems. E.g. the laws of demand and supply and the law of diminishing marginal utility.

2. **Law of super structure (Government or state law).**

   These are laws provided by the government or state to regulate or control economic activities. E.g. law of taxation, law of controlling consumption of certain commodities. Law of stabilizing the economy etc.

3. **Law of specific economic system**.

   These are the laws specific to a certain economic system and they control relationship among the people in the process of production, consumption distribution, exchange once a system is replaced by the new system. E.g of specific laws is;

- Laws of private ownership of means of production.
- Laws of public ownership of major means of production.

General laws.

These are laws which operate in all economic systems whether socialist or capitalist E.g. Demand and supply.

IMPORTANCE OF ECONOMIC LAWS.

1. Guide economic events and serve as a basis for the formulation and evaluation of economic policies Eg the law of demand and supply. Help the tax authority to fix a rate that will not cause a big increase on price.
2. They are useful in planning process ie planner can forecast implication of various plans by using economic laws of what will happen in production if domestic industries are given subsidizing.

FUNDAMENTAL ECONOMIC PROBLEMS.

The main central economic problem is the scarcity of resources in relation to unlimited wants.

There are sources of basic economic problems which exist in societies needed to confident three inter-related questions. These are;

1. **What to produce.**

   It is related with the types (ranges) and quantity of goods to produce. Since resources are scarce, we must choose between different alternative collection of goods and services that may be produced.

It also involves the allocation of resources between different types of goods. For example, consumer goods and producer goods .

The decision to this question is unanswered. Differently under capitalist economy it is answered by price mechanism while in planned socialist t is determined by central planning authority and also by mixed economy.

2. **How to produce.**

   This question arise from the basic economic problem that since resources are scarce in relation to unlimited wants, we need to consider how resources are used that the best outcome may arise.

   The question requires the determination of the method or techniques, the choice of the techniques of production will depend on the Efficiency and the price of factors of production i.e. the cost of production.

3. **For whom to produce.**

   Since we cannot satisfy all the wants of all the population, decisions have to be taken concerning how many of each person's want are to be satisfied i.e. it involves who should get how much. However the distribution will depend on the economic system of socialist, capitalist economic system.

In some economies the deliberate attempt to create policies that re-distributes wealth and income from rich to poor. This could be through the adaption of progressive taxation system.

In other economies there are no such policies and qualities of wealth and income usually based up on inheritance remain extreme.

Answering this question moral aspect of decision making become important.

- **Where to produce**.

  The producer has to make decision regarding the place where the firm has to be located. The location of the firm depends on the;-

1. Availability of the means of transport and communication, power and water supply.
2. Supply of labor.
3. Availability of banks, hotels, schools, and hospitals etc.

- **When to produce**.

  A producer must also decide the right time to produce a given commodity.

- **How much to produce**.

It relates to mankind decision regarding the quantity or amount of the commodity to be produced.

The answer to the above problem is determined by different economic systems.

- In **socialist economy**, the use of central planning authority.
- In **capitalist** economy, the use of price mechanism.
- In **mixed** economy, the use of both methods.

SCARCITY AND CHOICE

Other decisions on economic problems centers round the two basic concepts, scarcity is useful to understand them more clearly.

Scarcity: - The scarcity implies limitlessness in supply therefore; when we say the resources of a country are scarce it means that the resources are limited in supply.

A resource is said to be scarce when there isn't enough of it to satisfy all the people's wants, but if;

- Economic goods and services are scarce in the sense that is not available in sufficient of zero prices. If something is so abundant that we can have all we want without paying for it is not a scarce commodity e.g. Air under ordinary circumstance is not scarce.
- Economic goods and services are scarce relatively to the people's desires for them.e.g. There are more good bananas than bad banana, but it is good bananas which are scarce because it is the good one which people desire to consume.
- The scarcity of economic goods and services arises from scarcity of resources such as land, labor, capital and entrepreneur used to produce them.

NOTE

Regarding the problem of scarcity we must be very clear in our minds that it is found in all countries whether it may be poor or rich country. However the form scarcity here is used in relative sense of resources is limited in relation to man's wants. In this sense if it is true for a rich and developed country thus scarcity is a fundamental problem and universal in nature.

Because of scarcity in resources, we must choose from among the many wants and whenever we choose we must force go satisfying. Some economists defined economics as a study of how people choose to use their scarce resources in attempt to satisfy their unlimited wants. Since there are insufficient productive resources in the world, therefore man is left to find the solution to that problem and the first option is to economize, that is to make the best and efficient use of the resources available without any wastage.

A SCALE OF PREFERENCE

Is a sort of list of all unsatisfied wants arranged in the order of importance. In the scale of preference the most pressing wants are placed on top while the less pressing wants are placed at the bottom.

OPPORTUNITY COST

If has been observed that in reality, scarcity leads to the problem of choice and once we choose we must go without others.

Satisfaction of one's must involve foregoing something else. Therefore the opportunity cost of real cost of satisfying any wants is the alternative that has to be foregone in order to do so.

That is the real cost of satisfying anything in the alternative that has to be forgone. In simple language opportunity cost is the sacrificed alternative in deciding to do one thing and not the other.

- Human wants are unlimited while the means to satisfy them are limited. Therefore one has to choose what want to satisfy because one cannot satisfy all wants due to scarcity of resources.

  Usually one satisfies the most pressing wants before satisfying the less pressing wants.

  The sacrificed goods are thus the real cost or opportunity cost of satisfying the wants that are sacrificed.

  E.g. If you had to choose between leisure and work, sacrificing leisure then the real cost or opportunity cost is very useful in the process of planning especially in the question of resources allocation. When we choose to allocate more resources to production of consumer goods we are necessarily forced to the reduce the allocation of resources to the production of producer/ investment goods.

PRODUCTION POSSIBILITY FRONTIER OR CURVE (PPF OR PPC)

A **production possibility curve** is a curve representing all possible combinations of total output that could be produced by the economy when its resources were fully and efficiently utilized under a given state of technology.

The production possibility curve is also known to other economist as **production possibility *frontier or Boundary.***

The concept of production possibility curve helps to explain the concept of scarcity and opportunity cost.

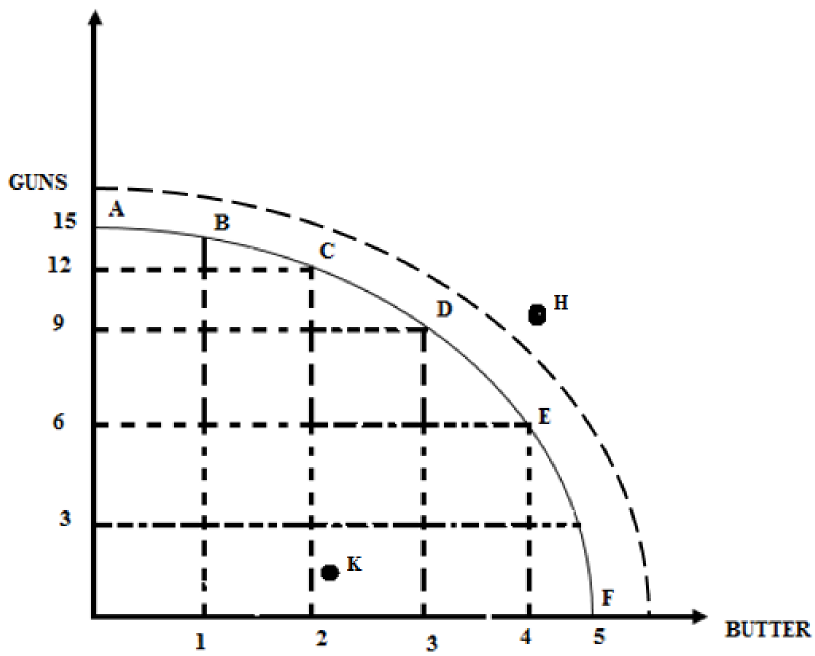
The following are the assumptions of the production possibility curve;

1. The resources are fully and efficiently utilized.
2. There is a constant state of technology.
3. Only two commodities are being produced.
4. The amount of resources is fixed.

Given that the resources and technology are fixed, we can produce more of every commodity from the resources which can be used to produce more of another commodity.

In the production possibility curve, since the resources are scarce, we are forced to choose between production of capital goods and consumer goods. Sacrificing the production of consumer goods. Thus the opportunity cost of more capital goods is the consumer goods that we have to sacrifice.

GRAPH OF PRODUCTION POSSIBILITY CURVE



From the graph, we learn that the shape of the production possibility curve is concave to the origin. Because there must be the decrease in output of guns in order to add more unit of butter e.g. To produce one unit of butter we have to foregot one unit of gun i.e from A to B.

This is called the marginal rate of technique substitution of butter for gun and it goes on increasing.

If the economy devoted all its resources to the production of gun it can produce 15 thousand guns but the production of butter will be zero.

Therefore if we decide to produce 1unit of butter we have to produce 14 units of guns.

From the graph therefore we learn that if butter we want to produce more butter we have to reduce the output of guns and vice verse i.e. we can transform guns into butter or butter into guns.

The point on the boundary of PPC i.e. **A, B, C, D, E** and **F** represents the combination of goods that can be produced using the country's available resources and technology.

Any point inside the boundary say **K** is one from the diagram it shows inefficiency of which may be under utilization or unemployment of the countries resources.

From point **A** to point **F,** it indicates the increase in the production capacity of the economy. The new graph tells us that economy can now produce large quantity of output.

Point **H** on the graph indicates unattained point of which it is outside the PPC .point **K** will be attained when the economy increases its production leading to the shift of the PPC from its original position to point **K**.

- How choice, opportunity cost and scarcity are shown on the PPC.

Choice is indicated by selecting any point on the PPF. When resources are fully utilized i.e. **a,b, c,d,e** and **f**.

Opportunity cost is indicated by movement along the PPF i.e. **a, b, c, d, e** and **f.** e.g. The opportunity cost of producing 15 units of guns is the 0 unit of butter that you forego at full employment of the resources.

Scarcity is indicated by point **H** which has not been attained. It will depend on the expansion of the production in the economy.

In order to move the economy from the current production possibility curve to the outer production possibility curve, the economy has to;-

1. Increase in the stock of its resources.i.e. To increase the quality of labor, land, capital and entrepreneurship.
2. Improve the state of the technology to more advanced methods in order to find move output of maximum cost of production of capital.

DIAGRAM FOR INNOVATION OF NEW RESOURCES

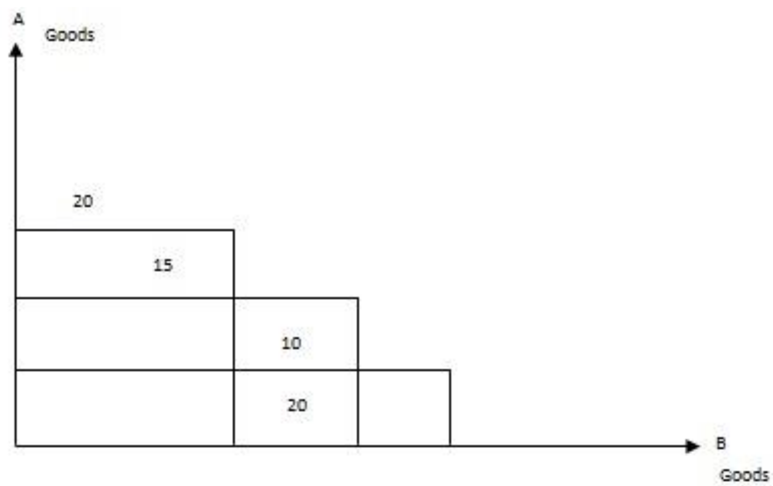
In some other cases the PPC curve tends to shift inwards, this signifies the decline of the economy which may be due to;-

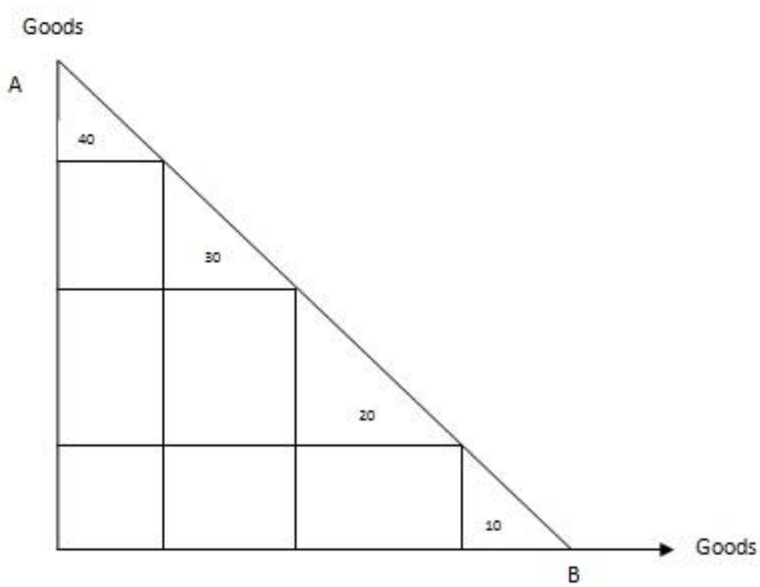
1. Exhaustion of the economy's natural resources such as land.
2. Working population is falling.
3. Technology available was changed.

4. Underemployment of the resources of a country of which some of the resources are left idle.

SHAPES OF PRODUCTION POSSIBILITY CURVE

The graph is concave to the origin due to the law of diminishing return, as resources are transformed from goods A to goods B the extra out of B becomes successively smaller while the amount being sacrificed in A becomes large and large.





Amount sacrificed for one good and gained by the other is constant represented by a straight line.

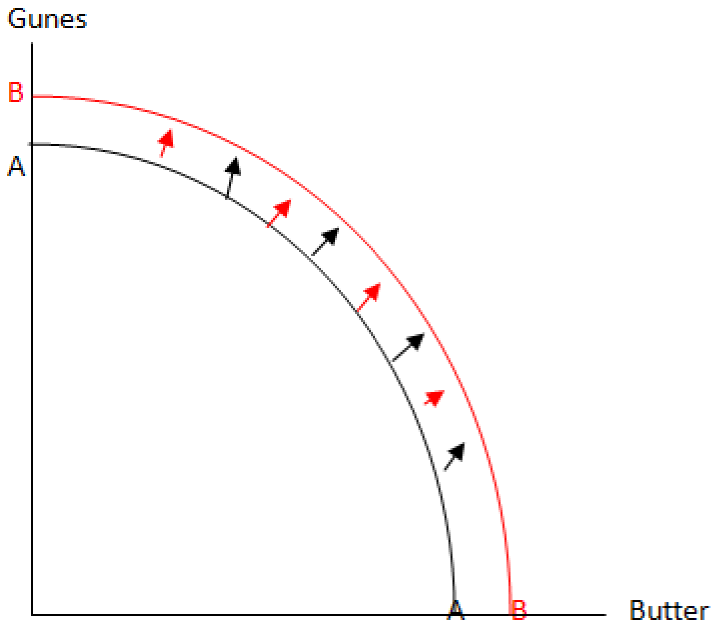
Features of production possibility curve

1. Two commodities involve.
2. There is fixed technology.
3. Full employment and productive efficiency.

4. Fixed resources.
5. Perfect factor substitution.

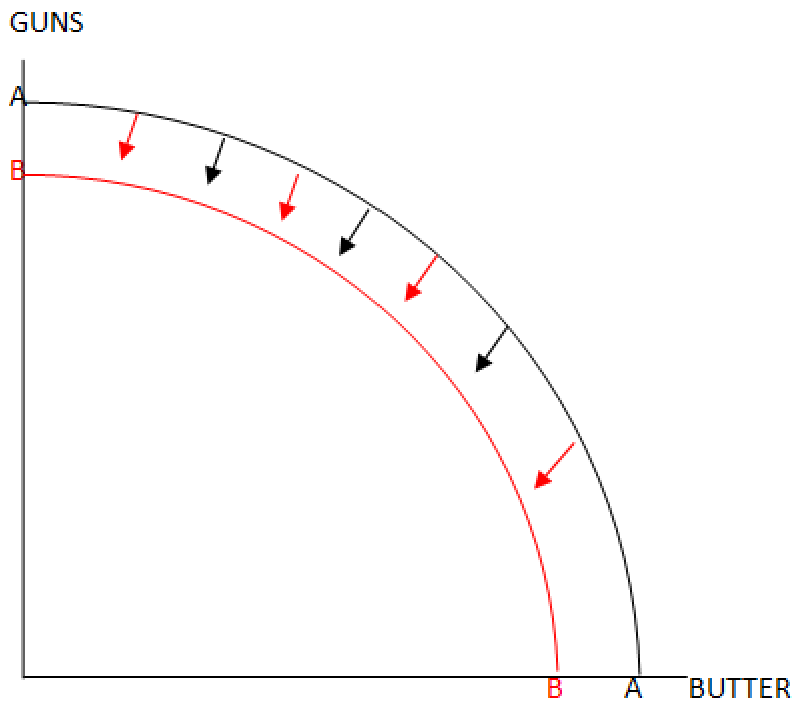
SHIFTS IN PRODUCTION POSSIBILITY CURVES

An economy's production potential is constant changing.The Production possibility curve (ppc) will shift outward to the right because capacity to produce goods and services increases as shown below



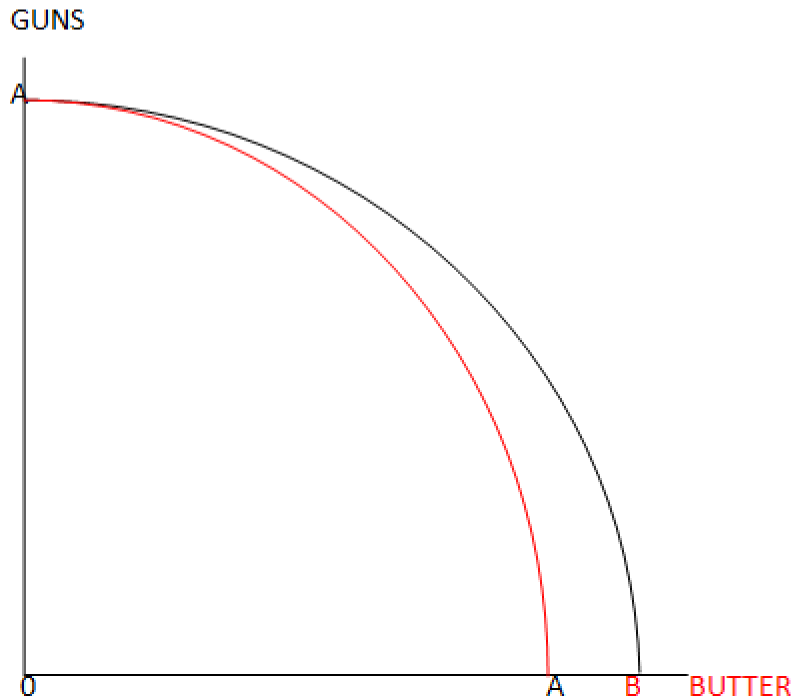
Improvement of goods and services lead to the increase of Quality and Quantity,Labourforce,stock of capital goods (offices,factories,transport network power station and machinery) an increase in technical knowledge and improvement in training.

PPC INWARD TO THE LEFT as shown below:-



PPC curve shift to the left because economy's production potential declines.This could occur due to the war or natural disaster which reduces a countries resources.

A CHANGES IN THE SLOPE OF THE PRODUCTION POSSIBILITY CURVE (PPC)



If changes occurred of one type of goods (BUTTER) the slope of the curve will change because of changes of quality or quantity of resources
example improvement of production technique in manufacture.

ECONOMICS RELATED TO OTHER SOCIAL SCIENCE

The economist of today is indebted to the historian of the part history. I.e. in this sense that they supplied material of the formulation of economics conclusion.

1. **ECONOMICS AND HISTORY**

- The economist of today indebted to the historian of the part history i.e. the sense that they supplied material of the formulation of economics conclusion.
- Economists also can verify the correction of the old theory by comparing facts of the past and present.
- Economists like Malthus used history methods to explain his theory of production.
- No historian can have a rough knowledge of history of a country if he does not study its economic condition from this sense. Therefore economics without history has no root and without economics it has no fruits.

2. **ECONOMICS AND PSYCHOLOGY**

- Psychology is that science of mind that it does with mental phenomena. Economics is the study of certain types of human behavior. Since behavior is conditioned by the mind, economics is related to psychology.
- Wants, efforts and satisfactions which force the subject matter of economics are also mental phenomena e.g. The law of demand and supply are based on human behavior /psychology.

3**. ECONOMICS AND ETHICS**

Ethics is a science proper or right conductor. It prescribes the moral code of behavior and it is concerned with what might be?

The ethical standard of the people of a country is influenced by some extended economic condition, for example; the decision on which taxes to impose and which scheme to spend government money deceive their inspiration from morals of the society.

Economic as system that institutional arrangement.

4. **ECONOMIC SYSTEM**

Economic system is that an institutional arranged where by human and natural resources of an economy cooperate with each other to produce goods and service.

OR

Is a set of institution which a society decides what, how and for whom to produce. It is a framework theory which a society allocates scarce resources among competition uses or it is an allocate mechanism of the society.

OBJECTIVES / FUNCTIONS OF AN ECONOMIC SYSTEM

1. To distribute output among the members of the societies and it must answer the question of who gets from the production of output.
2. Allocation of the resources i.e. every system is responsible for the allocation of resources for production of goods and services.
3. To provide maintenance and expansion of capital goods. Every system must expand capital goods.
4. To adjust production and consumption i.e. to make sure production does not exceed consumption and vice verse.
5. To make social choice i.e. to decide on behalf of the government what kind of goods and services to produce.

TYPES OF ECONOMIC SYSTEM

There are three main types of economics system;-

1. Socialist economic system.
2. Capitalist economic system.
3. Mixed economic system.

SOCIALIST ECONOMIC SYSTEM

Command or socialist economic system is a type of economic system in which all major means of production are owned by the state.

FEATURES OF THE SOCIALIST OR COMMAND ECONOMY

1. Collective ownership.

   All major means of production such as factories, banks, schools hospital, and farms e.t.c are owned by state.

2. All economic decisions are made by the state.

   Economic decisions about what to produce, how to produce and to whom to produce are made by the country planning authority.

3. Exploitation is minimized and classes are not in extent.

   Profit is shared equally among the members and classes do not exist because wealth in the socialist economy is owned equally by all members.

4. Lack of freedom.

   In command economy producers are not free to make decisions on the allocation of scarce resources. What is to be produced is determined by the state consumers; likewise producers are not free on what goods and services to produce to the consumers.

5. There is equality among the members in a command economy. Majority of people have access to the national output as the state ensures equality in the distribution of wealth.
6. Low quantity and quality of outputs due to lack of competition.
7. Production is mainly gearing at maximizing utility of the society.

ADVANTAGES OF COMMAND ECONOMIC SYSTEM

1. It promotes welfare of the majority.

Under this system the government ensures achievement of minimum standard of living for the members of the society by using different approaches like;- provision of the free social subsidies etc.

2. Wastage of resources is minimized.

   Proper planning on the allocation of resources ensures efficiency and full utilization of the resources.

3. Greater ability to tackle externalizes i.e. environmental pollution should be tackled into account when deciding up on the patterns of production. Command economy can easily deal with harmful effects of production activities.
4. There is no exploitation between people hence there is harmonious relationship between them.
5. The system is able to minimize inequalities in the distribution of income and wealth unlike the market economy.
6. Economic and social crises can be avoided. Since a command economy is planned, the government is able to control various macro-economics variables like money supply, investment, consumption, expenditure, tax etc.

   This economic crisis such as inflation, recession, depression, unemployment, e.t.c can be avoided.

DISADVANTAGES OF COMMAND ECONOMIC SYSTEM

1. Lack of freedom of choice.

Under this system, freedom by producers and consumers over what to consume and produce are very limited.

2. Discourage individual efforts or ineffectiveness to work due to lack of private gains.

3.Inefficiency in production the system is characterized in efficiency due to lack of competition low technology.bureaucratic decisions, corruption, poor planning, too much protectionism to domestic industries
etc.

4. Information cost of gathering information about what, how, for whom to produce is likely to be very high as it requires experts, planners, administrators and engineers etc.

5. Difficult in estimating demand without price sign us to estimate existing and future pattern of demand for goods and services becomes difficult.

NB; socialism is still one of the economic system that today is practiced in Cuba, North Korea and China.

II. CAPITALIST ECONOMIC SYSTEM

The system is also known as market economy, unplanned or free enterprise economy. Capitalist economic system refers to the type of economic system in which all major means of production are owned by individuals and privates companies, with little government intervention. Examples of the countries which practice this system are USA, UK, Germany, France etc.

FEATURES OF CAPITALIST SYSTEM

1. There is private ownership of the major means of production such as land and capital.
2. There is freedom of choice. That is producers and consumers can make decisions on what, where and for whom to produce and consume.
3. Production is aimed at profit maximization i.e. for self interest resources.
4. Reliance and price mechanism as a means of allocating resources. Under capitalist economy all problems of what is to be produced where to produce and for whom to produce are answered by the price mechanism.
5. There is limited role by the government.i.e the government has little intervention over the allocation of the economic resources.
6. Competition. Under capitalist economy there is free entry of firms in production. These firms compete for resources and market. Such competition results to the increase in efficiency in production.
7. There is existence of classes. Under this system the society is divided into classes. That is the class of haves and have not i.e. the haves are those who own the major means of production and they have not are those who do not own the major means of production.

ADVANTAGES OF CAPITALIST ECONOMIC SYSTEM

1. Greater freedom of choice (consumer sovereignty).

   This means that consumers are seeking to maximize their utilities, having the freedom to make choices from wider range of goods and services.

2. Competition may result into the increased efficiency in production i.e. to produce goods of high quality to win the competition.
3. Low burden to the government.

   In this system, the government takes very few responsibilities in the provision of essential services.

4. High private initiatives. There are high motives to produce by private producers because of private profit, freedom of ownership and freedom of production.
5. Proper allocation of the resources.

   Price mechanism eliminates possible in is allocation of resources as producers use their resources to produce only goods wanted by the societies or consumers, unlike in the socialist economy, where production of goods produced may not be wanted by the people due to poor planning.

DISADVANTAGES OF CAPITALIST ECONOMIC SYSTEM

1. Exploitation is dominant.

   Poor people are de-private of all means of survival and are forced to sell their labor power to the capitalists who exploit them by paying them with low wages.

2. It leads to the economic and social crisis.

   The economic system is not planned as the result it is frequently affected by economic instabilities like inflation, depression, over production, unemployment etc.

3. It leads to wastage of resources.

   Extreme competition behaviors of firms results in misapplication of resources, hence overproduction or harmful production etc.

4. If leads to distortion in consumer’s choices. Consumer’s choices may be distorted by persuasive advertising, in which consumers may buy commodities of sub-standard due to the convincing power of the suppliers i.e. through under advertisement.
5. Welfare of the majority is endangered.

   Firms under this system compete to maximize profits. Under profit motives they often use resources to produce luxury goods instead of public goods. E.g. health services, education, e.t.c, which promote the living standard of people.

6. Existence of classes.

That is the rich and poor classes. The classes exist due to unequal access to the major means of production.

MIXED ECONOMIC SYSTEM

Mixed economic system refers to the type of economic system which involves both public and private ownership of the major means of production like capital, land and other related means of production. Therefore decisions on important economic issues involve some forms of planning by private as well as public enterprises and interaction between the government business and labor through market mechanism.

FEATURES OF MIXED ECONOMIC SYSTEM

1. Some resources are owned by individuals and some are owned by government.
2. Decisions regarding production.

The production of commodities is partly made by individuals and partly by the government.

3. There is joint venture in the ownership of business firm. The government tends to have shares with the private investors in running businesses.e.g. TBL in Tanzania.
4. The role of the government is to regulate the private sector to work for national interests and not for their personal interests.
5. There is a system of price mechanism and planning authority. All are important in economic decisions and planning.
6. There is a relative high freedom of choice for both consumers and producers.

ADVANTAGES OF MIXED ECONOMIC SYSTEM

1. The system is effective in controlling market failure, since the price mechanism does not efficiently provide public goods like education, health, road, etc. The government corrects the weaknesses by providing free goods.
2. Control of efficiency in production and wastage in the allocation of resource. The system involves some kind of planning in the case it can control wastage of resources also increase of freedom in allocation of the resources competition which also increases efficiency in production.
3. Classes are minimized as the state take cares of the under privileged by redistributing wealth in the economy.
4. There is wider freedom.

   A private sector is allowed to produce goods and services that give consumers wider range of goods and services to consume unlike in pure socialism.

THE ROLE OF THE GOVERNMENT IN MIXED ECONOMIC SYSTEM

1. To establish the framework of rules and regulations.
2. To re distribution income. That is to reduce the gap between the rich and poor. E.g. high taxation, subsidization etc.
3. To maintain laws and orders in the economy.
4. To promote high rate of economic growth and economic development.
5. To stabilize price in the case of inflation or deflation.
6. To provide public goods such as;-education, health and other related public good

THE TRANSITION PERIOD

Definition: a transition period is the period between any two economic systems such that one system (the old system) is being replaced by another system (the new system).This means that the economic system has not completely collapse yet and the new system is just in the process of being established

It is a period which is characterized by the remnant features of the old economic system and the new features of the new economic system. For example;-before socialism was not well established in Russia element of capitalism were not completely wiped out in the young socialist economy

IMPORTANCE OF THE TRANSITION PERIOD

1. It is the period of making adjustments. That is it is a period when the weakness of the old system should be left out and the good element of the old system should be in the new system
2. It is a period of learning from the experience of other economic system in the past and present in order to determine their weakness and strengths
3. It is the period experimenting on how the new ideas will be introduced and how these ideas will be accepted by the general public
4. It is a period of action and seriousness with the aim of achieving the predetermined goals/objectives
5. The transition period is necessary since it is a period of making the society aware of intended objective change and how these changes will be made.

PRODUCTION

Production is the process of creating utility.

In production there are four types of utilities which are form utility, time utility, place utility and possession utility.

- To the general public**, *production*** refers to the process of making goods either for sale or for direct consumption.e.g.cultivation of maize partly for domestic consumption and other part for sale.
- In economics, ***production*** is the process of making goods for sale. It is also known as indirect production.

Direct production refers to the process of making goods and services for direct consumption or use.

General production involves employing the factors of production by combining them to produce goods and services which aim to satisfying wants.

TYPES OF PRODUCTION

There are two major types of production these are;-

1. Direct production.
2. Indirect production.

A. DIRECT PRODUCTION

Direct production is the type of production carried by a person in order directly to satisfy his or her own wants **or** production for own consumption. It is mainly for subsistence of which the production is very low.

B. INDIRECT PRODUCTION

Indirect production means production is not attempted to satisfy own wants directly except to a very limited extent. The production of goods is aimed for selling.

STAGES OR LEVELS OF PRODUCTION

There are three major levels of production, which are;-

1. Primary production.
2. Secondary production.
3. Tertiary production.

PRIMARY PRODUCTION

Involves extraction of natural resources and making them useful in their own form to human beings.e.g Agriculture, mining, and fishing and quarrying.

The output from the primary stage is used as inputs or raw materials in the secondary stage.

SECONDARY PRODUCTION

Involves transforming raw materials into semi finished or finished goods. It includes;- manufacturing and construction. The output of primary production is used as inputs of secondary production. E.g. cotton produced in primary production is used in textile industries to produce clothes.

- Construction includes;- construction of roads buildings, bridges e.t.c .The material used in construction industry is obtained from the primary production.

TERTIARY PRODUCTION

Involves provision of services production is incomplete till the final goods reach the final consumers or final users.

- It involves provision of services which will enable the final goods to reach to the hands of their final users. These services are further divided into consumerism and personal service.
- Consumerism refers to the service of whole sales, retailers, banks, insurance, transport etc. personal services refers to the services of doctor, advocates, teachers etc.

SPECIALIZATION AND DIVISION OF LABOUR

DIVISION OF LABOUR.

Is the process of splitting one particular job into several tasks, trade or processes.

SPECIALIZATION

Is the process of assigning one task or trade or process to one particular worker or a group of workers and the whole job accomplished with the help of several workers.

FORMS / NATURE OF SPECIALIZATION

1. Specialization by gender: - e.g. during the Old Stone Age, man was hunting and women were gathering.
2. Specialization by process or complex specialization.e.g In car assembling manufacturing etc.
3. Regional / territorial specialization. Different parts of the country produce different crops depending on the climatic conditions of a place.e.g. in Tanzania;-

- Mwanza – cotton
- Mbeya – rice
- Tanga – fruits

4. Occupational specialization such as teachers, doctors, lawyers etc.

5. Specialization by product.

ADVANTAGES OF SPECIALIZATION AND DIVISION OF LABOUR

1. It increases output.
2. It improves the skills of the workers.
3. The workers become more efficient.
4. It helps to increase employment opportunities. The jobs create many tasks to be performed by several workers.
5. Cost per unit is reduced as the result of large scale production.
6. It leads to less fatigue to the workers. I.e. less tiredness due to repeating the same job now and then.
7. It leads to employment to a specialist. One will go to the real field for which she/he is competent.
8. It enables the employment of the facilities such as machines.
9. It is easy to train a worker in one field rather than several fields of specialization.
10. Time saving since it does not involve movements.

DISADVANTAGES OF SPECIALIZATION

1. It can lead to unemployment, due to the result of changes in demand for labour caused by changes in demand for goods or changes in technology.
2. Less of craftsmanship being a result of increased use of the machines. The workers' skills are reduced due to the use of machines.
3. It results into high cost of production as a result of increased number of workers who have to be paid.
4. Boredom. Doing the same thing now and then leads to one getting bored.
5. Dulls the workers. The thinking capacity of the workers is reduced i.e. they are getting to know very few things but lack to know many others.
6. Lack of responsibilities, in case anything happens to be wrong there is no possibility of locating the sources of the fault.

LIMITATION OF SPECIALIZATION

1. Size of the firm.

   For specialization to be economically feasible the size of the firm must be large enough to keep the specialized labour, machines or plants fully employed.

2. The size or extent of the market.

   The size of market also presents the division of labour to take place beyond a certain unit. It shows the degree in terms of the area, length, range or size of the markets for given products or goods and services.

FACTORS AFFECTING THE EXTENT OF THE MARKET

-Lack of improved mass of communication.

- Change in the population size of a given area either through natural disasters or by net migration will affect the extent of the market.
- Inadequate monetary.

1. Nature of the some industries. Some industries by their nature have been less scope per division of labour ma be forced to be used for different tasks, otherwise the workers are underutilized.
2. Willingness and ability of a labour to work in different places and climate.
3. Availability of training facilities and employment security.
4. Nature of demand of some products. I.e. if the production are for individual demand production can take place on small scale hence limited division of labour

FACTORS OF PRODUCTION

These are resources or inputs which are used during the production process.

The factors of production are classified into;-

- Land
- Labor
- Capital
- Entrepreneurship

LAND

Refers to all unworked natural resources which are found either in or on the earth's surface and used in the production for goods and services. It includes mineral resources, water bodies, soils vegetation etc.

FEATURES OF LAND

1. Land is a gift of nature. That it is not a product of human labour. It is naturally found e.g. gold deposits are naturally found.
2. Land cannot be moved from one place to another but land has several uses such as farming, grazing, construction etc.
3. Land is fixed in supply. it is not possible to measure the size of land. E.g. increase of rent will not call for more land to be available or supplied.

   Other argues that land can be increased through land reclamation.

4. Land differ interns of fertility. It is of different grades depending on the natural fertility.
5. Land provides a site for production. That is all production activities are carried out on land.
6. Land obeys the law of diminishing marginal returns. It states that "Other factors remaining constant," application of more and more units of variable inputs on a given fixed inputs (land), will lead to the marginal product of the variable input to diminish after s sometime".

LABOUR

Labour is the human effort applying in production of goods and services to satisfy human wants.Labour is the human effort but all human effort is not labour until applying on production and rewarding considerations.

TWO TYPES OF LABOUR

(i)**Manual labou**r:are physical effort and very small % of mental uses on application of productions works in a factory or otherwise contributes his effort.
e.g Handcraft

(ii)**Mental labour**:These are intellectual works 70% applying mental/brain and very little effort on production of goods and services.
e.g Teachers,Doctors and engineers.

FEATURES OF LABOUR

1. Labor cannot be separated from a labourer.
2. Labor is highly mobile (can move from one place to another or shift from one job to another).
3. Labor cannot be stored if not employed.
4. Labor is not homogeneous. They differ in efficiency.
5. The reward for labour is **wages**
6. Labor is not motivated only by material incentives but also moral incentives.

EFFICIENCY OF LABOUR OR LABOUR EFFICIENCY

It refers to the quantity and quality of output a worker can produce for a given period of time. It refers to how productive the worker is.

It is measured as the ratio between total product and number of labour employed.

Efficiency of labour is also called productivity of labour.

Efficiency of labour = (Total product)/(no .of labour employed)

FACTORS WHICH INFLUENCE PRODUCTIVITY OF LABOUR

1. Efficiency of other cooperating factors such as the efficiency of the working tools / capital.
2. Health of the workers. Hunger and sickness lower the workers efficiency.
3. Wage rate. High wage rate motivates a worker to become efficient.
4. Incentives. That the provision of incentives such as frees meals, free housing, helps to rise the efficiency of a worker.
5. The level of education and training. Workers who are highly educated or trained are more efficient than those who are not educated or trained.
6. Natural talents or abilities. Some people are born intelligent of which become more efficient.
7. Working conditions. Good job supervision will help in increasing the efficiency of the workers
8. Working experience. Workers with experience tend to be more efficient than those without experience.

9. Weather conditions. A bad weather condition such as drought lowers the efficiency of labour while favorable weather conditions raises the efficiency of the worker.

MOBILITY OF LABOUR

It refers to the case with which a labour or worker either moves from one geographical area to another or shifts from one employment to another.

It is the ease in which labour can move either geographically or occupationally.

TYPE OF LABOUR MOBILITY

(i)***Occupational mobility***.i.e. a labour moves from one employment to Another employment such as from being a doctor to teaching.

(ii)***Geographical mobility***. A worker moves from one working place to another working place.

(iii)***Vertical mobility***. Move from lower position to a higher position.This may be due to long period of education training and promotion.

(iv)***Horizontal mobility***. A worker moves from one work place to another work place with the same working rank or position. Example if an account leaves his present job and joins another for the same job.

IMPORTANCE OF LABOUR MOBILITY

1. It helps the workers to increase their earnings.i.e. Move from lower paying to the high paying jobs.
2. It helps to reduce the problem of unemployment. People move from areas with no employment to areas with employment opportunities.
3. It promotes the sense of national hood and international community.
4. It promotes the transfer of technology and culture.
5. It enables the workers to move to those areas which are competent or specialized.

FACTORS WHICH LIMITS MOBILITY OF LABOUR

1**. Lack of required education and training**. Occupational mobility becomes difficult.

2. **Age**. The old people are less mobile.

3. **Family Ties**. The married people are less mobile people that is they do not prefer to stay away from their families.

4. **Cost of movement**. The cost of movement (transport) of a worker and her / his family may be high.

5. **Housing problems**. It may be difficult to occupy a residential house for the family.

6. **Health difficulties**. Workers with health problems such as diseases tend to be less mobile.

7. **Political boundaries.** It requires legal passports and certificates to enable one to migrate to another country and to be allocated to get employment which limits labour mobility.

CAPITAL

Capital refers to man made resources which helps other factors of production such as land,labour in the production of goods and services.

Examples are;-

- Machine
- Tools.
- Building

FEATURES OF CAPITAL

1. Capital is man made resources used in production.
2. Some forms of capital are highly mobile such as sunk capital while other forms of capital are immobile such as floating capital.
3. Capital helps to increase the productivity of other factors of production. Example;- land with fertilizers more production and a fisher man with a fishing net catches more fish.
4. The supply of capital can be increased through savings, which is influenced by high interest rate. High interest rate brings about more saving which tend to bring high capital formation.

FORMS OF CAPITAL

1. **Fixed capital**.

   Is a form of capital which is durable and does not change its form during the production process. Example;-buildings, machines, etc.

2. **Sunk capital.**

   Is a form of capital which is durable and has only one specific use.eg railway locomotive or an rice factory (produces only rice). Fixed capital fall in this category if it could not be used for any other purpose.

3. **Circulating capital**.

   Is a form of capital which not durable and changes its form at the end of the production process.e.g raw materials.

4. **Floating capital.**

   Is a form of capital which is not durable and has several uses. Examples are; - raw materials, fuel, and money.

CAPITAL FORMATION OR ACCUMULATION

Is the process of adding up stock of capital goods to the existing stock. Capital goods means the goods which are used for further production.

Capital formation depends or is influenced by saving which is affected by the level of income. That is high income levels leads to more savings and hence more capital formation.

The level of saving is influenced by the following factors;

1. The level of income.ie. The higher the income, the higher the level of saving.
2. The rate of interest.
3. The government policy political stability.
4. The willingness to save.i.e.saving habits.
5. Economic stability.
6. Price. High price level reduces saving because large part of income is consumed.
7. Future expectations.Eg leaving an employment one will save more.

ENTREPRENEURSHIP

It refers to the process of organizing the other factors of production. An ***entrepreneur*** is a person who owns the business. It is said that if land,labour and capital are left alone, they will not produce. Therefore the entrepreneur has to organize them.

FUNCTION OF ENTREPRENEUR

1. Providing initial capital for starting the business.
2. Bear with the risk of loss and profit (uncertainty) bearing.
3. To employ new technology into the firm.
4. Employ other factors of production such as land,labour and capital and reward them accordingly.
5. Marketing the product i.e. finding whether the commodities could be demanded by the consumers or not.

6. Making all important decisions in the firm. Such as;- what to produce, how to produce i.e. method of production to be applied, for whom to produce and where to produce.
7. To look after the production i.e. supervises the whole process of production.

CHARACTERISTIC OF ENTREPRENEURSHIP

1. An entrepreneur does not work alone, he must employ other factors.
2. The supply of entrepreneurship skills is scarce and cannot be developed easily.
3. The reward of entrepreneurship depends on efficiency of other factors and it is known as **profit**.
4. In a small business, the entrepreneur and the organizer is the same person who is also the owner of the business.

CLASSIFICATION OF THE FACTORS OF PRODUCTION

The factors of production are traditional classified into land, labour, capital and entrepreneurship.

Distinction between the factors of production is possible.

It is very difficult to distinguish land from capital or labour from entrepreneurship.For example; The seeds and minerals are found in nature so they are land, but seeds and mineral are also raw materials hence they are capital.

Therefore the distribution between land and capital is just a matter of "time" in short seeds and raw materials are gifts of nature but in the long run they are capital.

Substitution between factors is possible .i.e. it is possible to substitute land for capital or substitute labour for capital. A farmer may increase the size of land for cultivation or on the existing land another one may improve seeds and use more fertilizers.

Also one can employ the labour or use machine; hence economists have classified the factors of production into specific and non- specific factors of production.

1. **SPECIFIC FACTORS OF PRODUCTION**

Are those factors of production which cannot be changed easily from one use to another use. Such as;-highly skilled teacher

2**. NON- SPECIFIC FACTORS OF PRODUCTION**

Are those factors that can be easily changed from one use to another use. E.g. bare land, unskilled labour, raw materials such as diamond can be capital.

TECHNIQUES OR METHODS OF PRODUCTION

Is the method which is used to produce a commodity. These are techniques of production. It includes;-

1. Labor intensive technique.
2. Capital intensive technique.
3. Land intensive technique.

LABOUR INTENSIVE

Is the method where by the big number of workers are used in production using simple tools eg where the labour are employed to firm a land using simple hoes is a labour intensive technique.

ADVANTAGES OF LABOUR INTENSIVE TECHNIQUE

1. It helps to reduce the problem of unemployment. More people will be employed.
2. It is less expensive (cheap).

   The workers especially the unskilled ones may be lowly paid.eg. In the LDCS.

3. The maintain and train labour is also less expensive compared to maintain of capital machines.
4. It helps to distribute income among individual people and earn income through working.
5. It helps to rise government revenue through taxing the workers.

DISADVANTAGES OF LABOUR INTENSIVE TECHNIQUE

1. The products produced using labour intensive technique is of low quality.
2. Labor intensive technique leads to production of low output.
3. It may lead to some labour problems, like;-strikes or demand for higher wages.
4. Increased of use of labour intensive technique hinders technological development.

CAPITAL INTENSIVE TECHNIQUE

Is the technique where more of the machines are used in production and less labour is used.e.g Farming with a tractor or using computerized system of production.etc.

ADVANTAGES OF CAPITAL INTENSIVE TECHNIQUE

1. It leads to large scale production.
2. It improves the quality of the goods.
3. It helps to reduce labour problems.No demand for salary increase by the computers or robots.
4. It helps to promote technological advancement.

DISADVANTAGES OF CAPITAL INTENSIVE TECHNIQUE

1. It leads to unemployment of people.That is many people lose their employment as machines replaces labour.
2. It is a very expensive technique.
3. It is very costly.That is to maintain the capital in case of any employment.
4. Large scale production may lead into the problem of over production due to lack of a wide market.

LAND INTENSIVE TECHNIQUE

Is the method where more of land is used in production and less of capital eg to increase the form output one decides to expand the form size which using the less of fertilizer.

FACTORS WHICH DETERMINE THE CHOICE OF TECHNIQUE OF PRODUCTION

1. Price of factors.

   That is, if the factors of production is sold at a lower price producers will use more units of that factor of production and the vice verse.

2. Efficiency of the factors.

   Producers will choose a factor of production which is more efficient than the other factors. Example; - the use of capital creates more efficiency than labour.

3. Degree of substituting a factor of production. If a certain factor of production cannot be substituted with other factors of production, producers will have to use more units of that factor e.g. high specialized doctor cannot be substituted.

PRICING OF THE FACTORS OF PRODUCTION

Pricing of the factors of production refers to the system of making payments or rewarding the factors of production.

REWARDS FOR FACTORS OF PRODUCTION

1. The price for **land** is ***rent.***
2. The price for **labour** is ***wages and salaries***.
3. The price for **capital** is ***interest***.
4. The price for **entrepreneurship** is ***profit.***

WAGES

Wages are the payments which are made for the productive services of a labour.

KINDS OF WAGES

1. **Money wages** refers to the wages paid and recorded interms of money. It includes monetary payment only.

   Money wages are wages earnings that are measured or expressed interm of money or nominal or money wages refers to the actual sum of money earned by the workers.

2. **Kind wages** refers to the wages which are paid in the form of some goods e.g. a former pays in grams of crops to the labour, potter, carpenter etc for the services rendered by them
3. **Real wages**.

   Real wages means the purchasing power of money wage interms of goods and services consumed by the wage earner plus other facilities provided by the employer free of cost e.g. free uniform for policemen, transport allowances etc.

FACTORS DETERMINING REAL WAGES

1. Money wages and purchasing power of money while competing real wages, we have to find out what quality of goods and services can be purchased with the money wages paid to the labour.
2. Extra income. If a labour can earn extra income from an association with a particular job, that should also be considered while counting real wages.

   A teacher can earn extra income through tuition or writing a book, A doctor can earn extra income by giving consultancy to the patients at his house.

3. Extra facilities.

   Facilities such as housing, medical, education, e.t.c given to the labour should also include in real wages.

4. Working hours.While computing real wages working hours with their distribution, leaves and vocation should be taken into consideration.
5. Nature of work. If the work is risky, dull or injurious to health.The real wages in that case will be considered low.
6. Working condition. Working conditions have large effect on real wages. Real wages are very much affected by behavior of the employer or environment of the working place provision for cold water and fans in the summer’s heater in the winter.
7. Permanency of the work.

   Real wages will be more in the profession where work is regular and permanent in comparison to the jobs with temporary nature.

8. Time and cost of training.

Some workers require a long period of time and high cost for training e.g. engineering, medical and other case will be low because of time and cost of training.

WAGES DIFFERENTIALS

Wages differs among different people in the same job and among different jobs. We find that there is a difference in the wages of workers working in different occupations. Wage differentials can be explained mainly on the following grounds;-

1. Agreeable of the job. Some jobs are more pleasant and agreeable than others. Supply of labour in pleasant job will be more than in unpleasant jobs hence wages may have to be raised to attract workers into less attractive jobs.
2. Regularity of the job. Some jobs provide regular employment while other give only irregular employment especially seasonal occupations such as sugar mill, ice factory, etc. hence the wages rate in the job having regular employment.
3. Risk and danger. Some jobs are more risky and dangerous than the others. For instance;- Air services, military mires are some such examples where risk and danger are great. Hence it must be compensated by giving more wages in such occupation.
4. Responsibility in the job. Wages sometimes differ on account of responsibility of the job eg there is more responsibility on the principal of college than the teachers that is why a college principle receives higher salary.
5. Working hours. Sometimes the hours of work are requiring very easily or very late attendance or shifts hence higher wages have to be paid in such occupation.
6. Cost and time of training. Jobs which require high quality training, wages will be higher in them.e.g; wages of doctors and engineers are always high.
7. Differences in ability. Labors who are more able and efficient will get higher wages.
8. Social prestige. Wages will also be high in the jobs having social prestige. Sometimes the wage rate is kept high merely to keep the high prestige of a particular job.
9. Non- competing groups.

   There are different categories of labour which modern economics call non- competing groups in the market e.g.; plumbers cannot complete for the job of being a doctor or a butcher cannot be employed for the job of accountancy. Thus different wages are paid for different categories of labour.

10. Use of modern machines and techniques. Occupations having modern machines and uses high sophisticated techniques of production can provide higher wages.

RECARDIAN THEORY OF WAGE

The one different theory that explains how wages a rises from time to time for example substance theory of wages. Standard of living theory of wages finds theory marginal productivity theory and modern theory of wages and the bargaining theory of wages.

MARGINAL PRODUCTIVITY THEORY OF WAGE

The marginal productivity theory states that "Under perfect competition of every worker of the same skills and efficiency in a given category will receive wages equal to the marginal product of the labour.

The theory operates under the following assumptions;-

1. It assumes that labour is homogeneous.i.e they are the same in skills, efficiency, abilities, etc.
2. Factors of production i.e. labour can be substituted for each other perfectly.
3. The theory assumes that wage levels and labour productivity are independent. This is not necessary valid. Increased wages may be call for extra efforts from the labour force so that productivity increases.
4. It's not always possible to separate the marginal contribution of each labour in the production.
5. There are other factors than marginal product which determine reward for labour in production.

2. SUBSISTENCE THEORY OF WAGES

This is so called "Iron law of wages". It states that," if wages rises above subsistence level increased in population is inevitable follows and this forces wages down to subsistence level".

This theory was rejected due to the following;-

1. It is not realistic, because it is not necessary that the increase in wages must lead to the increase in population.
2. The theory does not explain the inequity of wages in different occupations and countries.
3. The theory attempts to explain mainly on the supply side with insufficient reference to the condition of demand.

Application of the theory was probably the theory that was formulated, since poor harvest in those days means that many people died for starvation. If may still be true of some more densely population where the standard of living is low.

3. THE MARKET THEORY OR MODERN THEORY OF WAGES

The modern theory of wages is also called **demand and supply theory**. According to this theory wages is determined by the interaction between demand and supply.

Wages are the price of labour like other prices are determined in a market.

-To understand the theory of wage determination, we have to understand the demand for and supply of labour affecting them.

DEMAND FOR LABOUR

The demand for labour in a factor market is a derived demand. It is derived from the anticipated goods and services in the production of which it assists. However the demand for labour is also affected by;-

1. Elasticity of demand for the commodity produced.
2. Technique of production.
3. Price of other factors of production.
4. Marginal productivity i.e. entrepreneurs demand for labour because of its productivity. It is because of its productivity that entrepreneurs are ready to pay them.

SUPPLY FOR LABOUR

The supply for labour can be defined in two ways;-

1. The total number of people available for employment.
2. The total numbers of hours that people are willing to work.

The supply of labour depends on the following factors;-

1. The size of population.
2. The proportion of the willingness and ability to work i.e. labour force.
3. The number of labour worked by each individual.
4. Wage rate i.e. the supply of labour increases with the rise in wage rate and decreases in wage rate.

NATURE OF THE SUPPLY CURVE FOR LABOUR

The supply of labour increases with the increase in wage rate. Therefore the supply curve for labour is upward sloping curve or it is downward sloping curve (which is sometimes known as regressive in nature).

That if wages increases the supply of labour increases. However it increases up to a certain point from there after it decreases until increase in wages forming what is so called 'BACKWARD SLOPING CURVE" or "REGRESSIVE SLOPING CURVE".

From the graph therefore an increase in wages from OWO leads to the increase in the number of working hours from ONO. But further increase in wages from OW1 leads to the decrease in the number of working hours from Ono to ON1.
Why the supply curve for labour is backward sloping or it is regressive in nature?

1. Reduction of number of labour/ workers willing and able to work. Sometimes it seems that when the wages of member of family especial men increase, it result the reduction of worker (women's).
2. Work leisure rate or income substitution effect. Ie when wages increase workers income also increase. Worker may like to have more leisure in order to enjoy their ability (income).

3. Meeting objectives / goals.

3. SUBSISTENCE THEORY OF WAGES

If wages rises above subsistence level on increase in population is inevitable from / follows and this wages should be paid to the level of subsistence (meeting basic needs).

CRITICISMS

1. It is not realistic. It is not necessary when income increase and also population increases.
2. Does not explain the equality between higher earners and lower earners in a country.
3. The theory attempts to explain mainly only on the supply side with efficiency

ITS APPLICATIONS

The theory was probably true at the time that it was formulated since there was poor harvest in those days which means that many people died of starvation. It may still be true to some of more densely populated where the standard of living is low.

CAN TRADE UNIONS RAISE WAGES?

Trade unions can raise their wages if they follow this:-

1. If workers are paid below marginal productivity.
2. By increasing marginal productivity by other means. ie they pressurize an employer by demand for modern machines, capital etc.
3. By using demand for labour. Through make the change of technique interview in human labour.
4. Raised for particular type of labour in industry i.e education skills.
5. If wages take small portion in the cost of production. An employer can provide (rise the wage of a worker) wage to a worker,if the wages take small portion in the cost of production.

COLLECTIVE BARGAINING AND TRADE UNION

Collective bargaining refers to the negotiations between a trade union and employer or an employer's organization over the wages and work condition.

Trade unions.

Is the continuous association of wage earners for the purpose of monetary and improve paying of the workers and condition of working.

Example; in Tanzania we have TFTU –Tanzania Federation Trade Union.

FUNCTIONS OF TRADE UNIONS

1. Bargaining on behalf of the workers for maintenance of better pay and good working condition i.e. provision of education, holiday recreations and
2. To safe guard jobs. One should actual be sure of not losing job.
3. To offer monetary benefits i.e. sickness and accident person.
4. To restrict the supply of labour so as to maintain their demand i.e. the higher the demand, the higher wage rate.
5. To keep all its members employed.
6. To participate in national and international social economic organizations. E.g. ILO.

FACTOR AFFECTING THE STRENGTH / POWER OF TRADE UNION

1. The size of its membership.

   If the trade union has large size of members, its strength will be large, likewise if the trade union shows a small size of its member its strength will be less.

2. The extent of the effect it cause to the community or society to strike.
3. General economic conditions of the trade unions.
4. The nature of demand and supply of labour and product.
5. Proportion of the wage to the total cost of production.

RENT (THE REWARD TO LAND)

Is the reward to the use of services of land, according to **Ricardo.**

Rent

Is that portion of produce of the earth which is paid to the landlord for the use of original and indestructible power of the soil.

How does rent arise

- According to Ricardo opinion rent arise only on land not on other factors of production.

  Because of the following peculiarities of land which are not found in other factors of production.

1. Land is free. It is a gift of nature hence it has no cost of production from societies' point of view.
2. The supply of land is fixed and inelastic in the long run.

- According to Ricardo "the continuous rise in population of the law of diminishing returns are the two principle reasons for the emergence of economic rent.

  Thus According to Ricardo rent a rises because different plots of land have different fertility power.

Thus the difference in fertility power has been the reason for the emergence of economic rent.

What is **economic rent**?

Refers to the payment received by a factor over and above what is necessary to induce that factor to enter its present employment or to keep it there.

Transfer earnings

Refers to the minimum earning that must be paid to a unit of any factor to hold its present use. It is minimum payment that keeps a factor in the present occupation.

E.g. **Economic rent** = present earning – transfer earning.

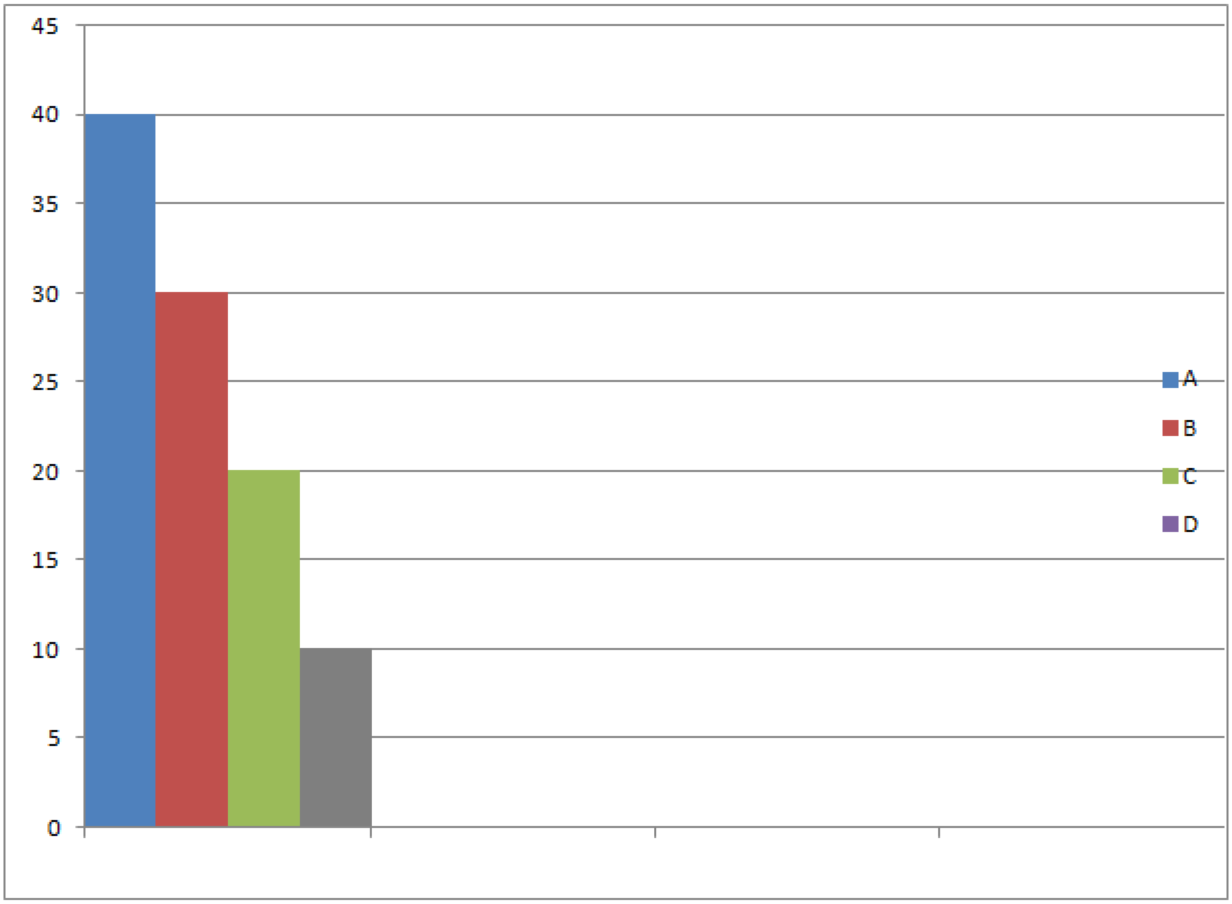
Consider rent under extensive cultivation.

Grand of land	**Total production in (000)**	**Rent (Tsh)**
A	40	40-10=30
B	30	30-10=20
C	20	20-10=10
D	10	10-10=0

Therefore, According *to **Ricardian theory*** rent can be measured as

Rent = output of extra marginal land – output of the marginal land

This also can be illustrated by using the graph below



Main conclusions of the Ricardian theory.

1. Land is the only factor which posse's original and indestructible power gifted by nature and those is the power which give rise to rent.
2. Rent has a differential surplus since it arises due to differences in fertility and situation.
3. To Ricardo rent was the result regardless of nature.
4. As the price of corn is equal to the cost of production over the marginal or no rent land does not enter price. In other words the price of corn really determines land rent rather than having land rent determine the price of corn. On this basis Ricardo concluded corn is high not because of rent is paid but rent is paid because corn is high,

CRITICISM OF THE RICARDIAN THEORY

1. He restricted rent to the land only while it is applicable to other factors of production. Rent is not the part of price of land. But according to modern economists rent does affect price.
2. He implied that there will be no unit in all land if were fertile. Since rent is not only restricted to the fertility and but also infertility land.

3. He ignored the possibility that there were alternative uses of the price of land .This basically based on natural productivity land.

   Even infertile land can be made fertile through reclamation process.

MODERN THEORY OF RENT

According to the modern theory developed by this Joan Robinson and others rent can rise on any factor of production. i.e land,capital, labour and entrepreneurship.

- According to the modern economist every factor has level element in other words. The supply of the factors of production is not perfectly elastic and hence they earn surplus income which is of the nature of rent.
- According to Mrs. Joan Robinson, the essence of the concept of rent is conception of surplus earned by a particular part of factor of production over and the minimum necessary to include it to do its work.
- According to prof. Lip say, Economic rent is an excess over transfer earnings that a unit of the factors actually earns.

  In short **Economic rent** = **factors actual earnings** – **transfer earnings**

  That is**; Economic Rent** = present earning – Transfer earning

DETERMINATION OF ECONOMIC RENT

According to economic to modern theory economic rent arise due to scarcity and specificity of the factors of production.

Example

Suppose a mechanical engineers according in Kahama gold mining get $2500 as monthly pay. If he leaves Kahama Gold mining he can get $2000. In this situation $2500 is actually earning and $2000 is his transfer earnings that is the earning of the next best job.

This Economic rent = present earning – Transfer earning

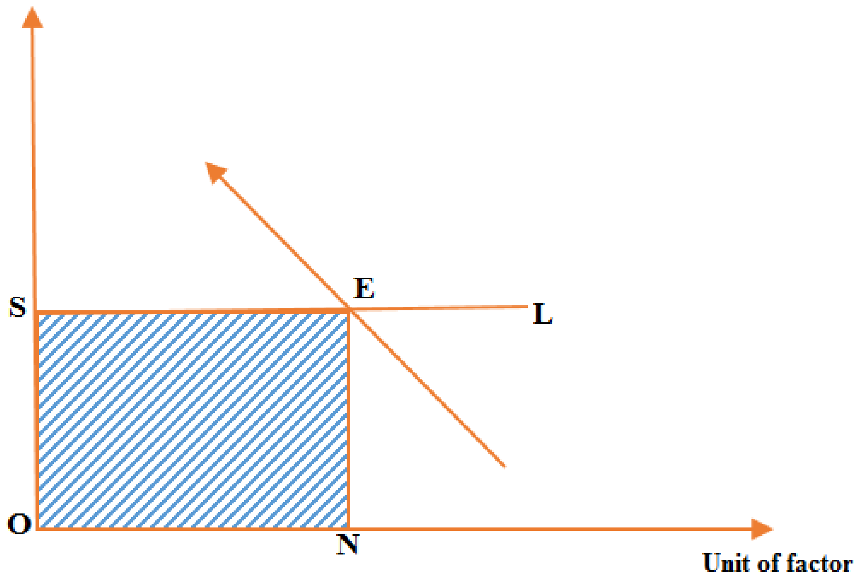
= $us 2500 - $us 2000

= $500.

In other word the rent of to any factors of production will depend on its elasticity of surplus as follows;-

1. If the factors is perfectly elastic, supply will earn no rent because both its actual earning and transfer earning are equal

GRAPH



- Present earning = SENO

  Transfer earning = SEON

  Rent =0

2. Rent under perfect inelastic. When the factor is completely specific or has only one specific use, change in price has no effect on its supply i.e even at zero prices the supply of the factor will remain the same.

Thus this factor has no transfer earning. Therefore the whole actual earning is the economic rent.

This is illustrated under the diagram below

From the diagram

Transfer earning = o

Present earning = WELO

Rent = actual earning – transfer earning

WELO – 0

- Actual earning = Rent

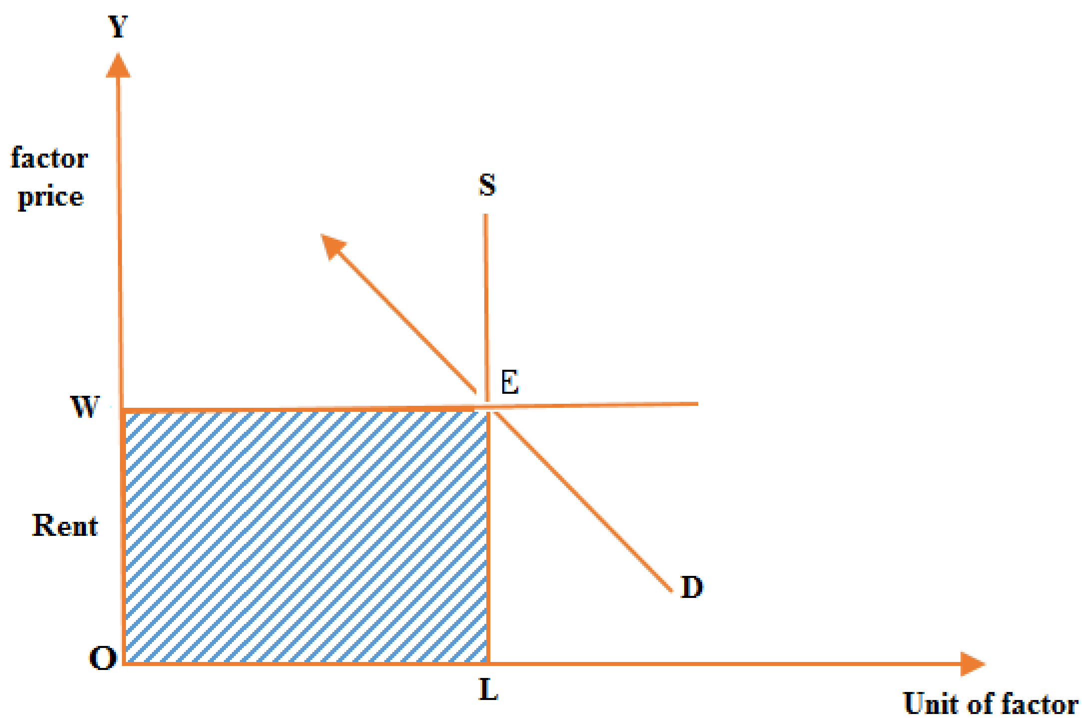
3. Rent under relatively elastic supply.

It suggested that normally the supply of factors tend to increase with the increase in the factor price.

Thus the supply of the factor remain upward sloping comes from left to the right.

If the supply curve slope upwards all units to the left for the one being considered have lower transfer earning. Thus the total transfer earning of the units is the area below the supply curve. And the total payment (present earning) is equal to the total area.

This illustrated diagram below



From the diagram we note that;

Rent = present earning – transfer earning

RENO – SENO = Res

Rent = RES

Thus the above analysis makes it clear that the more elastic the supply curve the less.

QUASI – RENT

The concept of quasi –rent was propounded and popularized by **Prof. Marshall.**

He used to explain the return of man- made produce goods the supply of which is fixed in the short period.

PRODUCTION FUNCTION

In a technical expression that indicates the relationship between output and the factor inputs used to produce such output.

In short production function can be written as;

Qx = f (K, L, E etc)

This can be simplified;

Qx = f *(k,l*) while ***l*** is variable and ***k*** is fixed.

TYPES OF PRODUCTION FUNCTION

1. Short run production function. Some factors are fixed while other are variable ie K (capital) is fixed labour is variable.

   Qy = ***f(k,l)***

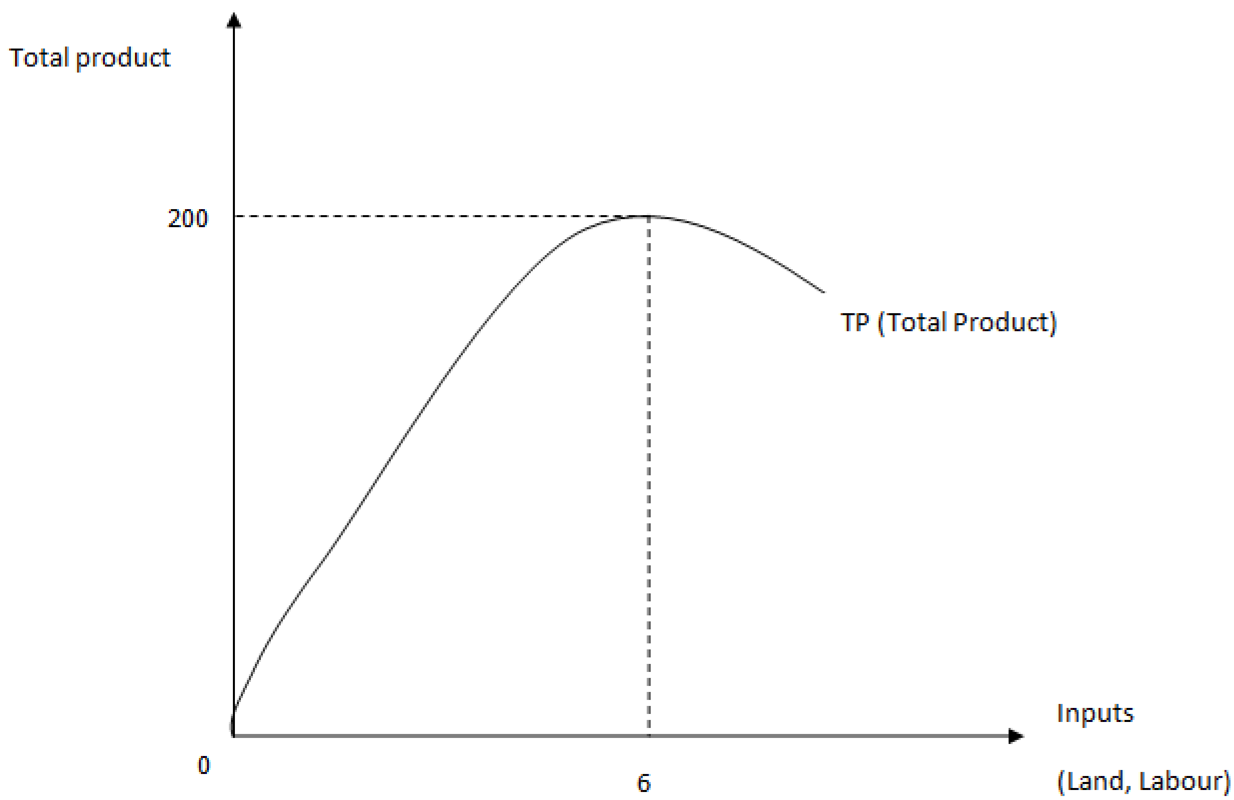
   It is subjected to the law of the diminishing returns.

2. Long run production function.

   All the factors of production are variable. It is subjected to the **law of return to scale**.

Land	Labour	Total output
1	0	0
1	1	16
1	2	48
1	3	108
1	4	164

1	5	194
1	6	200
1	7	180
1	8	150



FACTORS DETERMINING THE PRODUCTION FUNCTION

1. Quality of resources available.
2. State of technology.
3. Size of a firm.
4. Price of factors of production.
5. Political stability.
6. Infrastructural facilities.
7. Political making a factor.

TOTAL PRODUCT, AVERAGE PRODUCT AND MARGINAL PRODUCT

TOTAL PRODUCT :- Is the level of output which can be produced by a given amount of input.

Total product = *Labor* *x* ***Average product***

Where L is labour.

AVERAGE PRODUCT AP

Is the output per unit of variable factors

AP = TP/L
Where by TP=Total Product
L=Labour quantity

Given
Q $=2L^2 - L$ find average product.
AP=TP/L
AP=$(2L^2-L)/L$
Divide L from the TP given.
Average product = 2L – 1

MARGINAL PRODUCT (MP)

Is the addition to the total product that result to unit factor inputs.

Is a changes of total output as a result of unit change of a factor inputs.

MP=âˆ†TP/âˆ†L
Where by ΔTP=Change of total product
ΔL=Change of labour
TP=Total product
OR

$$MP=\frac{TP2-TP1}{L2 - L1}$$

Example:

Find marginal product of the following economics equation

$Q=2L^2-L$

MP=SL/SQ

=TP/L

$MP=2X2L^{2-1}-1XL^{1-1}$

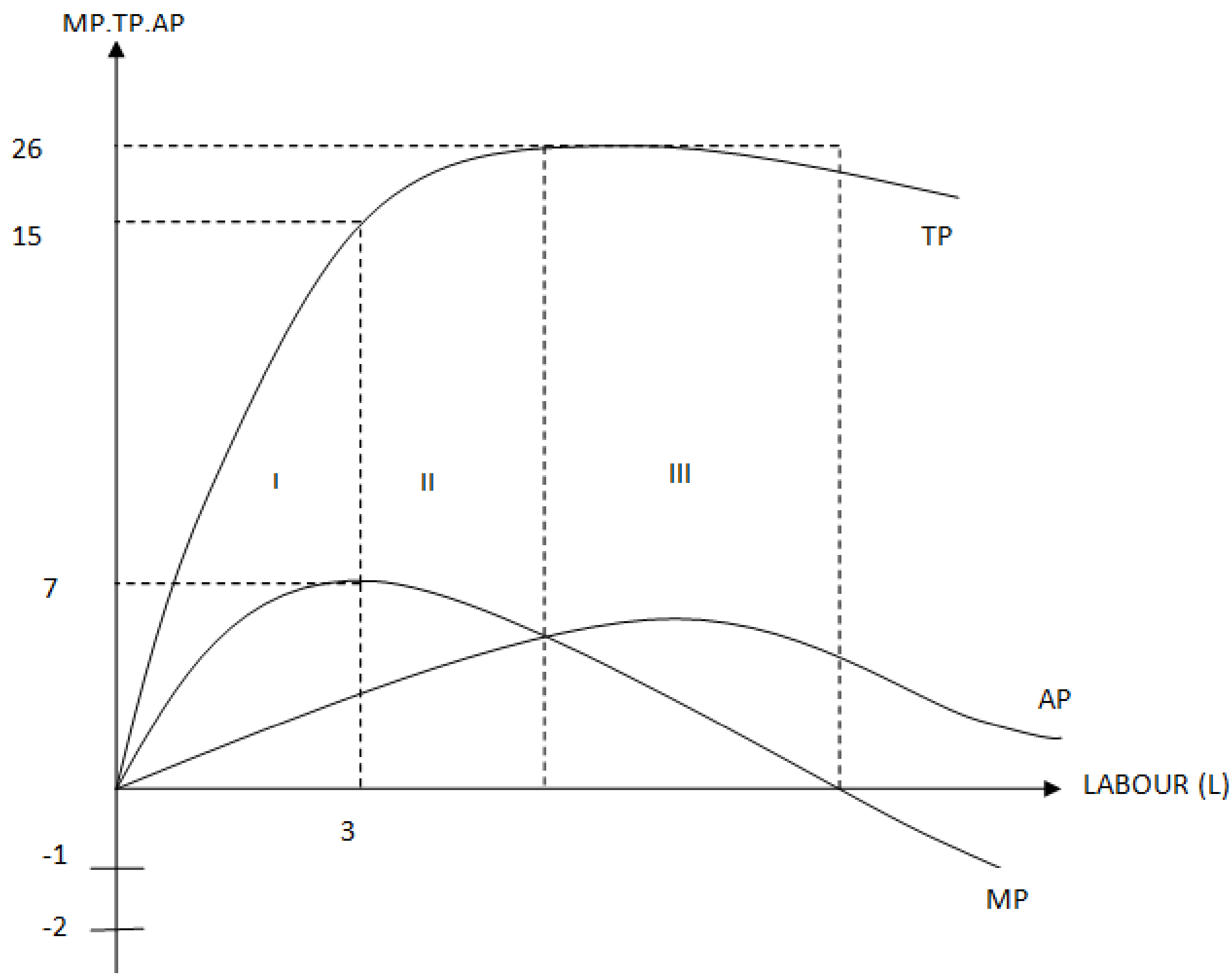
MP=4L-1

Assignment

The following table is demand from a production firm y.

L	**TP**	**MP**	**AP**
1	3	3	3
2	8	5	4
3	15	7	5
4	20	5	5
5	24	4	4.8
6	26	2	4.3
7	26	0	3.7
8	24	-2	3
9	23	-1	2.5
10	20	-3	2

THE GRAPH MP, TP, AP



MP-Marginal Product
TP-Total Product
AP-Avarage Product
L-Labour Quality
G-Point of a Diminishing Returns.When quality labour employed are 3and marginal product rising up to and start to diminish.Total product increases from1 to 10. Average product increase until 5men are employed,then it deminish

The Law of Variable Proportions which is the new name of the famous ***Law of Diminishing Returns.***

→According to Stigler" "As equal increments of one input are added, the inputs of other productive services being held constant, beyond a certain point, the resulting increments of produce will decrease i.e., the marginal product will diminish".

→According to Paul Samulson "An increase in some inputs relative to other fixed inputs

will in a given state of technology cause output to increase, but after a point, the extra output resulting from the same addition of extra inputs will become less".

The law of variable proportions states that as the quantity of one factor is increased, keeping the other factors fixed, the marginal product of that factor will eventually decline. This means that upto the use of a certain amount of variable factor, marginal product of the factor may increase and after a certain stage it starts diminishing. When the variable factor becomes relatively abundant, the marginal product may become negative.

OR

Law of Variable Proportions:

"in a given state of technology, when the units of variable factor of production (L) are increased within the units of other fixed factors, the marginal productivity increases at increasing rate up to a point, after this point. it will become less and less"

Assumptions:

The assumptions of the **law of variable proportion** are given as below:

1. It is assumed that the technique of production should remain constant during production.
2. It operates in the short-run because in the long run, fixed inputs become variable.
3. Some inputs must be kept constant.
4. The various factors are not to be used in rigidly fixed proportions but the law is based upon the possibility of varying proportions. It is also called the law of proportionality.
5. It is assumed that all the units of variable factors of production are homogeneous in amount and quality.
6. It is assumed that labor is a single variable factor.

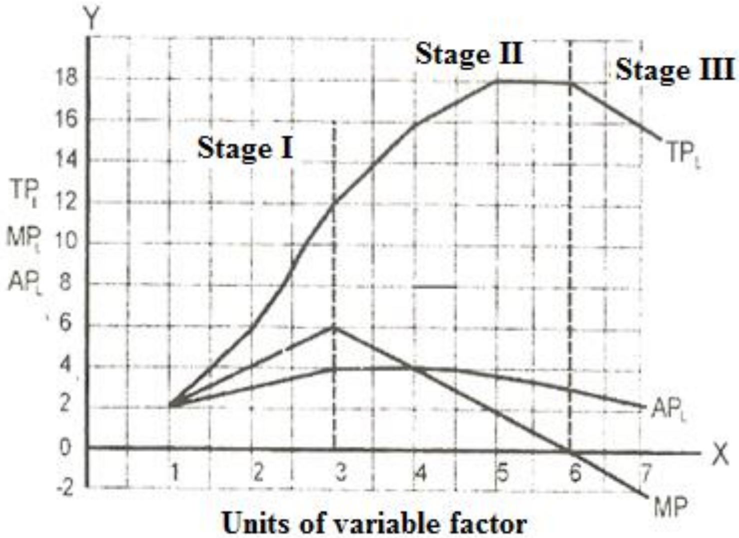
Schedule:

The law of variable proportion is explained with the help of the following schedule:

Units of variable factor (L)	Marginal product (MP_L)	Total product (TP_L)	Average product (AP_L)	Stages
1	2	2	2	I
2	4	6	3	
3	6	12	4	
4	4	16	4	II
5	2	18	3.6	
6	0	18	3	III
7	-2	16	2.28	

In the above schedule, units of variable factor (labor) are employed with other fixed factors of production. The marginal productivity of labor goes on increasing up to the 3rd worker. This is so because the proportion of workers to other fixed factors was at first insufficient. After 3rd worker the marginal productivity goes on falling onwards till it drops down to zero at the 6th unit of labor. The 7th worker is only a cause of obstruction to the others and is responsible in making the marginal productivity negative. The marginal productivity (MP_L) and the average productivity (AP_L) equalize at 4the worker. Then the MP_L falls more sharply

Diagram:



The number of workers are measured on X-axis while TP_L, AP_L and MP_L on Y-axis. The above diagram shows the three stages also obtained from the schedule.

Stage I:

At this stage MP_L increases up to 3rd worker and its curve is higher than the average product, so that total product is increasing at increasing rate.

Stage II:

At this stage, MP_L decreases up to 6th unit of labor where MP_L curve intersects the X-axis. At 4the unit of labor $MP_L = AP_L$ after this, MP_L curve is lower than the AP_L. TP_L increases at decreasing rate.

Stage III:

At 6the unit of labor the MP_L becomes negative, the AP_L continues falling but remains positive. After the 6th unit, TP_L declines with the employment of more units of variable factor (L).

Relationship Among Total, Average and Marginal Product:

The relationship among total, average and marginal product of labor in the light of the law of variable proportion is explained as under:

1. The marginal productivity of labor increases, the TP_L also increases at increasing rate. It is shown in the schedule up till 3rd unit of labor. The MP_L curve has positive slope and TP_L curve has rising tendency towards Y-axis.
2. When the MP_L decreases onwards till it drops to zero, the TP_L increases at decreasing rate as shown in the stage II and the TP_L curve has positive slope but has rising tendency towards X-axis
3. When the MP_L is equal to zero, the TP_L is maximum as shown on the 6th unit of labor.
4. When the MP_L becomes negative, the MP_L curves falls below the X-axis, the TP_L declines from its maximum position and its slope becomes negative as shown in the stage III in the above diagram.
5. When the MP_L increases, The AP_L also increases but at slow rate. The MP_L curve becomes above the AP_L curve. Both have positive slopes.
6. At some point, $MP_L = AP_L$. At this point, MP_L curve intersects the AP_L curve as shown at the 4th unit of labor in the above diagram.
7. After intersecting point, MP_L falls sharply. The MP_L curve becomes below the AP_L curve. Both curves have negative slope.
8. When MP_L becomes negative, the APL never becomes negative because it is calculated from the TP_L. So MP_L curve is below the X-axis but AP_L curve is above the X-axis, having negative slope.

CAUSES FOR OPERATION OF THE LAW

- Fixed of a factor.
- Scarcity of a factor.
- Existence of imperfect substitutes. There is no way capital can be substituted to labour.
- Optimum combination of the inputs.

LIMITATIONS OF LAW OF VARIABLE PROPORTIONAL

(DIMINISHING RETURNS)

- Operates only in the short run.
- It is restricted to land only yet in reality it can apply to other factors when they are fixed.
- It is not applicable in case of virgin land because the land becomes productive for a long period.
- Variable factors are not homogeneous, that is they differ in efficiency ability.
- It does not consider the influence of other factors such as health of a worker.

Thus the operation of law of returns to scale is mainly caused by two major means,which are;- economics of scale and diseconomics of scale.

1. ***Very short run.***

   Refers to the period of time which is very short to make all factors variable i.e. that is all factor are fixed.

2. ***Short run***.

   Refers to the period of time where at least one factor is fixed and the other is variable.

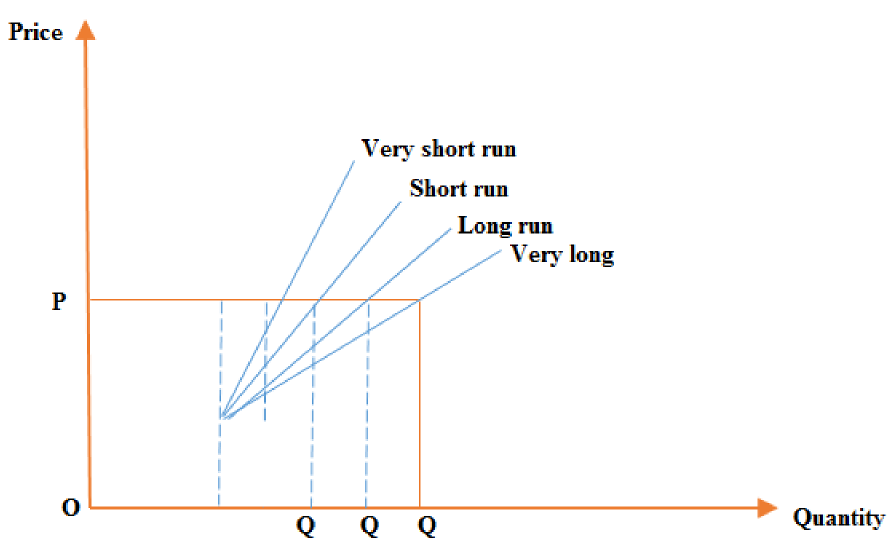
3. ***Long run***.

   Refers to the period of time that is long enough to make all factors variable.

4. ***Very long run***.

   Refer to the period of time which is able to not only change factors of production but also the technology.

   GRAPH



The law of return to scale of low production operates in long run while the law of Diminishing returns operates in the short run production function.

ASSIGNMENTS

Consider the following table and then answer the question that follows;

Labor (L)	**TP**	**AP**	**MP**
1	4	4	4
2	14	7	10
3	27	9	13
4	40	10	13
5	60	12	20
6	72	12	12
7	77	11	5
8	80	10	3
9	80	9	0
10	75	7	-5

1. From the table draw the curve to depict the law of variable proportion.
2. Identify the number of labour at

1. MP=AP
2. Max=TP
3. MP=0

SOLUTION

1. MP=AP

   The number of labour at MP=AP from the graph is 6

2. Max = TP

   The number of labour of maximum is 9

3. MP = 0

   The point at that level MP = 0 is 9. Because the maximum is 9.

   Given the following TP $=2L^2-20L$

1. Find the unit of labour which will maximize output.

2. Calculate the TP, MP, and AP.

SOLUTION

From TP = $2L^2$-20L
= 2 x $2L^{(2-1)}$-$20L^{(1-1)}$
= 4L – 20

The about at maxim MP = 0
MP = TP
0=4L–20

20/20=4L/4

5 = L

The unit of labour which will maximize the output is 5

MP, TP, and AP

TP=$2L^2$-20L

TP =$2L^2$-2L

AP = TP/L

= $2L^2$-20L

= L(2L-20)/L

= 2L – 20

= (2(25)-20(5))/5

= -50/5

AP= -10

The average product can't be -10 is +10

TP = 2(25) - 20(5)

= 50 – 100

= -50

The product can’t be negative then ignore negative and therefore TP = +50

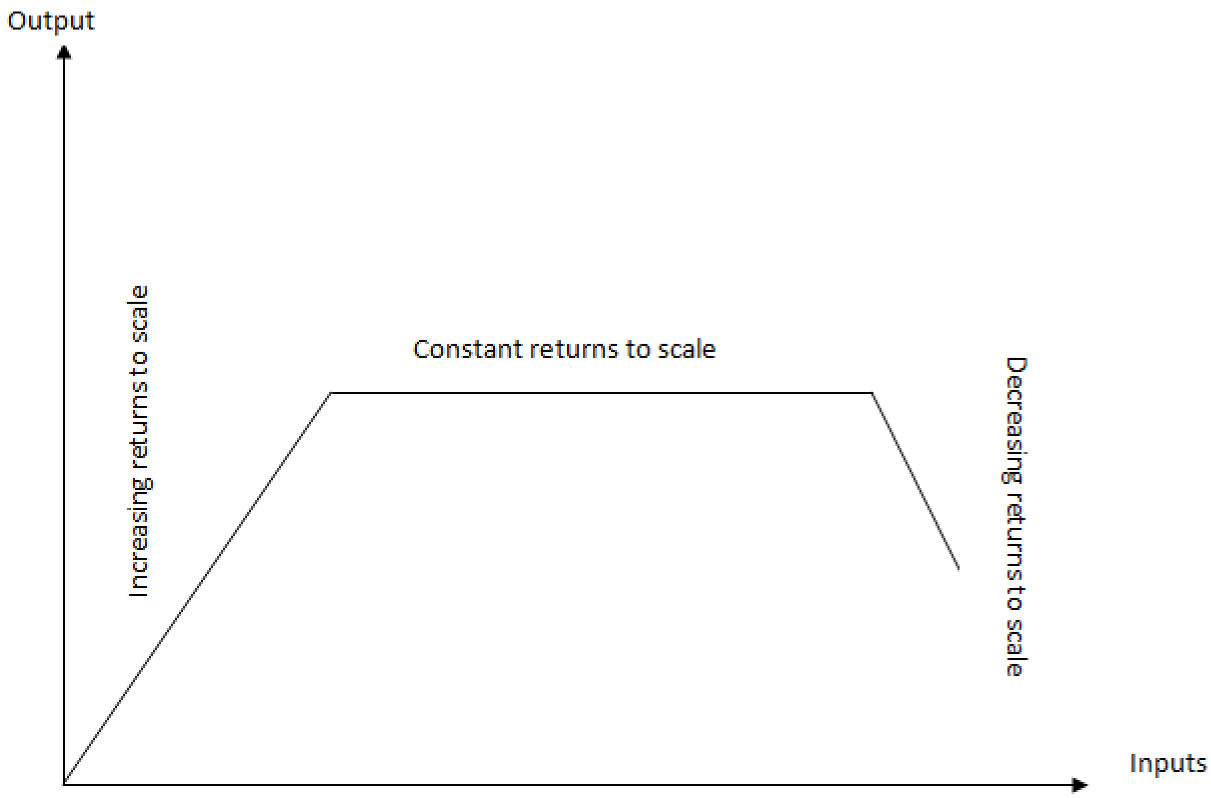
TP =$2L^2$-20L
= 2(25) - 20(5)
= 50 – 100
= -50
The product can’t be negative then ignore negative and therefore TP = +50
MP = â^†TP/â^†L
MP = $2L^2$-20L
= $2(2L)^{(2-1)}$-$20L^{(1-1)}$
= 4L – 20L
= 4L -20
Where L= 5
MP = 4L – 20
= 4(5) – 20
= 20 -20
MP= 0
The marginal product is 0

LAWS OF RETURNS TO SCALE

It states that;

1. An increase in input may lead to more than proportionate increase in output.
2. Decrease in inputs may lead to a proportionate decrease in output.

A GRAPH



3.

Law of increasing returns to scale. If inputs are doubled then the output increases more than the double inputs.

1. Law of decreasing returns to scale occurs if a production increase in inputs leads to less increase in outputs i.e If the inputs are doubled the number of output is less than the double inputs.

CAU``1`````SES OF THE INCREASING RETURNS TO SCALE TO OPERATE.

The reasons for the operation of increasing returns to scale are found in form of economies scale.

1. Labor economies of scale that is economics of specialization and division of labour are possible in large scale production.
2. Technical economies of scale.
3. Marketing economies of scale such as advertising through news papers, TV, magazines.

4. Managerial economies of scale such as specialization of management and division of labour management.
5. Economies related to transport and storage cost ie large scale firm normally their own transport eg large vehicles.

CAUSES OF THE DECREASING RETURNS TO SCALE TO OPERATE

(Dis economies of scale)

1. Marginal dis economies.

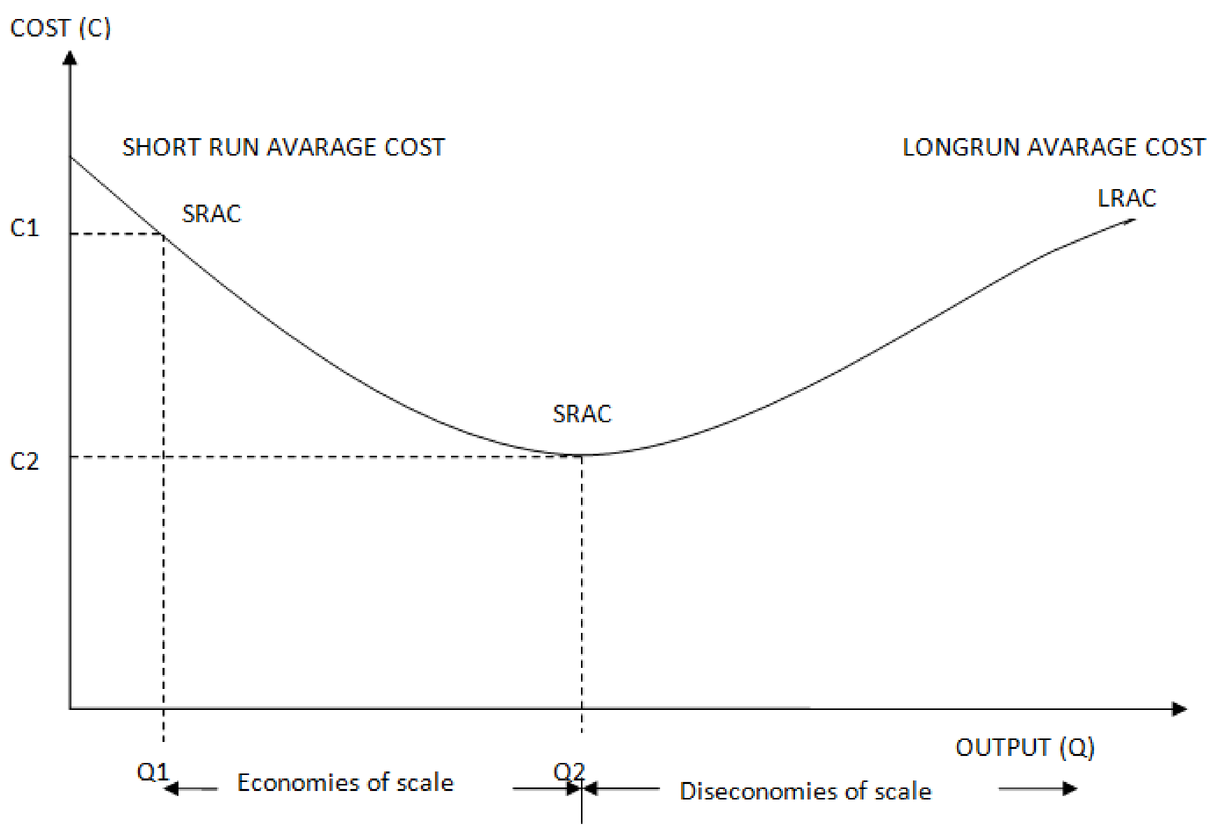
   As a result of increasing managerial dis economies,the decreasing return to scale operates,

2. Exhaustible natural resources.

   SCALE OF PRODUCTION

Refers to the size of the from and the technique employed in production. Divided into two

1. Large scale production.
2. Small scale production



The LRAC curve shows

the lowest cost of producing different levels of output given the firms production function and factor prices.The LRAC curve is an envelope curve to the firms SRAC.

3. **Economies of scale**: Falling long run average cost from C1 to C2 as the scale of output increases.
4. **Diseconomies of scale**:Rising long run average cost as the scale of output increases.

CAUSES OF ECONOMIES OF SCALE

1. To improve production technique (applying up to date technology)
2. Efficiency utilization of resourses
3. Full improvement of resourses
4. Availability of reliable market
5. Effectively and economically useful of capital goods.

Internal economies of scale:are those factors which bring about the reduction in average cost as the scale of production of individual firm rises.
External economies of scale:are result from the simultanous growth or interaction of a number of firms in the same or related industries.These includes specialist companies of supplying and repering machinery.The expansion of an industry leads to the establishment of many firms specializing in a particular stage of production processes.

CAUSES OF DISECONOMIES OF SCALE

1. Weak market linefficiency
2. Leakage of resourses
3. Applying old techniques of production
4. Poor management
5. Unemployment of resources

LARGE SCALE PRODUCTION

Refers to the scale of production in which large output is produced and the amount of inputs used is also large.

MERITS OF LARGE SCALE PRODUCTION

1. Ability to minimize the cost of production and maximize profit e.g buying inputs in large quality,employing advanced technology.
2. Variety of goods due to settled market.
3. Easy to raise capital from financial institutions like commercial banks.
4. Expansion of market through advertising researches.
5. There is ability to increase efficiency in production e.g advanced technology, skilled people,intensive capital.
6. Specialization and division of labour is applicable.

DEMERITS OF LARGE SCALE

1. It involves large cost of administration.
2. Very difficult to make decision. Due to large number of people
3. It needs large capital to start production to employ labour and machines.
4. Managers have less entrance on managing the scale.

Qn.

Why do small scale firms continue to exist side by side with the large scale enterprise?

REASONS:

1. Some small scale firm supply inputs to the large scale firms. The large scale firm plays part as a market for small scale firm.
2. Small extent of the market. The output being produced by small scale firms is easily to be disposed then the output produced by the large scale firms.
3. Small scale firms have control with the customers.
4. Easy management in small scale firms due to small resources than in large scale firm which require complicated economies systems.
5. Simplicity in technique of production.
6. There some cost which small scale producers do not like advertising transport.
7. Decision making.It is quick because it involves one person(owner).
8. Low operating and administrative system.
9. High commandment to owner of the firm.

DISADVANTAGES OF SMALL SCALE FIRM

1. Limited possibility of expansion because of small amount of capital.
2. Large average cost.
3. Can not produce variety of goods. It is risky in case of market decline.
4. Difficult to market the products, due to low advertisement.
5. Inefficient production because of instability of employing very skilled labour.

a. Choice of the appropriate formula and computations

b. Interpretation

DISTRIBUTION THEORY

WAGES

This is a payment paid to labour for its efforts rendered in the production process

Types of Wages

1. **Money or nominal wages**

   This refers to the amount of money received by a labourer for performing a certain work without considering the amount of goods and services worth it.

2. **Real wages**

   Is the wage that is measurable in the amount of goods and services worth it and therefore it considers the purchasing power.

3. **Kind wages.**

   This is the type of wage which is paid interms of physical goods. E.g. in rural areas labourers are at times paid interms of such as grains.

Determinants of Real wages

1. The price level

   The purchasing power of money depends upon the price level. Therefore when the price increases the real wage decreases and the opposite is true.

2. Extra Incomes

   This is an addition to what the labourer earns from other sources which finally results into high real wages.

3. Extra Facilities.

   Laborers receive extra facilities such as housing, medical, education etc. such benefit also increase the real wage of the worker.

4. Working hours.

   When looking at the real wage. Working hours with their distribution leaves and vacations are very important. The less the working hours by provision of leave hours, the higher the real wage.

5. The nature of the work

   If the work is risky, injurious e.t.c to the health of the labourers then the real wage in that case is to be considered low and the opposite is true.

6. Regularity of the work

Real wage will be more in those professions where work is regular and permanent as compared to the jobs of temporary nature.

Systems of Wage Payment

Pieces rate system: This is a system whereby a worker is paid according to the work done.e.g the quantity of output produced.

Advantages

1. More output is produced as workers will aim at producing more to earn more.
2. With this system it is very easy to differentiate between a lazy and a hard working worker by comparing their output.
3. This system does not require close supervision as each worker intends to work harder.
4. It is easy for the employer and the employee to know the amount of payment.
5. Quicker workers can earn more than those who are slow and lazy

Disadvantage

1. Workers may overwork themselves in order to earn more.
2. It is not suitable for kinds of work which cannot be measured quantity wise.
3. More careful workers who aim at producing high quality output may instead be paid less.
4. It may result into fall in quantity due to a rush to produce more.
5. It may result into accidents due to high speed among the workers in an effort to produce more.

Time rate system: This is a system of wage payment which is based on the hours of work by labourers which can be weekly, monthly etc.

1. Workers are assured of regular payments.
2. It is suitable for those types of works which cannot be measured quantitatively.
3. It is easy to calculate the wage payment in relation to the working time.
4. Workers will not rush their work which will result into high quality output.
5. With this system wage rates can easily be adjusted to reflect different skills required to do the job.

Disadvantages

1. Output may be low because workers are assured of a regular payment
2. With this system it is difficult to differentiate between a hard worker and a lazy worker.

3. It requires close supervision to ensure that workers perform their duties.
4. With this system it's not easy to reward extra payment to a hard worker because it is difficult to measure output produced by each worker.
5. The system encourages inefficiency because even the inefficient workers are paid at the end of the month.

Standard rate system: This is a system of wage payment where by all workers engage in similar works is paid the same.

1. **Bonus system**
2. **Profit sharing system**

Wages Differential

It refers to a situation whereby labourers are paid different wages, despite the fact that they may be working in the same firm having the same education level etc.

Reasons for Wage Differential

1. Difference in the level of education.

   Highly educated are paid more than the less educated since they have more skills, more knowledge etc.

2. Difference in the level of trust and responsibilities

   Those who are in the position of more trust are paid more than those employees with low level of trust.

3. Difference in the level of experience

   More experienced workers are paid more than less experienced workers as they are assumed to be more knowledgeable, experienced and more efficient compared to less experienced workers.

4. Difference in the riskiness of the job

   Those workers which perform risky and dangerous jobs are paid more compared to other jobs. These dangerous occupations are such as miners. pilots etc.

5. Difference in Gender

   In some situation males are paid more than female, because males use more energy and most of the works are done by males and not all of them are done by female.

6. Difference in the level of strength.

More energetic workers are paid more compared to less energetic workers. The more energetic a worker he/ she is can be able to perform more work and get more paid

7. Racial factor.

   At times wages differ among workers due to racial factors, where by the whites are paid more compared to the blacks.

8. Differences in the strength of Trade Unions.

   Workers who belong to strong trade unions are normally paid more compared to those who belong to weaker trade unions.

Theories of Wage Determination

1. **Subsistence theory of wages**

   This theory was presented by the physiography and was explained by a German economist Sallee. This theory may be known as **The Iron Law of Wage**

   According to this theory, wages tend to settle at the level which is just sufficient to maintain the worker and his family at a minimum subsistence. If for some reason, wages are higher than this level, it is said that the workers would be encourage to marry, their number would increase by higher birth rate with the large supply of labour brings down the wage to the subsistence level.

   If on the other hand, wages are below subsistence level marriages will be discouraged and ultimately labour supply will decrease, hence wages will rise and reach the subsistence level. This theory has been reflected because it is not realistic.

Criticisms of the theory.

1. The law is applicable to less developed countries where wages are on low subsistence level unlike in more developed country.
2. The theory only looks at increase in birth rates due to increase in wages neglecting other factors such as; early marriages.
3. The term minimum subsistence is vague, because there is nothing like a fixed minimum subsistence as it keeps on changing.
4. The theory is also unable to explain reasons for differences in wages.
5. It is not always true that increase in wages is always accompanied by increase in the population size

Wages Fund Theory

This theory is associated with the name of J.S. Mill. According to him, a wage fund is created and the wages are paid by the employer out of this fund. According to this theory, wages depends on two quantities:-

1. The wages fund set aside by the employer for the payment of wages and
2. The number of labourers seeking employment. The actual rate of wages can be found by dividing the fund by the number of workers.

According to this theory, wages cannot rise unless either the wage fund is increased or the number of working class people decreases.

Criticism of the theory

1. In real world there is nothing like a fixed wage fund as firms set wages according to the level of production.
2. The theory does not explain the method used in determining the wage fund.
3. The theory does not explain reasons for wage differentials among labourers.

Residual Claimant Theory.

This theory was advanced by the American economist John Walker.

According to him, wages are the residue left over after other agents of production have been paid. Rent, interest and profit, according to him are determined by definite laws. Out of the total production.When payments have been made to other factors, it is said that the whole of the remainder will go to workers.

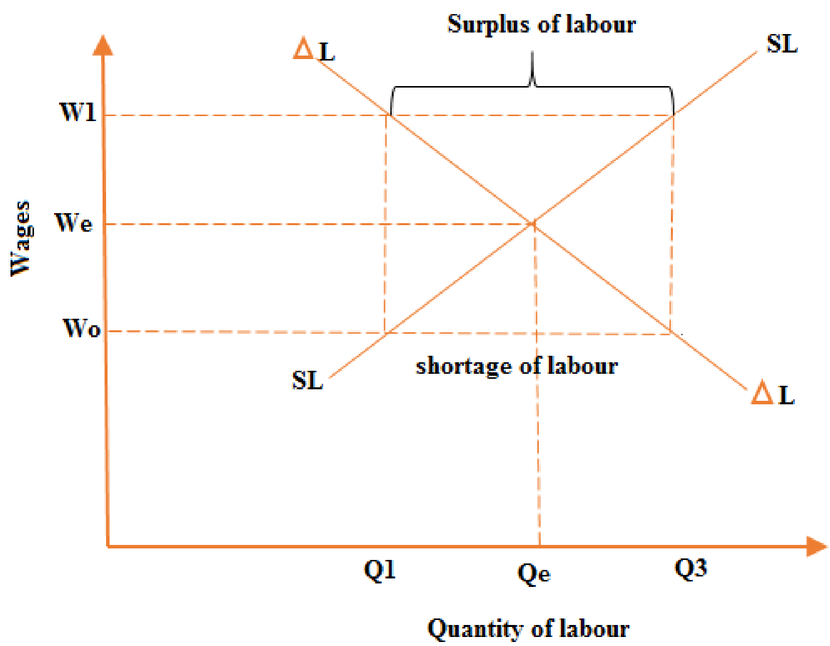
This theory has also been rejected by most economists. It does not explain how trade unions are able to raise wages. Moreover, it is not the worker who is the residual claimant but the entrepreneur. The theory also ignores the influence of labour supply in wage determination.

Market theory of Wages.

According to this theory wages are determined by the interaction of demand & supply of the labour in the market and therefore the wage rate would be determined at the point of interaction of demand and supply curve for labour in the market.

Demand for labour is derived demand.Therefore when there is increase for demand of goods and services producers will demand more labour and the opposite is true.

Supply for labour refers to the number of labourers willing to work at the prevailing wage rate per period of time and it depends on factors such as population size, population composition etc.



From the above graph, Q_e W_e is the equilibrium wage rate.

Above that wage, demand for labour will be less than supply labour and hence surplus, labour but however that wage, demand for labour will exceed supply of labour and hence a shortage.

Marginal Productivity Theory

According to this theory a factor of production specifically labour should be paid according to its marginal productivity.

Marginal productivity is the additional output produced by an additional labour employed.Therefore a labour is paid according to his contribution (marginal product) to the firms total output. The higher the marginal productivity of the labourer, the higher the wage and the opposite is true.

If the employer pays a labourer more than the value of his marginal productivity it will instead result in to a loss.

Assumptions of the Theory.

The theory is based on the following assumptions:-

1. All units of labour are homogeneous.
2. The theory assumes that marginal productivity of any factor can be measured
3. It assumes perfect mobility of factors of production eg.Labor
4. The theory assumes operation of the law of diminishing returns.

5. The theory also assumes that wages are only determined by marginal productivity of labour.

Criticism of the Theory

1. In reality it is not true that all factors such as labour are homogeneous as it differs interms of strength, experience, skills etc.
2. Perfect mobility of factors of production eg. labour as at time limited by factors such as old age, fear to lose family ties.
3. The theory only looks at the demand side of labour neglecting the supply side of it
4. Increased wages can as well be determined by other factor besides marginal productivity such as level of experience, education and training.
5. In reality it is also difficult to measure marginal productivity of labour
6. It is also not true that the productivity of labour depends on the labourer himself but however depends on the efficiency of other factors.

1. **Bargaining theory of Wages.**

According to this theory wages are determined according to the bargaining strength of the labourers through their trade unions. Trade unions represent labourers to the management to discuss wage improvement and working conditions. Therefore the stronger the bargaining power, the higher the wages and the opposite is true.

Trade Union is an association of workers that aims at advocating for better payment and better working conditions.

It has been defined by Prof. Webb in the words "A Trade union is a continuous association of wage earners for the purpose of maintaining and improving the conditions of their employment."

Method used by trade unions

1. Collective bargaining: This is when the trade union leadership represents a group of workers in negotiation with the management about interests of the workers and the general improvement in the working conditions.
2. Striking
3. Go slow tactics
4. Sabotage (creates a bad image of the company)

FUNCTIONS OF TRADE UNIONS.

1. To demand for increase in wages.
2. Improvement in working conditions.
3. Helps to fight job loss.
4. Helps to fight unfair dismissal.
5. Helps to protect against any kind of discrimination.

6. Trade unions help to advice the government in number of issues such as employment policies, wage determination etc
7. Trade unions help in improving the skills of its members through organizing seminar workshops etc.

Strength of the Trade Unions

Strength of the trade union depends on the extent at which a trade union is able to achieve its objective. Strength of the trade union will depend on the following factors.

1. Unity among members.

   When there is unity among members, there is strength of the trade union because they tend to have a common stand.

2. The rise of membership

   The bigger the membership the more strongly the trade union because they contribute more ideas and the voices is high.

3. Financial position of the trade union.

   When the financial position of the trade union is high the more the stronger the trade union because it can open up more branches and can run up all the financial activities of the business.

4. The(impacts) level of inconvenience of trade union

   The more the impact of the trade union activities,the stronger the trade union and the opposite in true

5. The labour laws of the Country.

   If the labour laws are supporting and protecting the interest of the labourers then the trade union will be strong and the opposite is true

6. Trade union leadership.

   If a trade union is led by committed and competitive leaders, he tends to be stronger as compared to one led by leaders who aim at fulfilling their own objectives.

Problems faced by Trade Unions in poor countries.

1. Lack of enough funds which tend to limit the operation of the union.

2. Government interferences in the activities of the trade union e.g. Setting restrictions on their operations.
3. Lack of enough co-operations among members.eg. Some do not pay membership subscription or fee.
4. Poor management and administrators who use trade union as a stepping stone as a base to achieve their own objectives
5. Tribal differences which tend to affect mobilization of members.
6. In many low developed countries, the government is the major employer and on many times resists to request from trade unions.

Factors that Determine Wages

1. The level of experience.
2. Level of education.
3. Government policy (minimum wage).
4. Level of responsibility.
5. The demand of the labour and supply as well.
6. Level of strength.
7. Level of productivity.
8. Costs of living.
9. Riskiness of the job given

II. **Rent**

Rent is a reward to the land lords for use of the land there it is the price of land.

In economics, rent is defined as a payment made to the land lord by the tenants for the use of their land.

In ordinary sense rent is defined as a periodical payment made for use of items such as house, a bicycle, and a car and so on.

Theories of Rent

There are two main theories of Rent

1. Ricardo theory or Ricardian theory.
2. Modern theory or demand and supply theory.

1. Ricardian Theory of Rent

This theory was put forward by David Ricardo and in his ideas he defined Rent as, "That portion of the produce of land which is paid to the land lord for the use of the original and indestructible process of the soil." In other words Ricardo considered rent as a return to the landlords from the use of their land.

In his opinion Ricardo stated that rent is only applicable to land and not any other factor of production because land possesses unique features being a free gift of nature and having fixed supply. He also emphasized that land possesses some power which are free and indestructible and this is what referred to as the fertility power of soil, but however such fertility is not uniform to all portion of land, therefore some portions have high fertility and other low and hence basis of rent.

Ricardian theory has two elements

The first element is that rent arises due to the reasons that certain lands are more fertile as compared to other lands and in this way, surplus production occurs due to the difference in the fertility of land and it is called **differential surplus** or **differential rent**

The second element is that land is scarce and rent arises due to the security of land. According to Ricardo, the superior lands will pay scarcity rent at the same rate as the inferior lands but they will also pay a differential rent.

The Theory is based on the following assumptions:-

1. Land has a fixed supply.
2. Fertility differs among different portions of land.
3. He also assumed the law of diminishing returns to operate.
4. It is also assumed that land possesses original and indestructible power of the soil
5. Basing on all the above Ricardo concludes; that difference in rent among different portions of land depends on the superiority of the fertility and therefore more fertile land will fetch more rent than the less fertile.

Criticism of the Theory

1. In reality rent does not arise because of fertility but because land is scarce.
2. Rent is not only applicable to land but even to other items such as car, bicycle.etc
3. The law of diminishing return which was assumed to operate can be checked by modern methods of agriculture eg. use of fertilizers
4. It is also not true that there is such original and indestructible power of soil since fertilized soil tend to lose fertility after being used for a long period of time.
5. Land can as well be used for various uses besides cultivation. It can as well require to pay rent eg construction of commercial buildings.

1. **Modern Theory of Rent**

Under this theory rent is determined by its demand and supply.

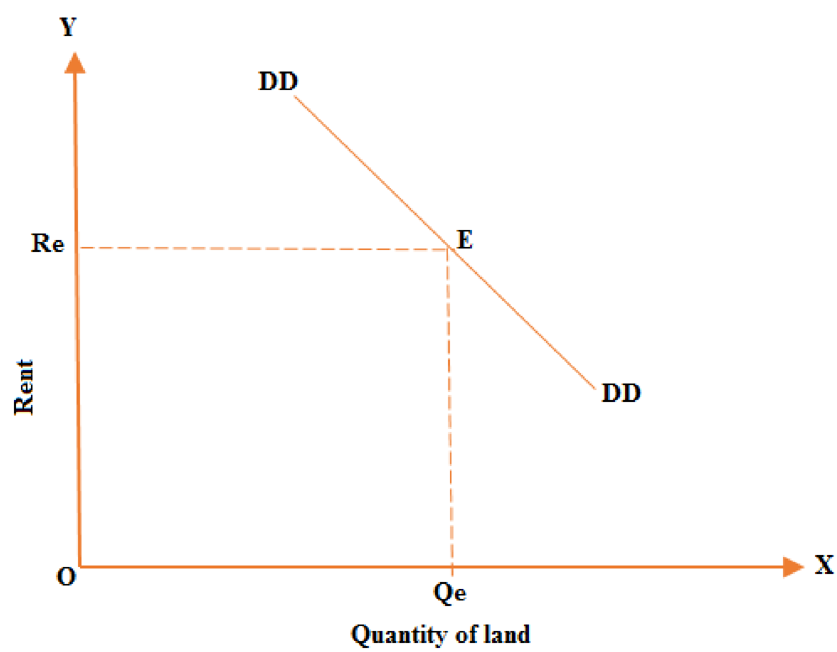
Demand for land

Demand for land is derived demand by individuals and the economy as a whole. When there is more demand from products of land demand for land increase and the opposite is true.

Supply of land

On the other hand supply of land is fixed (perfectly inelastic) meaning that the supply of land can neither increase nor reduce when rent increases or decreases.

Basing on the above rent will be determined at the point of interaction of the demand and supply curve for land



From the above Ore is the equilibrium rent determined when demand and supply curve for land meet at point E.Therefore when demand for land increases rent will also increase and the opposite is true.

TRANSFER EARNINGS, ECONOMIC RENT AND QUASI RENT

This is the amount of money that any particular unit of a factor eg. labour could earn in its next best paid alternative use or employment.

Transfer Earnings means to the minimum amount that any unit of a factor eg. labour must earn in order to precept it from transferring to another alternative use. This means that any reduction in the actual earnings below the transfer earnings would cause the factor to transfer to the next best alternative use or employment.

Therefore transfer earnings are the minimum amount of money that must be paid to a unit factor in order to hold in its present use. E.g. if a labour is paid 70,000/= month in his current employment but would earn 60,000 in his next alternative employment then 60,000 is the transfer earnings. In order for the employer to retain his employee he should pay him a minimum of at least 60,000 or more.

ECONOMIC RENT

This is the surplus earning to factors of production eg. labour over its transfer earnings.

Economic Rent is therefore the excess payment over and above the transfer earnings. Eg. if a labour currently earns 70,000/= at the current employment but could earn 60,000/= in the next best alternative employment then 10,000 is the economic rent.

Economic Rent = Actual earnings – Transfer earnings

Economic Rent = 70,000 – 60,000 = 10,000

QUASI RENT

This refers to short run earnings to those factors of production which are man made. E.g. machines, buildings etc whose supply is fixed in the short run.

Unlike land whose supply is fixed both in the short and in the long run factor such as machines, buildings and other there supply is inelastic in the short run but elastic in the long run

Because of their inelastic supply in the short run when demand increase, their income also increases and hence able to earn a surplus. The surplus earned is however temporary as their supply becomes elastic in the long run. When the supply increase in the long run and adjusted to demand their surplus earnings disappears. In summary quasi rent is the income earned by man made factors such as machines, building etc. whose supply is inelastic in the short run but elastic in the long run.

III. **Interest**

This is the price for the use of money capital borrowed. Therefore interest is the reward for capital owners from the capital land out.

Interest rate is the price on borrowed capital which is the percentage of the amount borrowed is normally charged annually.

Gross Interest means the total amount which a debtor pays to a creditor and the net interest is that part of the payment which is for use of capital only.

Reasons why interest is charged on capital

1. Capital increase productivity
2. Is the payment for risk involved in lending out
3. Payment for inconvenience involved when lending out
4. Cost of administering the credit eg. keeping records.

Reasons Why Interest Rate Differ Among Borrowers

1. The amount of loan

   The bigger the amount borrowed, the higher the interest to be charged, higher risk involved and the opposite is true.

2. The repayment period.

   For a shorter repayment period the less will be the interest rate as it is to a longer repayment period.

3. Demand & Supply of Capital

   When demand capital is higher than its supply interest will be high. However when demand for capital is less than its supply interest will be low.

4. Credit worthiness of the borrower

   If the borrower is more credit worth interest charged will be low the opposite is true.

5. Difference in distance between the lender and the borrower

   When the distance between the lender and the borrower is big, interest high because of high administration cost and the opposite is true.

6. The purpose of the loan

   High interest rates are normally charged for unproductive loan compared to productive loan, for example; investment loans.

7. The Inflationary Condition

   During Inflation the interest rate is high due to the value of money is low and during the period of deflation, the interest rate is charged because the value of money is high.

Theories of Interest are of two kinds:-

1. Those theories which relate to the problem why interest is paid.
2. Those theories which relate to the problem how rate of interest is determined.

WHY INTEREST IS PAID?

The following theories explain why interest is paid:-

1. Marginal Productivity Theory
2. Waiting Theory
3. Austrian Theory
4. Liquidity Preference Theory
5. Fisher's Time Preference Theory

1. **Marginal Productivity Theory**

According to this theory, interest is paid due to the reasons that capital is productive with the help of capital; it is possible to increase the production of commodities to great extent. Capital is productive in the sense that labour assisted by capital produces more than without capital. E.g. fisherman can catch more fish with a net than without it.

But this theory does not explain the concept of interest properly because if people were willing to lend unlimited amount of money without interest, a business would expand up to a point where the falling price of the product would simply cover other charges in making their off. Interest which every entrepreneur must keep in view. This is due to the reason that interest is paid on capital because demand for capital is greater than supply capital it is scarcity rather than productivity which explains interest.

2. **Waiting Theory or Abstinence Theory.**

Another theory of interest is the abstinence theory. It was presented by Prof. Senior. According to him, saving involves a great sacrifice or abstinence, because saving is an act of abstaining from the consumption since to abstain is painful, it was necessary to reward people for this act. This reward was in the form of the interest paid to those who saved rather than consumed their income or a part of their income.

Marshall used the term waiting instead of abstinence.According to him saving implies waiting. When a person saves, he does not refrain from consumption forever, but he has to ward since most people do not like to wait an inducement is necessary to encourage this postponement of consumption and interest is this inducement.

This theory has a considerable element of truth in it but it does not clearly analyze the force acting on the side of demand for capital.

3. **Austrian or Agro Theory**

This theory is also called the **Psychological theory of interest**. It was first advanced by John Rae in 1834. But it was presented in the final shape by Prof. Bohm Bawerk of the Austrian School of Thought.

According to this theory interest arises because people prefer present goods to future goods. This is due to the reason that present wants are felt more seriously as compared to future wants and in this way, present satisfaction is attached greater importance than the future satisfaction.

Interest is the discount which must be paid in order to induce people to lend money or postpone present satisfaction to a future date.

Why do people prefer present satisfaction to future satisfaction? Bohm Bawerk gave three reasons for this fact.

1. The future is uncertain.
2. Present wants are felt more seriously than the future wants.
3. Present goods possess a technical superiority over future goods.
4. Fisher's Time Preference Theory.

This theory was put forward by Professor Irving Fisher. In his view he stated that interest rate is as a result of eagerness to spend on the present consumption rather than the future consumption. People always put a lower value on future goods rather than present goods. It is up on this that they are more eager to spend their income on present consumption other than future consumption. Basing on this if a person lends to another he has to forego his present consumption and this will require him being offered a reward which is called interest.

He also stated that the more the eagerness to spend on present consumption the higher will be the interest rate and the opposite is true.

Criticisms of the theory

1. The theory assumes no difference between present and future purchasing power which is wrong as in the real world the purchasing power of money goes on changing.
2. The supply of capital in a country does not only depend on the eagerness to spend but however it even depends on other factors such as number of financial institutions.
3. The theory is one sided whereby it mainly looks at the supply-side of capital ignoring the demand side of it.
4. Fisher's theory is very general as it fails to show the influence of financial institutions on the rate of interest.
5. **Liquidity Preference Theory**

According to Keynes, interest is not a reward for waiting, nor is it a payment for time preference. The rate of interest is a reward for parting with liquidity. In other words, people have a demand to hold money in cash form. In order to induce people to part with liquidity, they must be paid a reward in the form of interest. The rate of interest depends upon the degree of liquidity preference. The greater the liquidity preference, the higher the rate of interest and vice versa. This theory sounds more realistic

HOW IS RATE OF INTEREST DETERMINED?

1. Classical Theory
2. Loanable Fund or New Classical Theory
3. Keynesian or Liquidity Preference Theory

Classical Theory.

The classical theory of interest is also called the real theory of interest.

According to this theory, the rate of interest is the payment for assistance or waiting or time preference. The rate of interest I this theory is determined by the demand for capital and supply of savings.

Demand for capital.

The demand for capital goods comes from the firms which desire to invest. Capital goods are demanded because they can be used to produce consumer goods. If the demand for consumer goods is greater capital like other factors of production has marginal revenue productivity.

If capital goods are greater than the marginal revenue productivity will be lower and vice verse. Therefore, the marginal revenue productivity curve of capital slopes downwards towards the right.

Thus we conclude that demand for individual capital goods and for capital goods in general will increase as the rate of interest falls.

Supply of savings

According to this theory, the money which is to be used for purchasing capital goods is made available by those who save from their current incomes. Saving involves the element of waiting for future enjoyment of saving. But people prefer the present satisfaction of goods and services to the future enjoyment of them. There, if people are to be persuaded to save money and to lend it to the entrepreneur, they must be offered to some interest as reward. If reward for saving is higher, individual will be induced to save more and vice verso. The supply curve of capital slopes upwards toward the right.

The rate of interest is determined by the interaction of the force of demand for capital and the supply of savings. The rate of interest at which the demand for capital and supply of savings are in equilibrium will be determined in the market.

Criticism of the Theory.

According to the classical theory of interest, more investment can take place only by decreasing consumption but a decrease in demand for consumer goods is likely to decrease the incentive to produce capital goods and therefore it will affect investment adversely.

By assuming full employment, the classical theory has neglected the changes in the income level. According to Keynes, equality between savings and investments is brought about not by changes in rate of interest but by changes in the level of income.

Classical theory as pointed out by Keynes is indeterminate. Position of the savings schedule depends upon the income level. There will be different savings schedule for different levels of income.

Loanable Funds Theory

It may also be called Neo classical theory. According to this theory interest is the price paid for the use of loanable funds and also rate of interest is determined according to the forces of demand for and supply of loanable Funds. There are several sources of both supply and demand of loanable funds.

Supply of Loanable Funds.

It is derived from four basic sources namely (a) savings (b) dis hoarding (c) bank credit (d) Dis- investment

1. **Savings: (S)**

   Saving by individuals contributes the most important source of loanable funds. At a higher rate of interest, saving will be greater and vice verse.

2. **Dis hoarding: (DH)**

   It is another source of loanable funds individual may dis hoard money from the horded stock of previous period. At higher rate of interest, more will be dis hoarded and vice verse

3. **Banking credit: (BM)**

The banking system provides a third source of loanable funds. Banking by creating money can advance loans to the businessmen. The banks will lend more money at higher rates of interest than at lower ones.

4. **Dis Investment: (DI)**

   Dis investment is the opposite of investment and takes place due to some reasons the existing stock of machine and other equipment is allowed to wear out without being replaced or when the inventories are drawn below the level of previous period. When this happens, the part of the revenue from the sale of product instead of going in to capital in to capital replacement flows in to the market for loanable funds.

DEMAND FOR LOANABLE FUNDS.

The demand for loanable funds comes mainly from three fields,

Investment (b) consumption (c) hoarding

1. Demand for loanable funds for investment purpose by business firms is the most important element of total demand for loanable funds.

   The price of the loanable funds required to purchase the capital goods is oily the rate of interest. It will pay businessman to demand loanable funds up to the point at which the expected rate of return on the capital goods equal the rate of interest. Business on will fund it profitable to purchase large amounts of capital goods, when the rate of interest declines. Thus the demand for loanable funds curve for investment purposes slopes down wards to the right. This is represented by the curve I

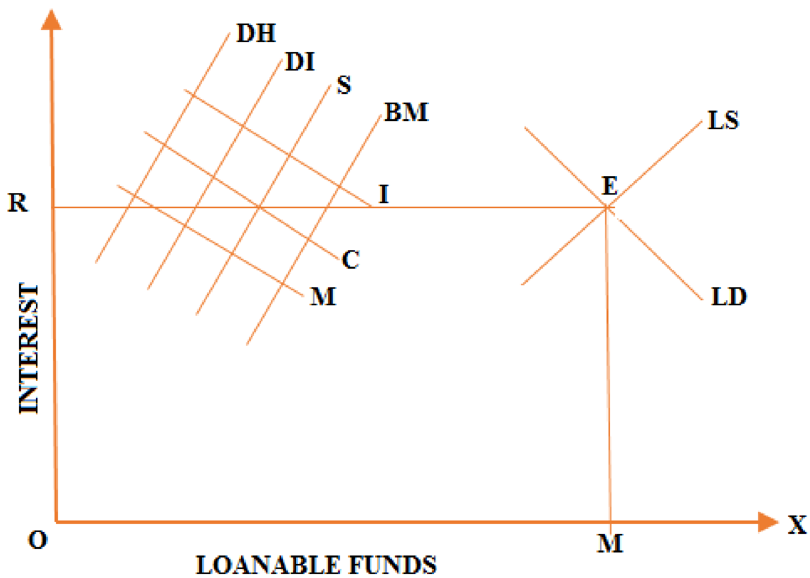
2. Consumption

   The second big demand for loanable funds comes from individual who want to borrow for consumption purposes. Individual demand loanable funds when they wish to make purchases in excess of their current incomes and cash resources. Lower rate of interest will encourage some increase in consumer borrowing. Demand for loanable funds for consumption purpose is shown by the curve which also slopes downwards to the right.

3. Hoarding

   The demand for loanable funds may come from those who want to hoard money. Hoarding signifies the people desire to hoard their saving as idle cash balance. Demand for hoarding is represented by curve of it. The demand for hoarding money also slopes downwards to the right

   According to loanable funds theory, the rate of interest will be determined by the equilibrium between total demand for loanable funds and total supply of loanable funds as shown in the following diagram.



In the above diagram, LS is the total supply curve of loanable funds. It has been derived by the later summation of the saving curve (S), dis hoarding curve (DH), Bank total credit curve (BM) and dis investment (DI). Total demand curve for loanable funds is LD which has been found out by the later summation of the curves**, I, C** and **H** which show respectively the demand for loanable funds for investment, consumption and hoarding purpose.

The curves LD and LS interest each other at Point E and in this way the equilibrium rate of interest is OR.

The theory has been criticized in the same way classical theory has been criticized. In fact there isn't much difference in the classical and loanable funds theory. The difference is only in the meaning of savings.

Loanable funds theory like classical theory is indeterminate

1. **Keynesian Theory**

It is also called **the liquidity Preference Theory**. It was presented by Keynes. According to him, "Interest is the reward for parting with liquidity for a specific period."

According to him, interest is a monetary phenomenon in the sense that the rate of interest is determined by the demand for and supply of money. The rate at which interest will be paid depends on the strength of the preference for liquidity in relation to the total quantity of money available to satisfy desire for liquidity. Hence the greater the desire for liquidity, the higher the rate of interest and vice verse. Liquidity preference means the demand for money to hold it in cash form. Liquidity preference of a particular individual depends up on several consideration individual keep money in liquid form due to the following three motives;-

1. **Transaction Motive.**

   It relates to the demand for money or the need cash for the current transaction of individual and business exchanges. Individual holds cash in order to bridge the interval between the receipt of income and its expenditure. This is called the Income Motive.

   The businessmen and the entrepreneur need money all the time in order to pay for raw materials and transport, to pay wages and salaries and to meet all other current expenses in curved. This is called the business motive for keeping money

2. **Precautionary Motive**

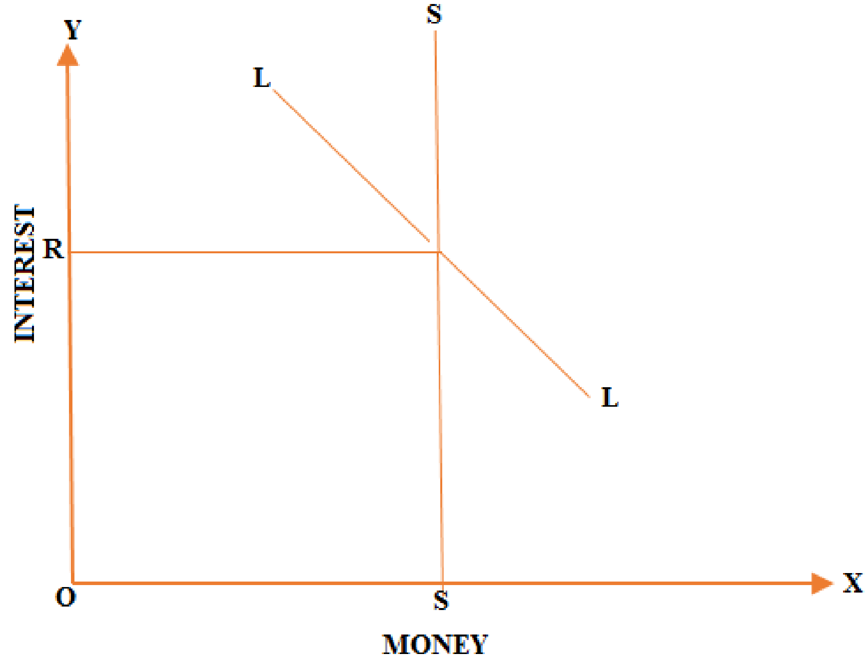
   Precautionary motive for holding money refers to the desire of the people to hold cash balances for unforeseen contingencies like;-sickness, accident and so on. The amount of money for this purpose depends on the nature of the individual and on the condition in which he lives.

3. **Speculative Motive.**

   Relates to the desire to hold one's resources in liquid form in order to take advantage of the market movement regarding the future changes in the rate of interest or bond price.

   According to Keynes supply of money is not affected by the rate of interest and it remains constant in the short period.

   According to Keynes the rate of interest is determined at that point where demand for money is equal to supply of money or in other words where Liquidity curve and supply curve intersect each other



Criticism of the theory.

Keynes ignores saving or waiting as a means or source of invertible fund.

To part with liquidity without there being any sawing meaningless

The Keynesian theory only explains interest in the short run. It gives no due to the rates of interest in the long run.

The borrower's intention is not so much to reward parting with liquidity so as to get a return on investment.

Liquidity preference is not the only factor government the rate of interest. There are several other factors which influence the rate of interest by affecting the demand for and supply of invertible funds.

Keynes makes the rate of interest independent of the demand for investment funds. Actually it's not so independent.

Liquidity preference theory does not explain the existence of different rate of interest prevailing in the market at the same time. Owing to the perfect homogeneity of cash balance, the rates of interest have to be uniform.

Profit

Profit is the reward to the entrepreneur for his basic function such as bearing risks of the business.

Profit is the surplus of total revenue over expenses ie. **â•¥** = TR – TC

Gross profit is the total amount which is received by the entrepreneur.

Net profit is that part of gross profit which is the reward for organizational services.

Characteristics of Profit

1. Profit is a residual reward
2. It is the left over after all other business expenses have been paid
3. Profit is not contractual like rent, wage and interest.
4. Profit is under trained unpredictable can be there or not
5. Profits fluctuate
6. Profit can be negative but other rewards can never

Functions of profit

1. Profit is a source of capital through investment/entrepreneurship.
2. Is a source of revenue to the government through taxation.
3. It is an indicator of good performance of the company.
4. Profit encourages investment.
5. Profits are important to the entrepreneur when making decisions on resource a location.

Theories of profit

1. **Rent theory of profit**

This theory was presented by American economist Prof. Walker. According to this theory, profit determined just as rent is determined. According to Prof. Walker profit is the rent of ability just as there are different grades of land, there are different grades of entrepreneur. The superior entrepreneurs can earn more as compared to less efficient entrepreneur and profit arises due to the reasons that superior entrepreneurs have some surplus production over the cost of production. In this way profit is the reward for differential ability of the entrepreneur over the marginal entrepreneur or the non- profit entrepreneur. Profits are thus like rent and they do not enter into price.

Criticism of the Theory.

According to the modern economist, there may not be any marginal entrepreneur or non-profit entrepreneur because all entrepreneurs can earn something.

The theory does not explain the real nature of profit.

2. **Wages Theory of Profit.**

This theory was presented by Prof. Taussing and Devenport.

According to this theory, profits are determined just like wages because according to this theory organization is a superior kind of labour and the reward for the services should be determined according to the wages determination theory.

Criticism of the Theory

- Profits are essentially a reward for taking risks but labourer takes no risks. His reward or wage is primarily for the labour performed by him.
- Wages are paid in advance. Conversely entrepreneur has to take the responsibility of profit or loss.
- The partner of limited firms receive profit but they do not undergo any physical exertion

1. **Marginal Productivity Theory.**

According to this theory profit are determined according to the marginal productivity of the entrepreneur. The marginal productivity is greater due to the reason that the supply of the entrepreneur is short as compared to their demand. As a result of this, profits are also high.

The marginal productivity theory does not help to explain fully how the profits are determined.

2. **Dynamic Theory of Profit**

This theory was presented by Prof. J.B Clark. According to this theory, profits occur due to the reasons that the circumstances are always changing. It is stated that in a static world where the size of the population, the amount of capital, the quantity and quality of human wants, the method of production, technical knowledge etc remain the same profit tend to disappear under the force of competition. Profits represents the difference between selling price and cost. It is a surplus above cost and when there is perfect competition this surplus disappears because when the world is static and everything is known and knowable, there will be risk and no uncertainty and hence no profits. But according to J.B Clark, we are involving a dynamic world and some changes are constantly taking place. A clever entrepreneur forces these changes and by producing new things he can earn profit. It is only because the world is dynamic.

3. **Risk Bearing Theory of Profit**

This theory of profit is associated with the name Prof. Hawley.

According to this theory, profit is the reward for risk and responsibilities which are come by any entrepreneur. The greater the risk, the higher must be expected gain in order induce entrepreneurs to start the business.

According to carver, profit does not arise due to the reason that risk are taken by the entrepreneur by because the superior entrepreneur are able to reduce them.

4. **Uncertainty Bearing Theory of Profit**

This theory was presented Prof. Knight. According to this theory it is uncertainty bearing rather than the risk taking which is the special function of the entrepreneur and leads to profit. According to Knight risks are of two kinds:-

1. There are certain risks which can be unforeseen, eg. accidents like fire
2. There are certain risks which are not possible to foresee

Risks of the first kind are borne by the insurance companies.

As regards the risks of the second category, these are borne by the entrepreneur. Prof. Knight Calls them not risks but uncertainty. The term risk is applied to those dangers which can be known and foreseen. The entrepreneur gets remuneration for bearing uncertainty. The firm's risk is applied to those dangers which can be known and foreseen. The entrepreneur gets remuneration for bearing uncertainties and nothing for the risk which have been foreseen.

Like other factors of production, uncertainty bearing has a supply price because no entrepreneur will be induced to face the uncertainty unless a certain return is expected.

Criticism of the theory.

i) Uncertainty bearing cannot be elevated to the status of a factor of production.

ii) Uncertainty bearing is not the sale function of the entrepreneur.

iii) Uncertainty is not the only factor that limits the supply of entrepreneur. Lack of funds, lack of knowledge and lack of opportunities are some of the factors that restrict the supply of entrepreneurs.

Types of Profits

1. **Normal Profit or Zero Profit TR = TC.**

This is a return which is just necessary to cover all its cost of production. Normal profits exist when TR = TC therefore it can be called zero profit.

2. **Super normal Profit**

These are profits which are above the normal profit. They exist when TR is more than TC, therefore it can as be called Abnormal profit.

THEORY OF DEMAND

- Demand refers to quantity of the goods and services consumers are able and willing to purchase at the prevailing price in a given period of time.
- According to Bober "By demand we mean the various quantities of a given commodity or service which consumers would buy in one market in a given period of time at various prices or at various incomes, or at various prices related goods.
- From the point of view of the seller, the demand price is the average revenue (revenue per unit) or income he expects to earn from the sale of unit of a commodity. Thus, demand price is identical with average revenue (AR). That is why; the demand curve is also drawn as AR curve.

The law of demand states that "The higher the price the lower the demand, the lower the price the higher the demand, other factors remaining constant.

Assumptions of the law of demand

The law of demand operates when all factors affecting demand apart from the price of the commodity are kept constant, therefore the following are the assumptions of the law of demand;-

1. No change in the level of distribution of income
2. The consumer's level of income remains the same
3. Population size remains unchanged
4. The prices of other related goods remains the same
5. There is no change in taste and preferences
6. The level of advertisement remains the same
7. The level of income tax remains unchanged.

The Demand Schedule

This is the table that shows different price levels and the corresponding quantities demanded of the commodity

Price of milk per ltr in Tshs.	100	200	300	400
Quantity demanded of milk in ltrs	8	6	4	1

Types of Demand Schedule

1. **Individual demand schedule** -This is the type of table which shows different quantities demanded of the commodity by an individual
2. **Market demand schedule**- This is the table which shows different total quantities demanded of the commodity at different prices in the whole market.

NOTE. In order to get a market demand schedule we add up individual demand schedules.

Price of milk per ltr	Qty demanded milk by John in ltr	Qty demanded of milk by Jane ltrs	Market demand
100	8	6	14
200	6	4	10
300	4	2	6
400	1	1	2

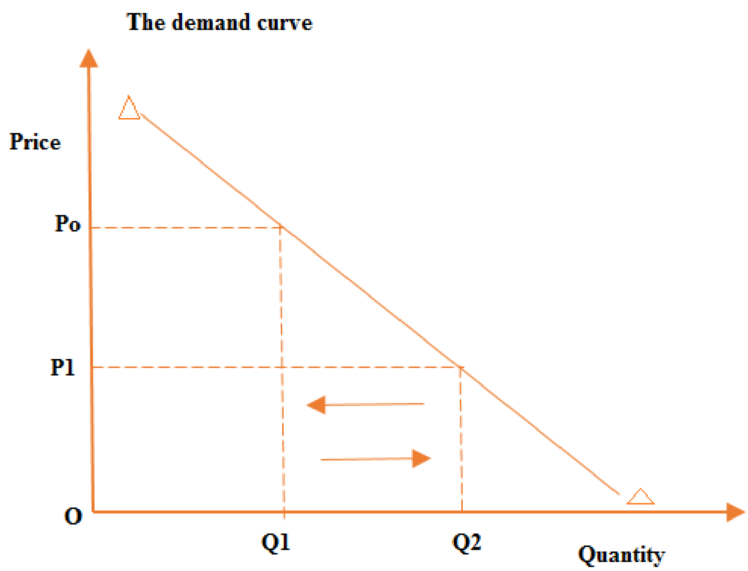
Assuming there are two buyers in the market for milk, John and Jane, the market demand schedule will be derived as above

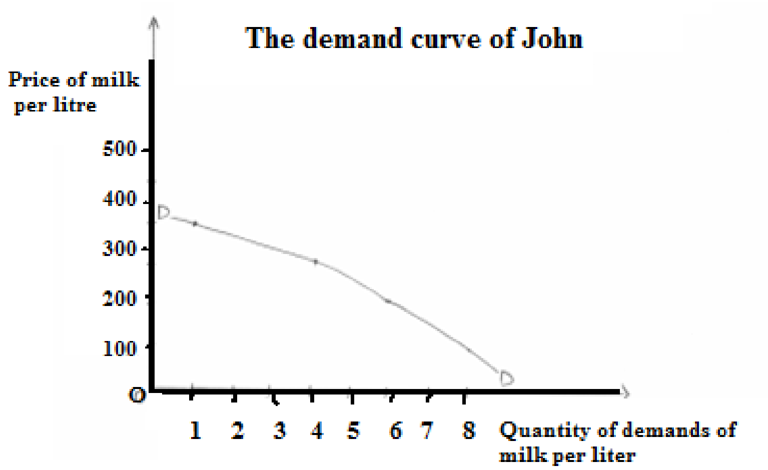
The Demand Curve

This is a graphical presentation of the demand schedule showing the relationship between price of the commodity and its demand.

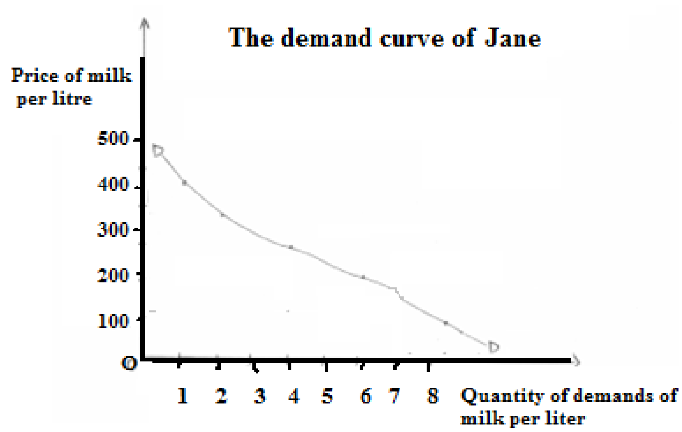
A demand curve has a negative slope and its slopes downwards from left to right showing that as the price decrease the quantity demanded increases, other factors remaining constant.

The demand curve

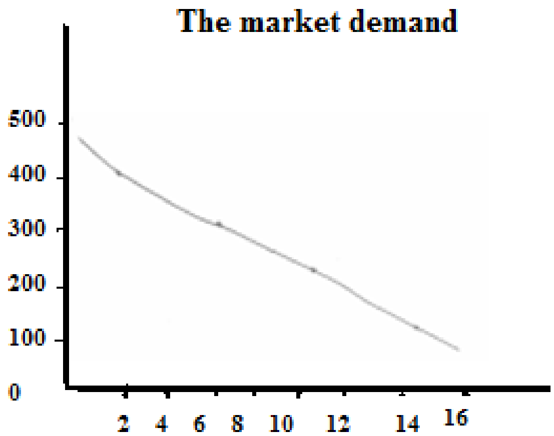




The demand curve of Jane



The market demand curve



FACTORS AFFECTING DEMAND

Demand of a good or service will be high or low depending on the following factors;-

1. **The price of the commodity.**

   When the price of the commodity is high the demand will be low, and when the price of low demand will be high, other things being constant.

2. **Population size**

   The demand on an area with high population will be high while the demand of the area with low population will be low.

3. **Consumer's level of income**

   When the consumer's level of income is high, the demand will be high as the consumer's ability will be high. However the consumer's level of income is low, the demand will also be low as the consumer's ability will be low.

4. **Level of advertisement**

   The commodity which is extensively advertised will be highly demanded, while the commodity which is not advertised the demand will be low.

5. **Tastes and Preference.**

   If the commodity is favored, people's taste and preference, the demand will be high while the commodity which is not favored by people's tastes and preference the demand will be low.

E.g. the demand of Hi-jab in Saudi Arabia is higher compared to the demand in USA.

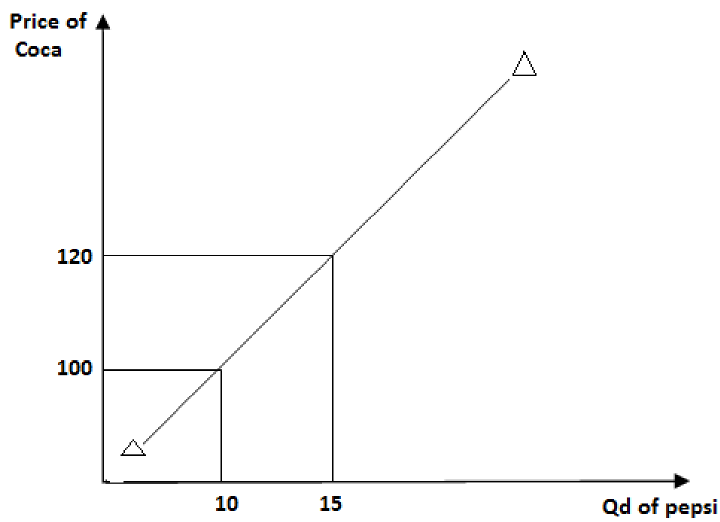
6. **The level of Taxation.**

   When the income tax charged is high, demand will be low and when the income tax is low, demand will be high, in which the disposable personal income will be high.

7. **The price of the substitute goods**

   If the price of the substitute increases demand of the good will decrease and when the price of the substitute decreases the demand of good in qn will increase.

   Substitutes are goods for which one can be used instead of the other e.g. pepsicola and Coca-Cola



8. **Price of the complement**

   Complement goods which are jointly demanded. These are goods which the demand of one result into demand of the other e.g. Car & petrol.

   If the price of the complement is high the demand of the good in question will be low and when the price of the complement is low the demand f the good in question will be high. (e.g. When the price of a car is high, demand for petrol will be low and when the price of the car is low, demand for petrol will be high)

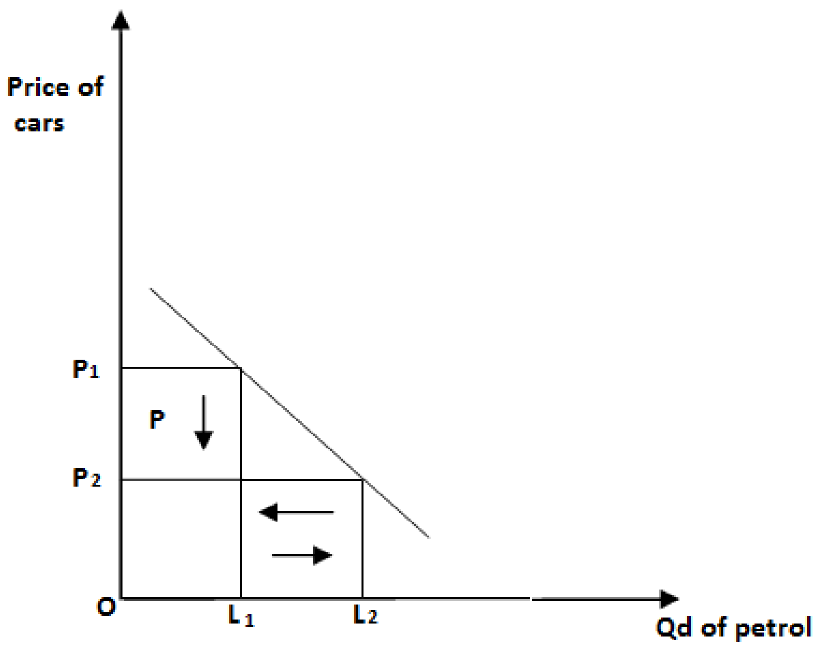
9. **Season**

The demand of some goods is seasonal in nature. When the prevailing seasons favors certain goods, its demand will be high and when the prevailing season does not favor a certain good, its demand will be low.

E.g. The demand of woolen jacket in winter will be high compared to the demand of woolen jacket in summer which will be low.

The downward sloping demand curve

The demand curve slopes downwards from left to right (negative slope). The indicates that more is demanded as the price falls and less is demanded when the price increases such negative slope is due to the following factors;-

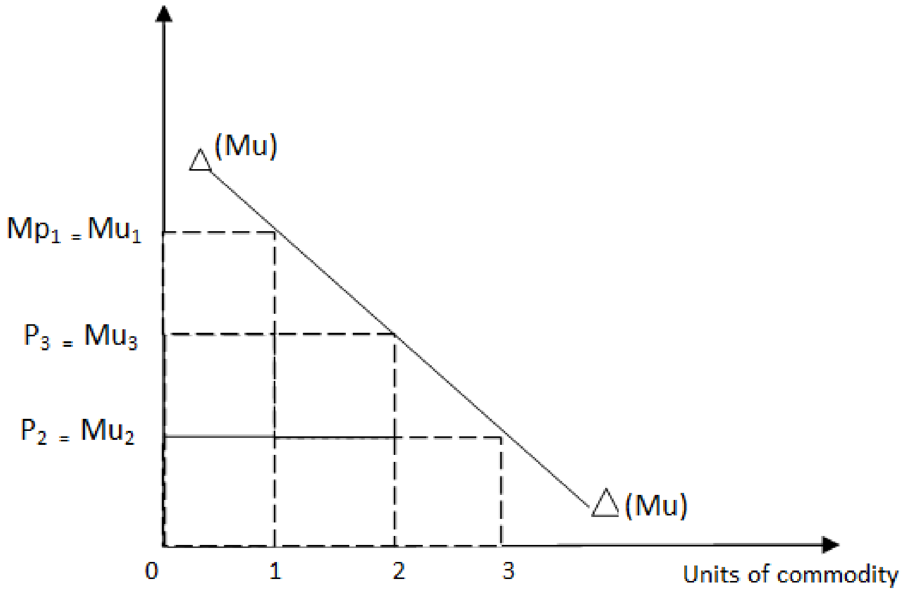


1. **Income effect**

As the price falls real income, increases and therefore consumers can now buy more units of a commodity with the same income. On the other hand when the price increases, real income decrease and therefore consumers can now buy less units with the same income.

2. **The law of diminishing marginal utility.**

The law of diminishing marginal utility states that," as more and more units of the commodity is consumed the additional satisfaction goes on declining" therefore more and more units of the commodity will be purchased only if the price is falling.



3. Substitution effect.

When the price of the commodity is low it becomes cheaper in comparison to other competing commodities and the consumers start to substitute this commodity in place of other commodity therefore demand for the commodity increases with the fall in price

4. **New customers**

When the price of the commodity for new customers join buying that commodity those who could not afford before and hence increase in demand, on the other hand when the price rises, some old customers may stop to purchase the commodity and hence fall in demand.

Uses of the commodity.

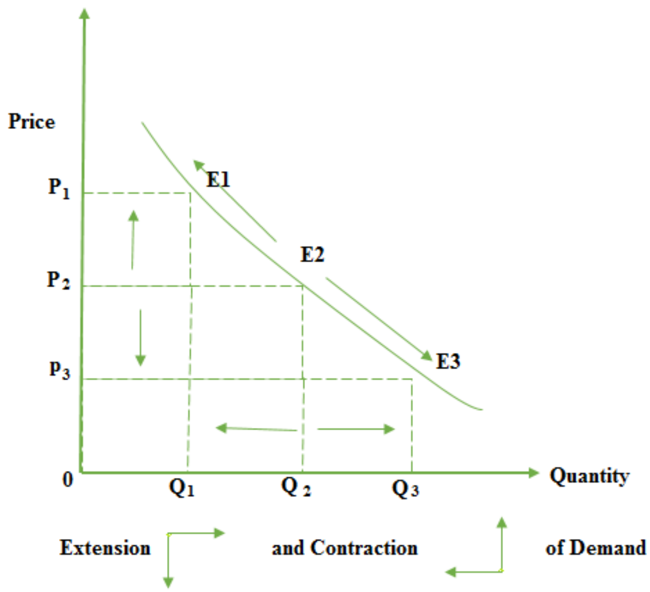
1. A commodity tends to be to more uses or less urgent uses when it becomes cheaper. For example, if water is dear, we shall use it for drinking only, but when it becomes cheaper, we shall use it for washing and other less urgent uses.

Change in quantity demanded and change in demand

Change in quantity demanded.

- This means increase or decrease in quantity demanded due to change in the price of the commodity, other factors remaining constant

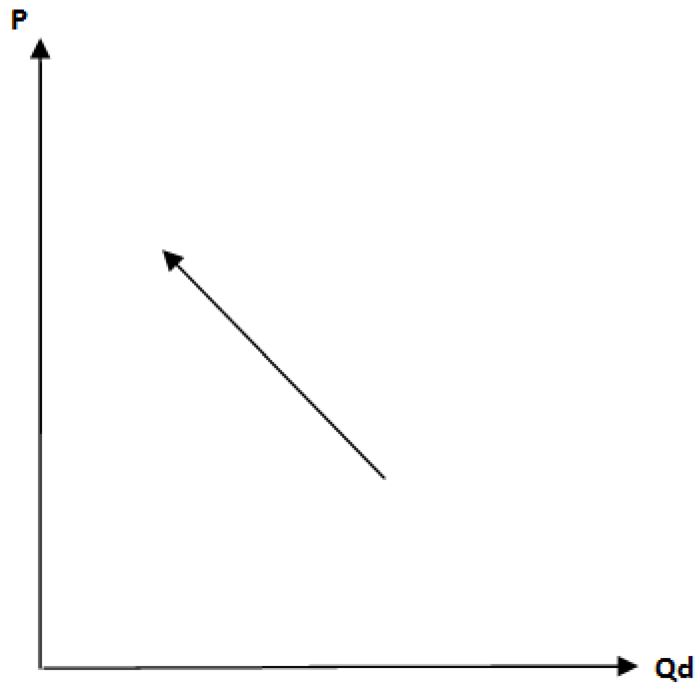
- It is illustrated through the movement along the same demand curve. Through extension it is increase in Qd and contraction is the decrease in Qd



Let us assume the economy in equilibrium at point “E2” that is at price “OP2” and quantity demand is “OQ2”

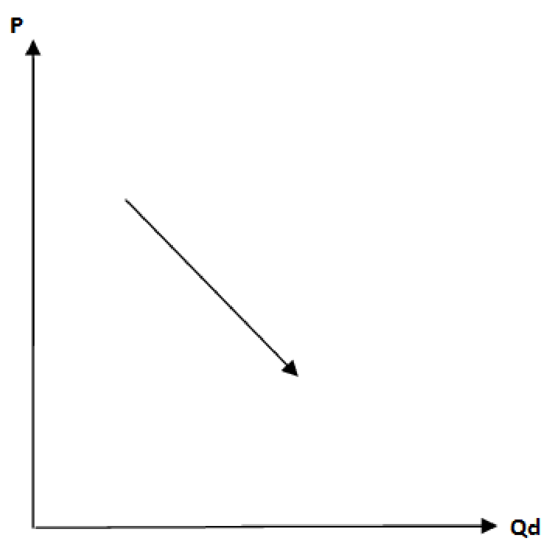
Case I (contraction of demand)

Let us assume that the price increase from “OP2” to “OP1” and the quantity demand reduce from “OQ2” to OQ1”. This behavior is referred to as “Contraction of demand”



- **Case II (Extension of demand)**

  In this case the price decrease from "OP2" to "OP3" due to this the quantity demand increase from "OQ2" to "OQ3" → this is nothing but the extension of demand.



Change in demand

Is the increase or decrease in demand due to change in all the factors affecting demand apart from the price.

It is illustrated through the shift demand curve either to the right (increase in demand) or to the left (decrease in demand).

In the diagram, "dd" is original demand curve. "**dd**" is decrease in demand curve. "" is increase in demand curve, "OP" original price OQ – original quantity.

"OP" Original Price "OQ1" Increase in demand.

"OP" Original Price "OQ2" Increase in demand.

REASONS FOR CHANGE IN DEMAND

1. **Change in the consumer's level of income**

   When the consumer's level of income increase, demand will also increase because of the increase in purchasing ability and when the level of income decrease, demand will decrease due to decrease in purchasing ability.

2. **Change in population size**

   When the population size increases, demand will also increase because of more consumers and the population decrease demand will also decrease due to less consumers.

3. **Change in the level of direct taxes**

   When the level of direct tax increase, demand will decrease due to the decrease of disposable personal income and when the level of direct taxes decrease, demand will increase due to the increase of disposable personal income.

4. **Expectation or Anticipations**

   Expectations also bring about a change in demand. If prices are expected to rise in future, the demand for goods will increase now in the present. Similarly, expectation of rising incomes will restrain current purchases and post pone purchases to a future favorable situation.

5. **Change in tastes, preferences and fashion.**

   When the tastes, preferences & fashion change in favor of certain goods, demand will increase and when the taste, preferences & fashion change against a certain good its demand will decrease.

6. **Change in price of the substitute.**

If the price of the substitute increases, the demand of a good in question will increase and if price of the substitute decrease the demand of a good in question will decrease.

7. **Change in the price of the complement.**

If the price of the complement increases, the demand of the good in question will decrease. However if the price of the complement decreases, the demand of the good in question will increase.

8. Exceptions of the law of Demand.

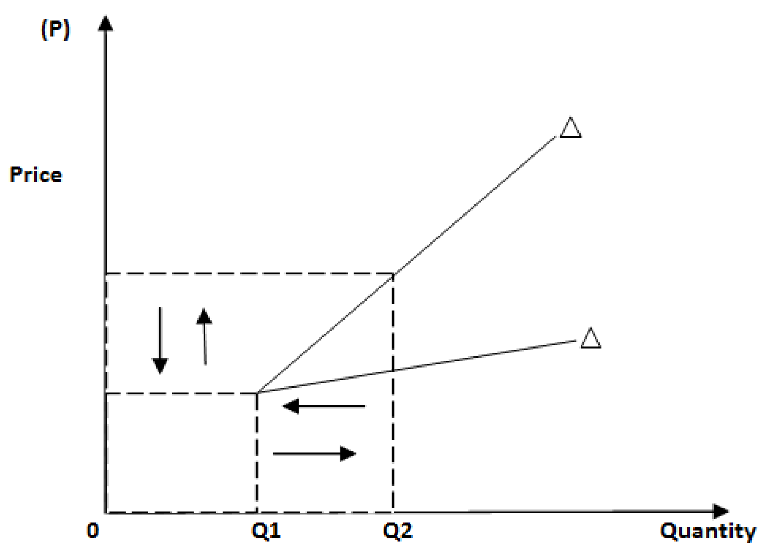
There are some situations where the law of demand does not operate. This gives rise to abnormal demand curve (regressive).

Aggressive demand curve has a positive slope indicating that as the price increases quantity demand also increases and vice verse. A situation which is against the law of demand.

The exceptions of the law of demand are the following;-

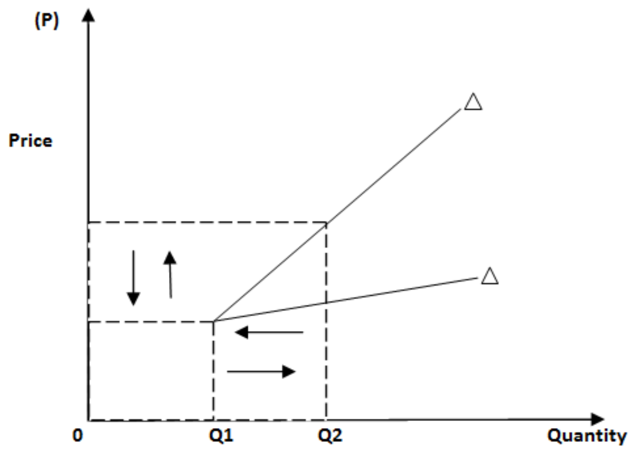
9**. Veblen goods or Article of ostentation**

These are the luxurious goods which are demand to emphasize economic status for example expensive cars, expensive mobile phones etc for such goods as the price increase, quantity demand also increases.



1. **Giffen goods (inferior goods)**

This can also be called inferior goods, example of such includes;- maize flour. For such goods when the price increases more is bought of them, but as the price fall less is demand of them for a low income earner when the price of beans increase, he will buy more of them by reducing his expenditure on meat.



2. **Fear of the future rise in price**.

   When the consumers expect the price of the commodity to increase now and then because of factors such as expected shortage they will tend to buy more of the commodity as the price increases

3. **Necessities**

   These are goods that are necessities of life, eg medicines, food, salt etc.

   For such goods a minimum quantity has been purchased by the consumer irrespective of their price because of such a situation, the law of demand is operative to a certain extent.

4. **Ignorance of the consumer.**

   These are situations where consumers buy goods at a higher price because they are ignorant of lower price for the same goods in other market.

   Interrelated Demand

   Under inter – related we examine the relationship between goods that are related in one way or another by looking at how change of one will affect demand of the other.

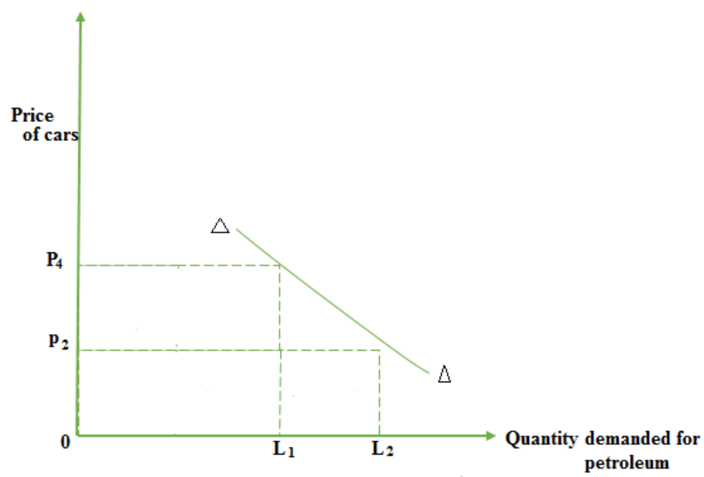
   Types of Inter – related Demand

5. **Joint Demand (complementary demand)**

This is the demand for two or more commodities which are jointly needed to satisfy a particular need

Example; Car and petrol, Increase in demand of one will result into increase in demand for another and decrease in demand of one will result to the decrease in demand for another and increase in the price of one will result to the decrease in demand for another.

Price of cars



6. **Competitive Demand**

This refers to the demand for goods which are substitutes to one another. For example tea and coffee, Pepsi and coca cola, increase in demand for one will result into decrease in demand for another and vice verse and increase in price for one will result into the increase in demand for another and vice verse.

7. **Composite Demand**

This refers to demand for a commodity which can be used for several purposes e.g. demand for electricity, demand for steel.

8. **Derived Demand**

This refers to demand for a commodity which is used in the production of the other commodity. E.g. demand for factors of production is derived in demand because it is upon demand for goods that produces demand for factors of produce in order to produce other goods.

Elasticity of Demand

Definition

-Elasticity of Demand is the responsiveness of demand to change in price.

Types of Elasticity

There are basically three types of elasticity

1. Price Elasticity of Demand
2. Income Elasticity of Demand
3. Cross Elasticity of Demand

A. Price Elasticity of Demand

Is the responsiveness of demand to change in price level. It measures responsiveness of potential buyer to change in price.

Price elasticity can be measured by the help of the following formula:

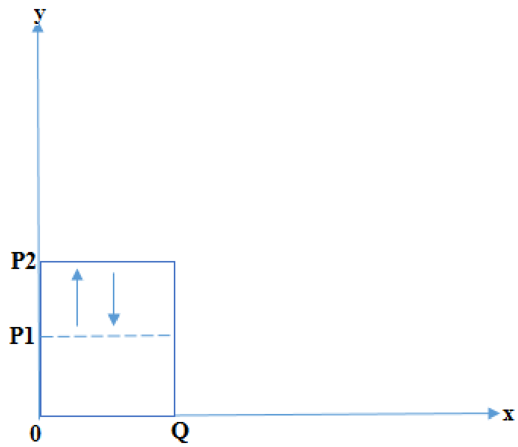
$$\text{P.E.D} = \frac{\text{Percentage Change in Demand}}{\text{in Percentage change}} \quad OR \quad \frac{\Delta Qd}{\Delta Pd}$$

Price elasticity is always negative

Interpretation of Price Elasticity of Demand.

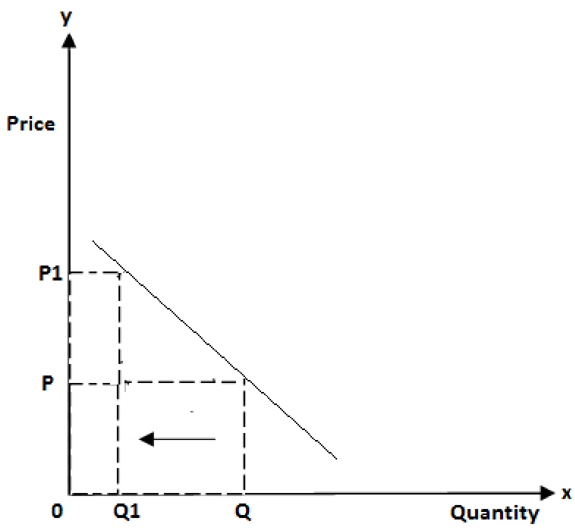
1. **Perfectly in elasticity (P.E.D = 0**)

This means that change in price has no effect of quantity demand.



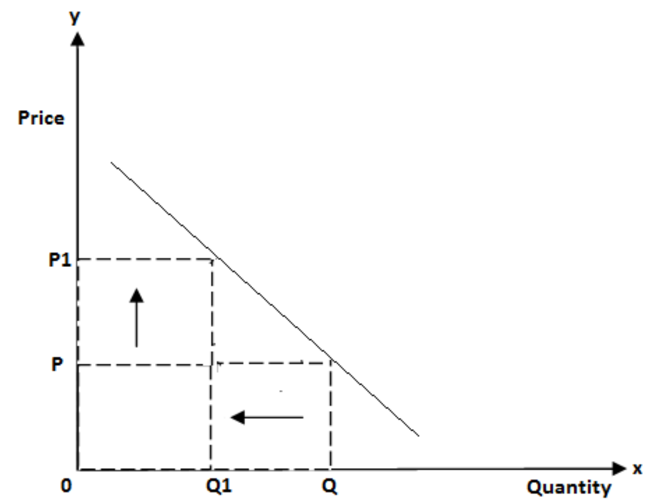
2. **In elasticity (P.E.D < 1)**

This means that a big change in price bring about a small change in demand



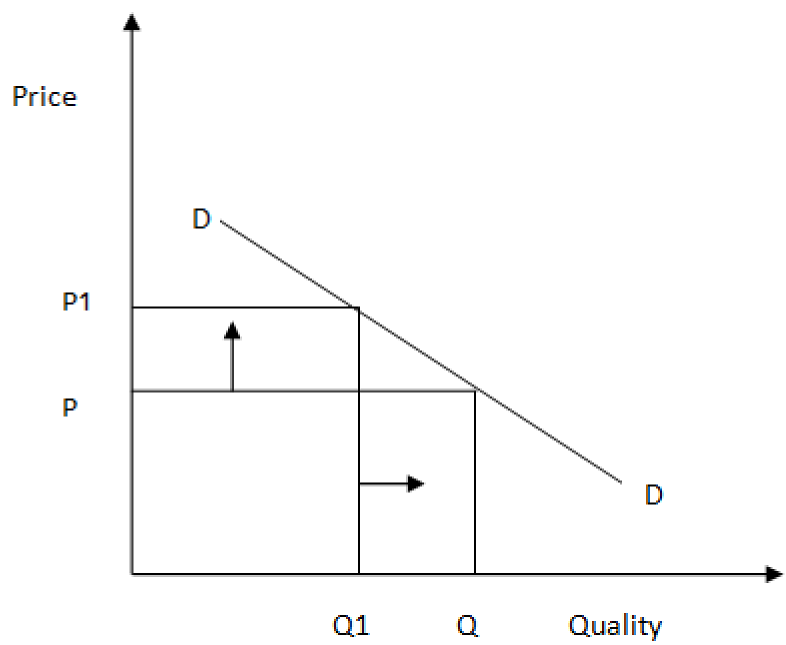
3. **Unitary (PED = 1)**

This means that a change in price result into the equal change in demand



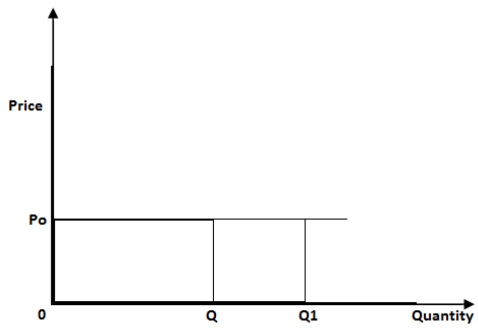
4. **Elastic (PED > 1)**

This means that a small change in price result into a big change in demand



5. **Perfect Elastic (PED = ∞)**

This means that price is not changing (fixed) but quantity demanded in changing.



FACTORS WHICH INFLUENCE PRICE ELASTICITY OF DEMAND.(PED)

PED can be elastic or inelastic depending on the following factors;-

Degree of availability of close substitutes

If a commodity has many close substitutes, its price elasticity of demand will be elastic as consumer can easily move over to other alternative. However on the other side, if commodities have few substitutes its demand will be inelastic.

1. **Proportion of income spent on a good**

If the commodity takes a large percentage of someone's income, its demand will be price elastic as increase in the price can easily be felt. However if a commodity takes a small percentage of someone's income eg. Match box its demand will be price inelastic.

The level of Income

With the high level of income demand will be price inelastic since increase in the price can easily be absorbed. On the other hand with the lower level of income the demand will be low hence price is inelastic.

Time period

In the short run demand would be price inelastic as the answer will not be able to gain enough market information e.g. the prices of other completing goods. However in the long run demand would be price elastic as the consumer would have gain enough market information.eg. The price of substitutes.

The degree of necessity

If the commodity is a necessity its demand would be price inelastic as a person cannot easily do without them on the other hand, the luxurious goods have elastic demand.

Habit

For goods with addiction in their consumption eg. Cigarettes, alcohol, their demand is price inelastic, however those goods with no addiction use their demand is price elastic

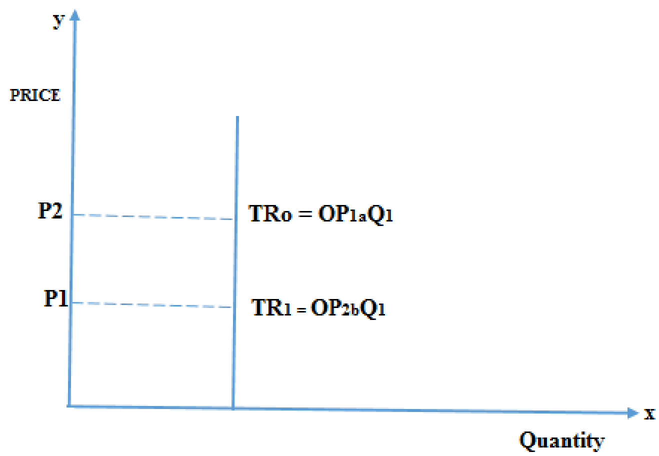
Durability of a commodity.

Durable goods such as furniture have inelastic demand, since they can stand for a long period of time after has been bought on the other hand, on durable goods have elastic demand.

Importance or Practical application of P.E.D

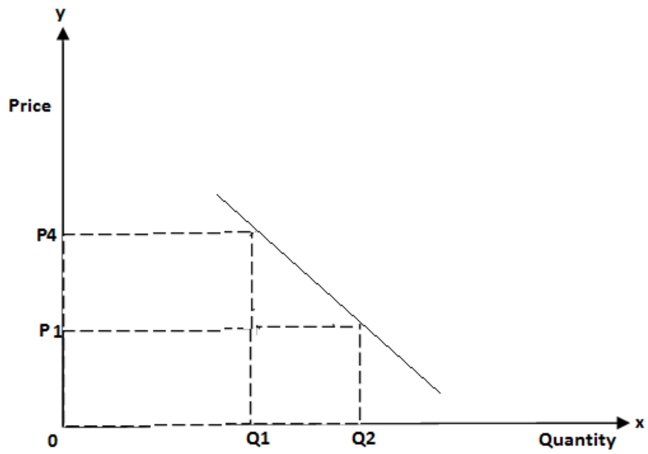
1. **To the primary decision**

P.E.D is important to business in pricing decision making in order to maximize total revenue (TR). Therefore it is on the basis of the price elasticity of demand of the commodity that is selling will decide whether to increase or reduce the price (P) in order to maximize total revenue as below

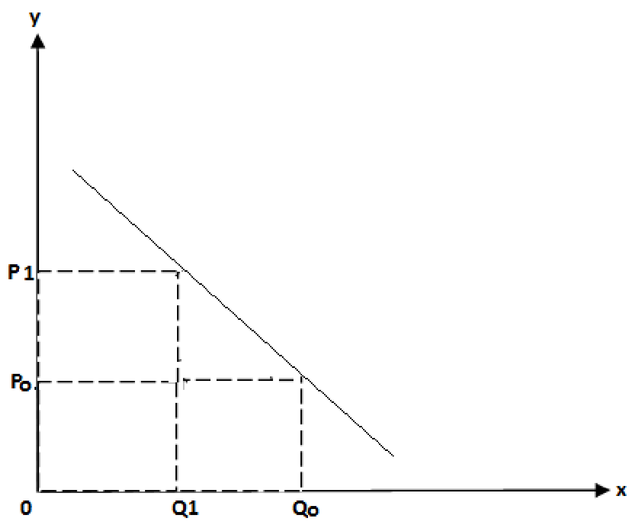


When PED is perfectly inelastic he should increase the price to earn revenue since demand will remain exactly the same.

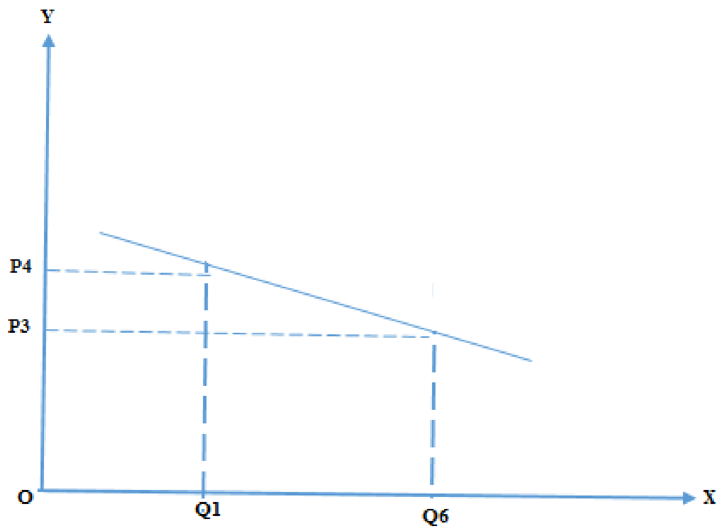
When P.E.D is inelastic, the business should decrease the price in order to earn total revenue because at such high price, demand will remain almost the same.



When price elasticity of demand is unitary the business should leave the price the same. Since increase or decrease in the price will lead to the total revenue to be the same.



When P.E.D is elastic a businessman should reduce the price in order to earn more revenue because decrease in price spark off a big increase in demand.



2. To a Monopoly

When carrying out price discrimination the monopolist considers the price elasticity of demand in the market in order to decide in which market to charge a high price and in which to charge low price. In that market where price is elastic, he should charge a low price and in that market where price is inelastic, he should charge a high price.

3. Wage Determination

Elasticity of demand for labor is important in wage determination in such a way that when demand for labor in a firm is inelastic, trade unions and laborers can easily succeed in bargaining for high wages than when the elasticity of demand of labor is elastic.

4. Government in Taxation

The government uses the concept of price elasticity of demand in determining which commodity to levy high tax and which to levy low taxes in order to collect more revenue. Those goods whose demand is price inelastic e.g. Cigarettes, alcohol etc.The government will levy high taxes however for the goods whose demand is price elastic the government will levy law taxes.

5. Determination of incident of a tax

Determination of the incident of a tax between producer and the buyer is on the basis of the price elasticity of demand of the commodity as below.

Demand for the commodity is price in elastic the bigger the burden is borne by the buyer and the small one by the producer.

If elasticity of demand is century the burden shared equally between the producer and the buyer.

If demand for the commodity is price elastic the smaller burden shared equally between the producer and the buyer.

If demand for the commodity is price the smaller burden is borne by the buyer and the bigger burden is borne by the producer.

6. Under International Trade (devaluation)

Devaluation is the deliberate action by the government to lower the value of its currency in relation to foreign currency. It aims at increasing export and reducing import, however this is only possible if the price elasticity of demand of both exports and imports is elastic.

A. **Income Elasticity of Demand**

This is the measure of degree of responsiveness of demand due to change in the consumer's level of income.

I.E.D = (proportionate change in demand)/(proportionate change in income)
OR

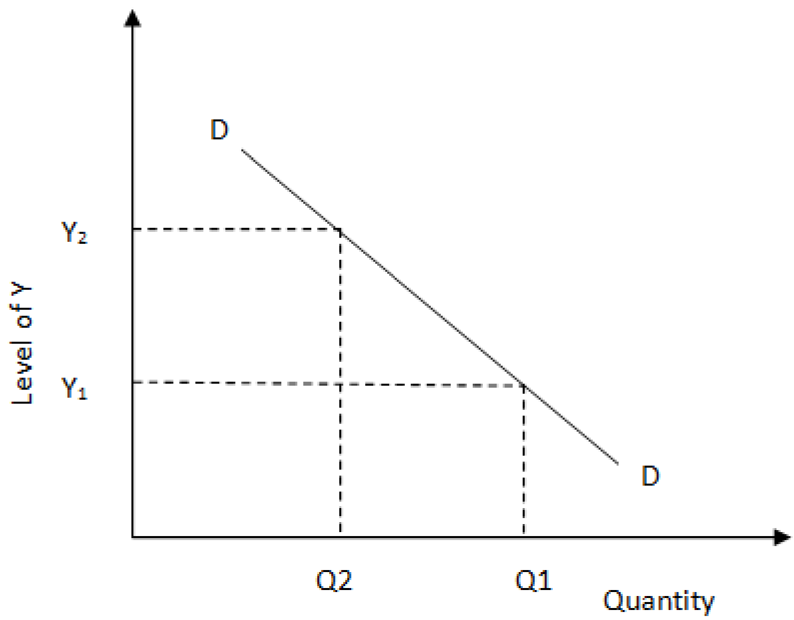
$$IED = \frac{\Delta Q X Y_o}{\Delta Y \ X \ Q_o}$$

ΔY=Changing income
Yo=Income before change
Q=Quantity

Interpretation of Income Elasticity.

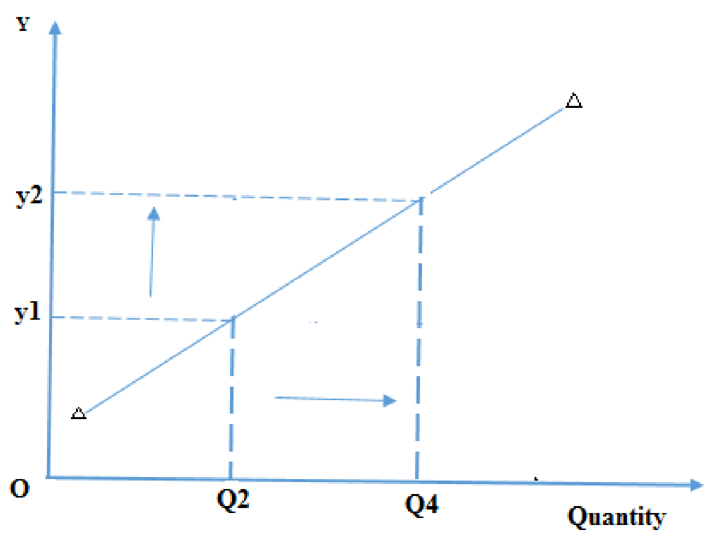
1. **YED = -ve**

   This means that a commodity is an inferior good whereby as the income increases quantity decreases



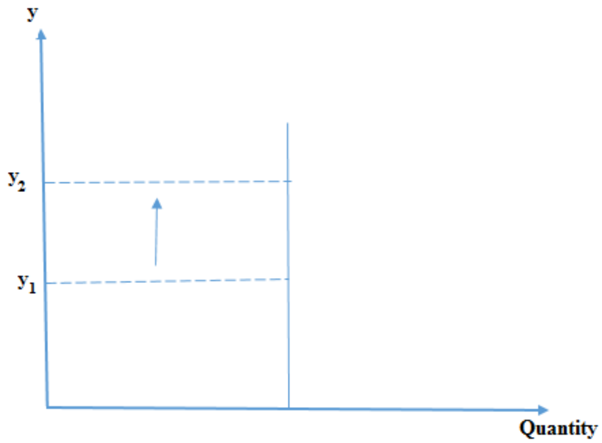
2. **Y.E.D = +ve**

This means that a commodity is a normal good therefore as the level of income increases demand increases (Articles of Ostentation)



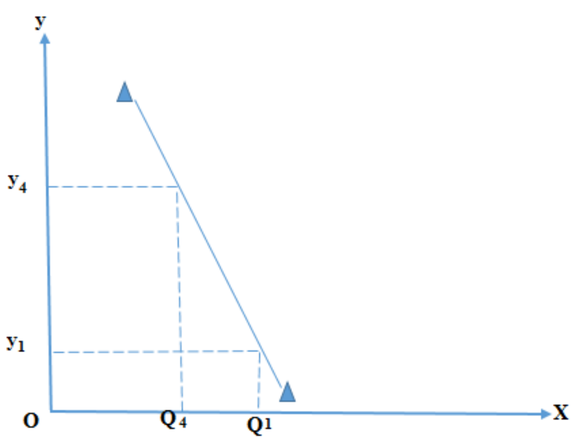
3. **YED = o**

This means that the commodity in consideration is a necessity eg.medicine etc, therefore as the level of income increase demand remains.



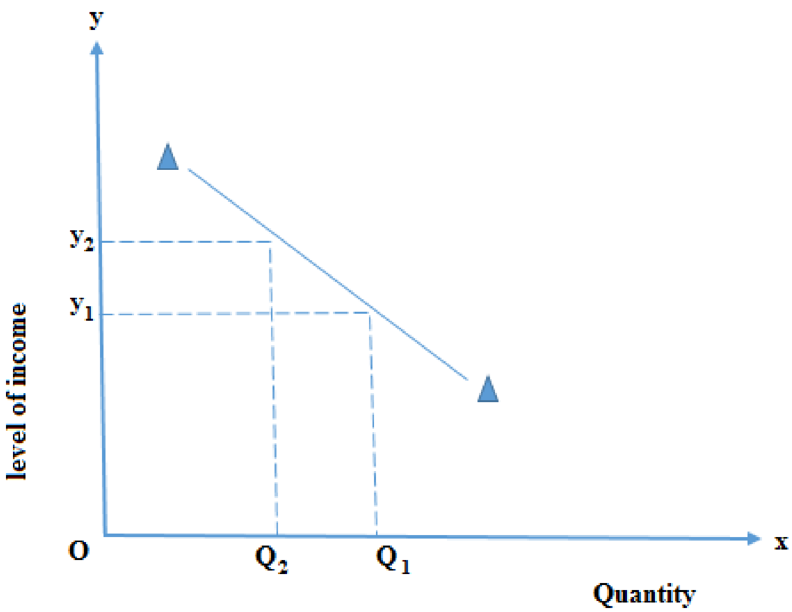
4. **YED < 1 (in elastic income elasticity)**

   This means that the big change in the level of income results into small change in demand. This is applicable under necessities.



5. **YED > 1 (elastic income elasticity)**

   This means that the small change in the level of income results into big change in demand. This is applicable for inferior goods,



3. Cross Elasticity of Demand (CED)

This is a measure of degree of responsiveness of demand of a good due to change in price of any substitute commodity

C.E.D = Percentage change in demand for good “A”/Percentage change in price of another product “B”

$$CED = \frac{\Delta Qd(A)}{\Delta P(B)} \times \frac{P_oB}{Q_oA}$$

Where by

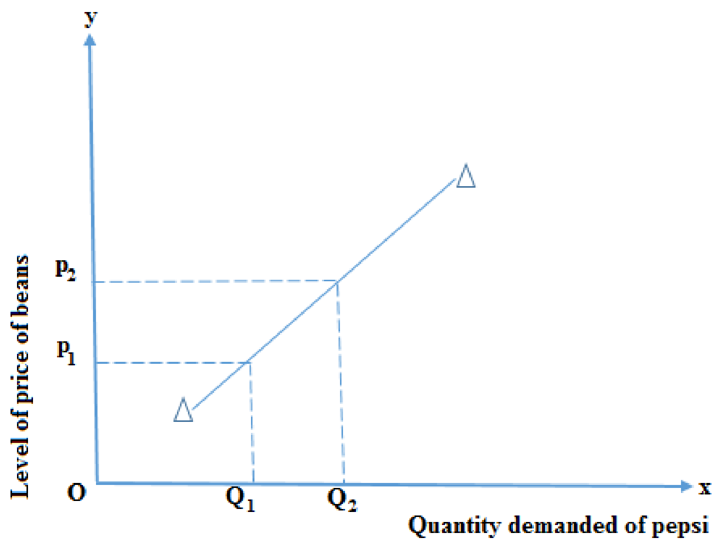
ΔQd (A) =Change in Qd

Qd=Quantity Demand

A=Product A

B=Product B

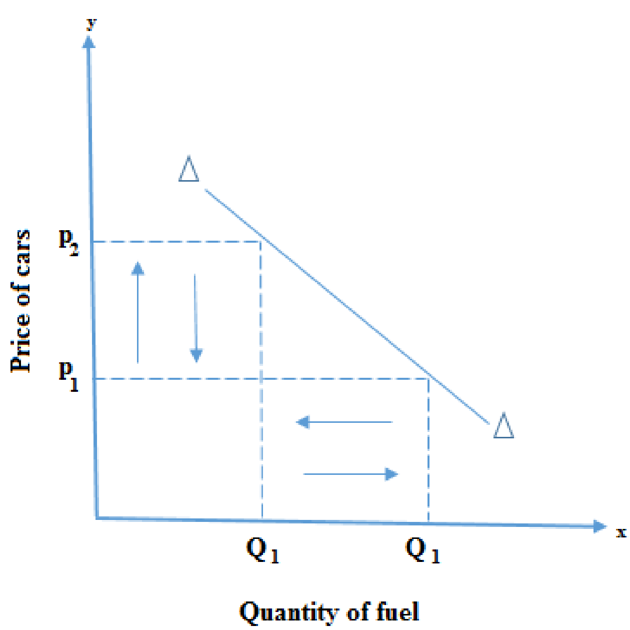
Po=Before change



Interpretation of Cross Elasticity of Demand

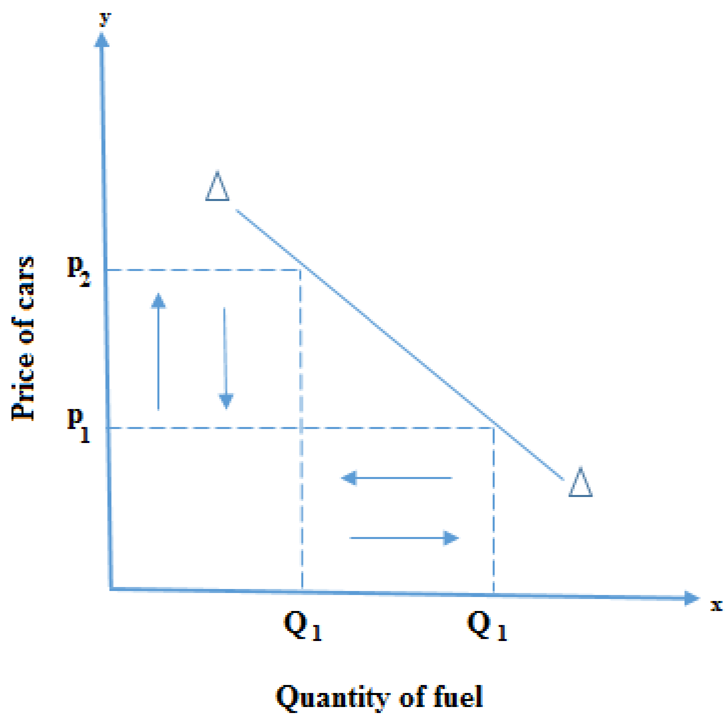
1. **CED = +ve**

   This means the commodity in consideration is a close substitute eg, beans and peas, therefore when the price of one increase, demand of the other increase and vice versa.



2. **CED = -ve**

This means that two commodities in consideration are complement (jointly demanded) e.g. car and petrol for such goods when the price of one increases demand for the other decrease and vice versa.



3. **CED = 0**

This means that the two commodities in consideration are not related at all, therefore a change in the price of one does not bring about any change in demand of the other e.g. Car and table

Arc and Point Elasticity.

Arc Elasticity

According to Baum, "Arc Elasticity is a measure of the average responsiveness to price change exhibited by a demand curve over some finite stretch of the curve"

Or

Arc elasticity is an estimate of the elasticity along average of demand curve. It can be calculated for both linear and non linear demand curve using the following formula.

$$\text{Arc.e.d} = -\frac{DQ}{DP} \times \frac{(P1 + P2)/2}{(Q1 + Q2)/2}$$

Or

$$\text{Arc eD} = \frac{\text{difference in Q}}{\text{Sum of Q}} \times \frac{\text{difference in}}{\text{Sum of P}}$$

$$\text{Therefore Arc e.D} = \frac{q1 - q2}{q1 + q2} \div \frac{p1 - p2}{p1 + p2}$$

Point Elasticity

Point Elasticity of demand is measured by the slope of tangent to the demand curve at that point.

Price elasticity with complete accuracy at a point on the demand curve.

The formula for calculating point elasticity of demand is as follows;-

$$\text{Point ed} = \frac{-Dq/q}{Dp/p}$$

$$= \frac{Dq}{Dp} \times \frac{Po}{qo}$$

Factors of Elasticity of Demand

There are several factors which determine the elasticity of demand.

These are the following:-

1. **For necessaries of life demand is less elastic.**

   As regards the necessaries of life demand is less elastic because these commodities are purchased at whatever price they may be. They change in price does not matter so far as demand for such commodities is concerned. Wheat and cloth are examples of such things.

2. **Demand for luxuries is more elastic.**

The demand for luxuries is more elastic in the sense that a little change in price level brings a greater change in demand. Television and video sets are examples of such things

3. **For substitute demand is more elastic.**

   The commodities which have their substitute, their demand is more elastic. For example, when price of tea rises, demand for tea will decrease to great extent because more coffee will be demanded.

4. **Demand for goods having several uses is more elastic**.

   The commodities which have various uses, they have more elastic demand. Coal is such a case when it is cheap the use for less urgent needs will extend and when its price goes to rise, it will be put only to more urgent uses and its demand will decrease to a great extent.

5. **Demand for goods the use of which can be postponed.**

   Demand for goods, the use of which can be postponed is more elastic 'for example, when building material is very costly, the building activities are very much reduced and vice versa.

6. **Price level**

   Elasticity also depends upon the price. If the price is either too high or too low, the demand will be less elastic. For example, in the case of cars and salt.

THEORY OF SUPPLY

Supply means the quantity of goods services a producer is willing and able to offer for sale in the market at the prevailing price per period of time.

The law of supply states that, "The higher the price the higher the supply and the lower the price, the lower the supply, other factors remaining constant.

Assumptions of the law of supply.

The law of supply operates all factors affecting supply are kept constant apart from the price therefore the following gave its assumptions.

1. The level of technology is constant
2. The climatic season remains the same
3. The number of producers remains the same
4. The government policy remains unchanged.
5. The price factor of inputs remains fixed
6. The level of demand remains the same
7. The prices of other related goods remains the same.

Supply schedule – Is a table that shows various quantities of goods and services offered for sale are their corresponding prices.

An individual supply – Is a table that shows various quantities of goods services a single producer is willing and able to offer for sale in the market at different prices per period of time.

Market supply schedule – Is a table that shows different total quantities that producers are willing and able to offer for sale in the market at different prices per period of time.

Note: In order to get a market supply schedule we add up individual supply schedules

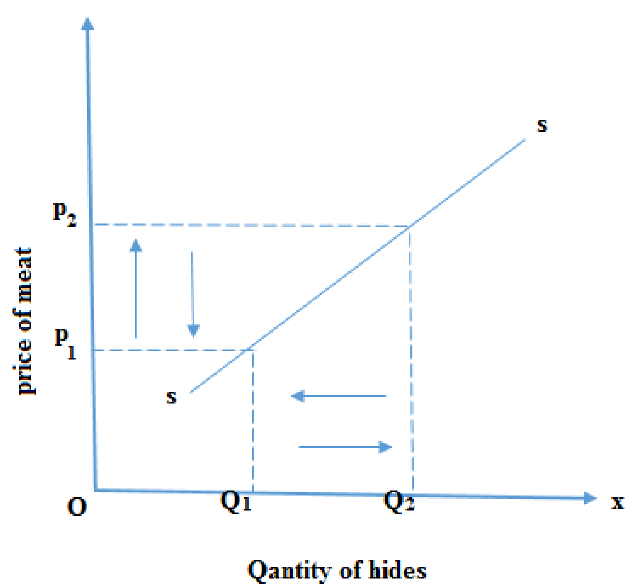
Supply curve – Is a geometrical representation of various quantities offered for sale by producer of a commodity and their corresponding prices.

Note: The supply curve can be an individual or market supply curve, therefore in order to get a market supply curve we add up individual supply curves.

Factors Affecting Supply

1. **Price of the commodity**

The higher the price of the commodity, the higher the supply,the lower the price of the commodity, the lower the supply, other factors remaining constant.



2. **Number of producers.**

If there is a big number of producers of a particular commodity, supply will be high and when there is less number of producers of a particular commodity supply will be low.

3. **Production technique (level of production)**

   With the use of improved and better technology, supply will be big. However the use of inferior and low level of technology, supply will be low.

4. **Government policy**

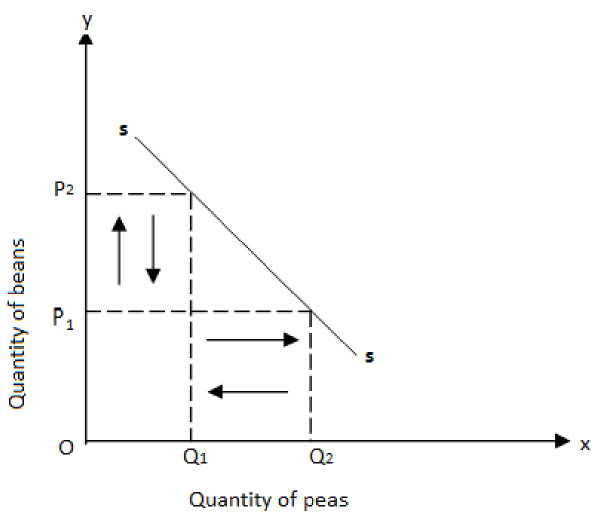
   Provision of subsides to producers results into more supply as it lowers the cost of production on the other hand imposition of taxes discourages producers and hence low supply.

5. **Gestation Period (production period)**

   The shorter the gestation period, the higher the supply and the longer the gestation period, the lower the supply.

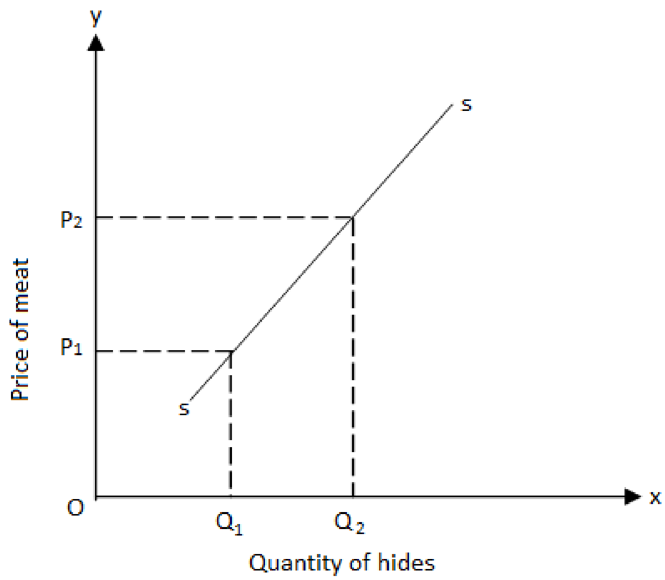
6. Time in the short run, supply will be less since some factors input will be fixed. However in the long run supply will be high as the form will be able to very all its factor in put
7. **Price of the substitutes**

When the price of the substitute is high, supply of a good in question will be low because of low level of profitability but however the price of the substitute is low supply of a good in question will be high.



1. **Price of the complement (Jointly Supplied goods)**

When the price of the complement is high, supply of a good in question will be high and the opposite is true. E.g. when the price of meat is high supply of hides will also be high and vice versa



Change in Quantity supplied and change in supply

1. This means increase and decrease in quantity supplied due to change in the price of the commodity other factors remaining constant.

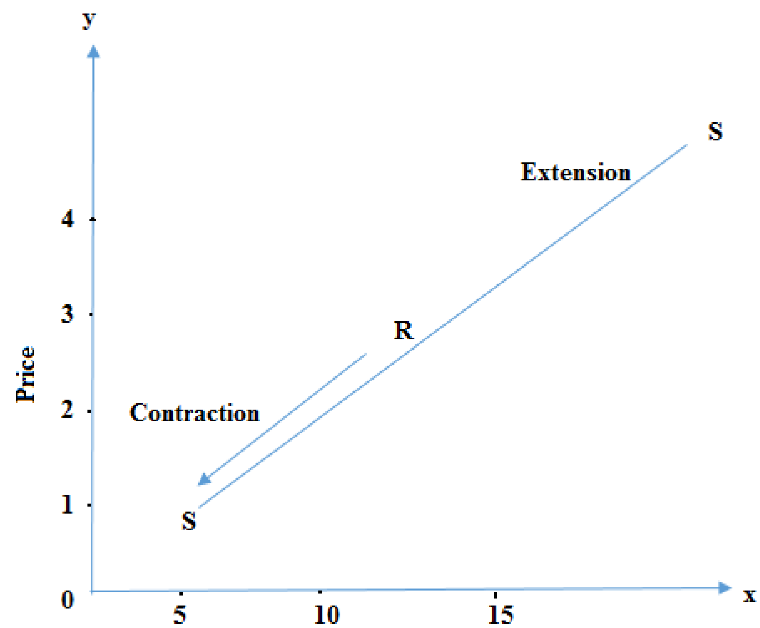
   When the price increases quantity supplied increase and with the price decrease quantity supplied decrease.

Extension of Supply

P(shs)	S(units)
3	10
4	5

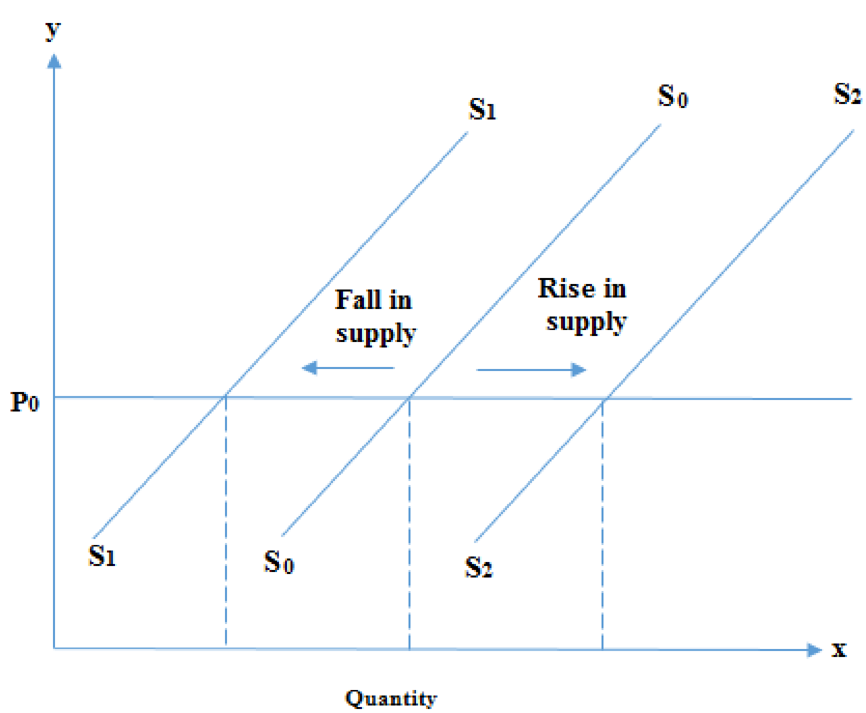
Contraction of Supply

P(shs)	S(Units)
3	10
2	5



Change in supply (Rise and Fall in Supply)

2. Also referred to the shift of the supply curve. This means rise or fall in supply due to all factors affecting supply apart from the price. When the supply curve shifts to the right it means a rise in supply and when it shifts to the left it means decrease/ fall in supply.



FACTORS OF CHANGE IN SUPPLY

1. **Cost of Production.**

   When cost of production of any commodity rises, supply falls and vice verse.

2. **Climate situation**

   If climatic situation remains favorable agricultural production will increase and as a result of this supply will rise and vice verse.

3. **Improvement in the method of production.**

   When new and less expensive methods of production are invented, supply will increase/ rise and vice verse.

4. **Development of means of transport and communication**

   If means of transport and communication are adequate and developed, it will be possible to move commodities from one place to another place. In this case supply will rise and vice verse.

5. **Peace and security.**

   With peace and security, supply rises because production is encouraged and vice verse

6. **Policy of the Government.**

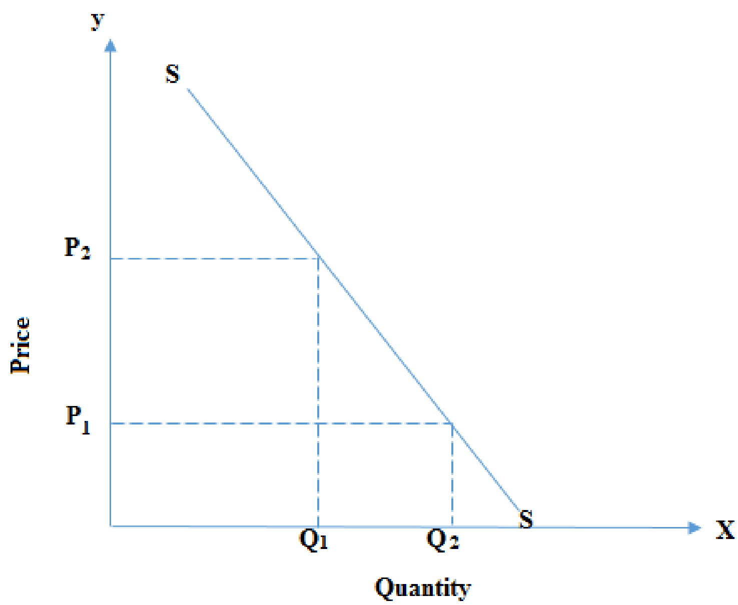
   When restrictions are levied by the government on the movement of goods, supply will fall and when such restrictions are removed supply will rise.

7. **Rates of Taxes**

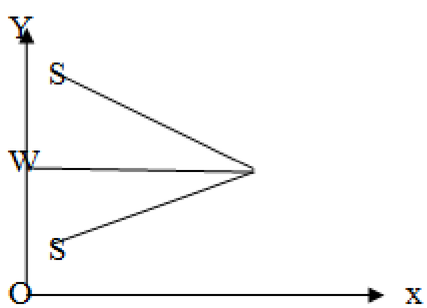
   When taxes are levied at a higher rate, supply falls and vice verse.

Abnormal Supply curve

Is that supply curve which disobeys the law of supply. It has a negative slope. It implies that the higher the price of the commodity, the lower the quantity supplied of it and vice verse.



The cases of abnormal supply curve are not common. In very rare cases only a supply curve will be of the abnormal shape. There is one good example of abnormal supply curve i.e. the bending supply curve of labor. This shows that beyond a specific wage level, any rise in ways will result in decrease in working hours. The shape of the supply curve of labor is as under.



When wages rise beyond OW then working hours decrease.

Inter – related supply

1. **Joint Supply**

Some goods are produced together. The supply of those goods which have common process of production is known as joint supply. The supply of such goods is increased or decreased simultaneously.

E.g. a) Wood and Mutton are produced jointly

b) From crude oil, different types of petrol production are obtained

Such as diesel, engine oil, super etc.

2. **Composite Supply**

The goods which are substitute of one another their total quantity is called composite supply.

E.g. a) Supply of Mutton, beef and chicken

b) Supply of Tea and Coffee

c) Supply of cold drinks like Coca cola and Pepsi

3. **Competitive Supply.**

There are some alternative uses of land, labor and capital. If these factors are used for the production of one commodity then the supply other commodities is affected.

E.g. a) If more land is used to produce wheat then production of maize will

Decrease. The supply of these goods is competitive supply

ELASTICITY OF SUPPLY.

Elasticity of Supply - Is the measure of the ease with which an industry can be expanded and of the behaviour of the marginal costs.

A. Price Elasticity of Supply

Price elasticity of supply is the measure of degree of responsiveness of supply due to change in price of commodity

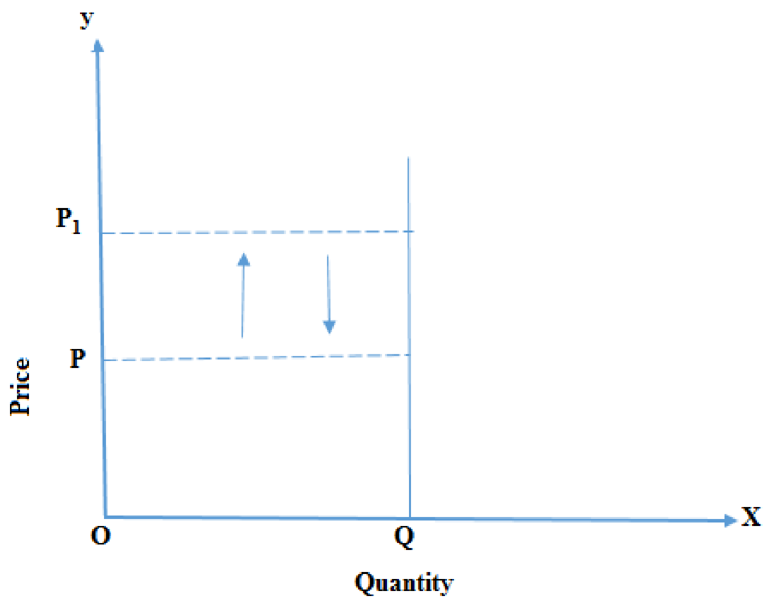
P.E.S = (proportional change in amount supplied)/(proportional change in price)

$$PES = \frac{\Delta Qs}{\Delta Ps} \times \frac{Po}{Qo}$$

Interpretation of PES

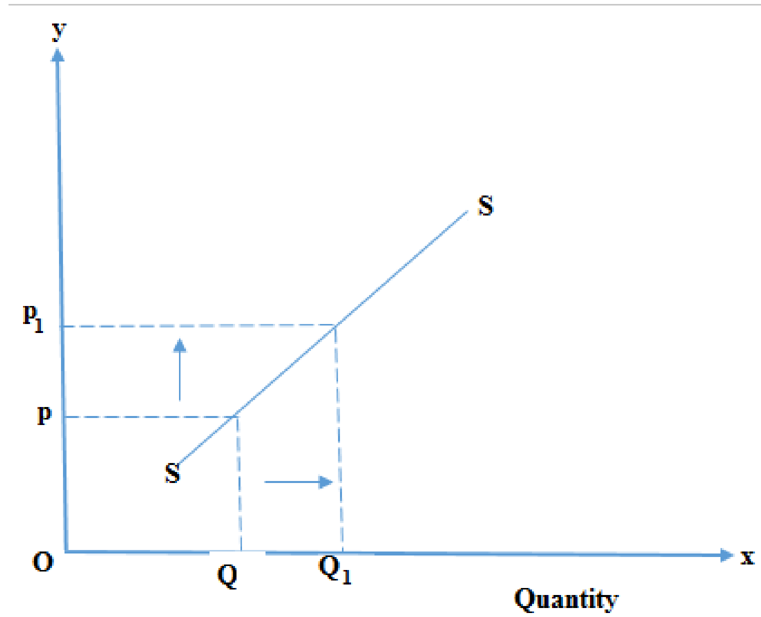
1. PES = 0 (**perfectly inelastic**)

This means there is no change in quantity supplied due to change in price



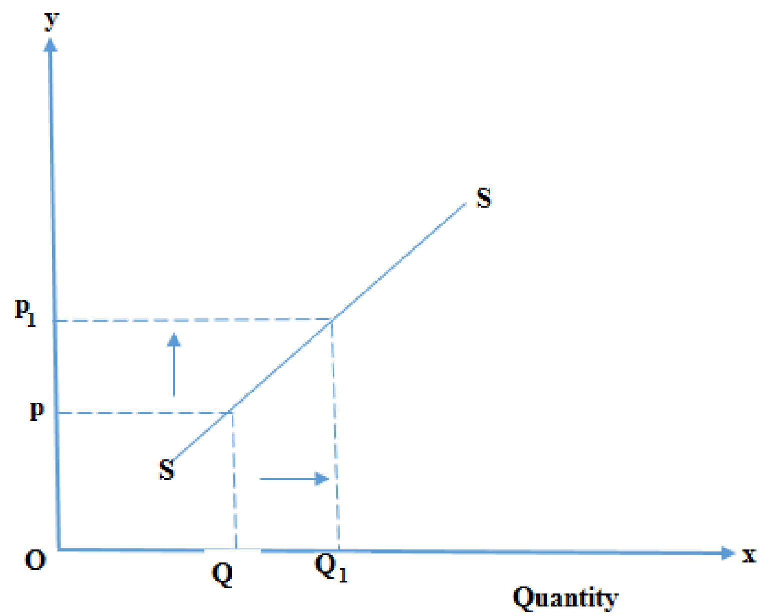
2. PES < 1 **(inelastic**)

   This means that the change in price is greater than the change in quantity supplied



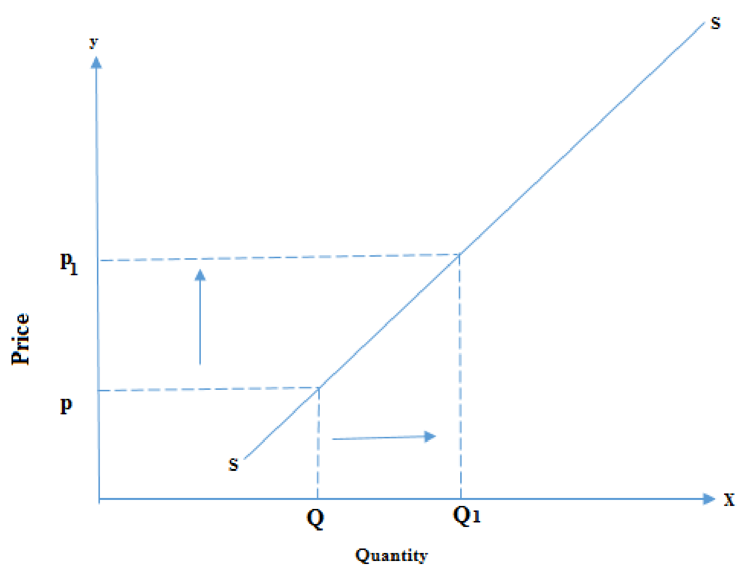
3. PES = 1 (**unitary**)

   This means the amount of change in price is equal to the amount of change in quantity supplied



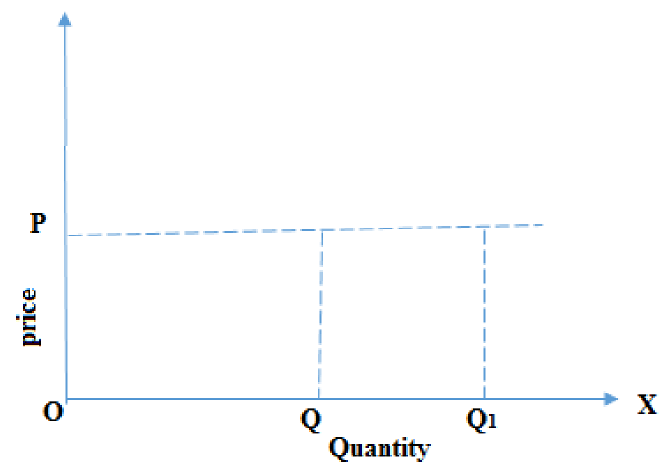
4. PES > 1 (**elastic**)

   This means that change in quantity supplied is more than change in price.



5. PES α (perfectly elastic.)

   This means that there is no change in price but there is change in quantity supplied



FACTORS THAT INFLUENCE P.E.S.

1. **Gestation Period**.

   If a commodity has a short gestation period its supply will be price elastic as supply can easily be increased in a shorter period of time. E.g. industrial goods, however if a commodity has a longer gestation period its supply will be price in elastic eg. agricultural goods.

2. **Degree of entry of new firms in the market.**

   If there is free entry of firms in the market eg. under perfect competition supply would be price elastic. However if there are barriers to entry of new firms in the market. E.g. under monopoly supply would be price inelastic.

3. **Ability to store stock**

   For those commodities which can easily be stored their supply is price elastic, as supply can easily be increased from the existing stock. However for those goods that can easily be stored e.g. vegetables, their supply is price in elastic.

4. **The existence of spare capacity**

   If a firm is operating at full capacity, further increase in output will be more difficult and hence in elastic supply. However if a firm is operating below full capacity supply will be price elastic as more output can be product by further utilizing, the underutilized factor inputs.

5. **Time**

In the short run supply would be price inelastic as some factors input will be fixed e.g. land, capital, and technology. However in the long run supply it will be elastic as all factor inputs will be variable.

6. **The level of technology**

   With the use of advanced technology, supply will be price elastic as such technology is more efficiency. However with the case of poor technology supply will be inelastic as such technology is less efficient.

7. **Cost and availability of factors of production.**

   When the cost of production is low and there is adequate supply of factors of productions, supply will be price elastic. On the other hand when the cost of production is high and there is limited supply of factors of production, supply will be inelastic.

Cross Elasticity of Supply

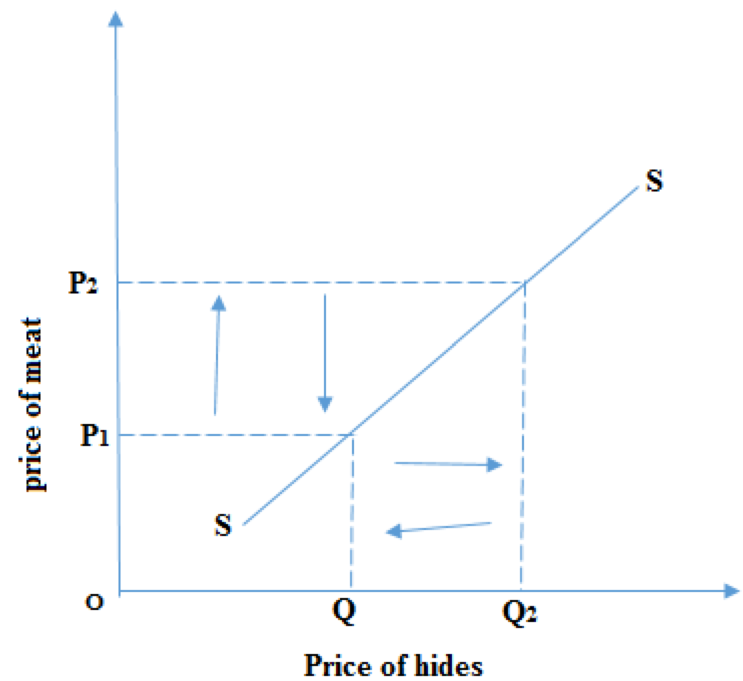
It is the proportional (percentage) change in the supply for good x divided by the proportional (percentage) change in the price of good y

$$E_{XY} = \frac{\Delta X / X}{\Delta P_Y / \Delta P_Y} = \frac{\Delta X}{\Delta P_Y} \times \frac{P_Y}{X}$$

Where:
X=Demand of good x
P_Y=Price of good Y
Δx=Change i demand for x
ΔP_Y=Change in price of Y

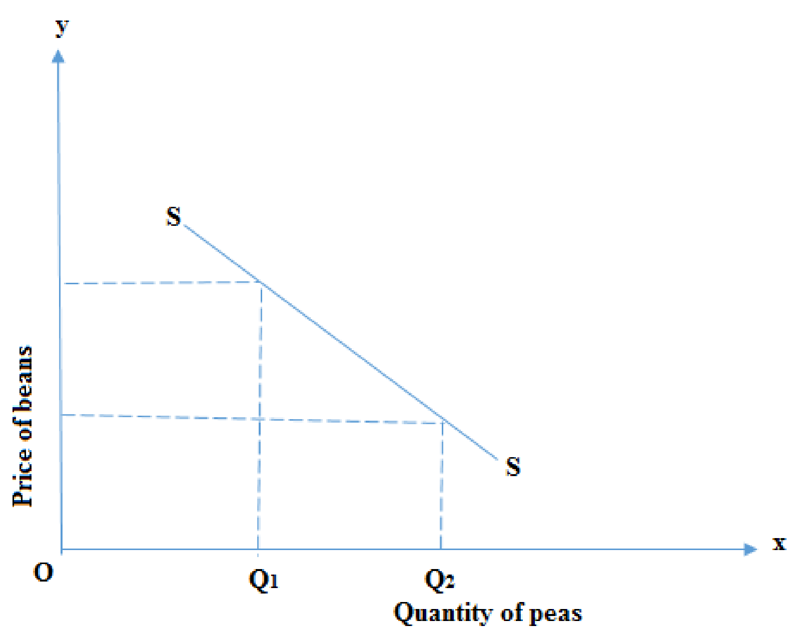
1. CES = +ve

   This means that the commodity in consideration are complements (jointly supplied) e.g., meat & hides. When the price one increase, quantity supplied of the other also increases and vice versa



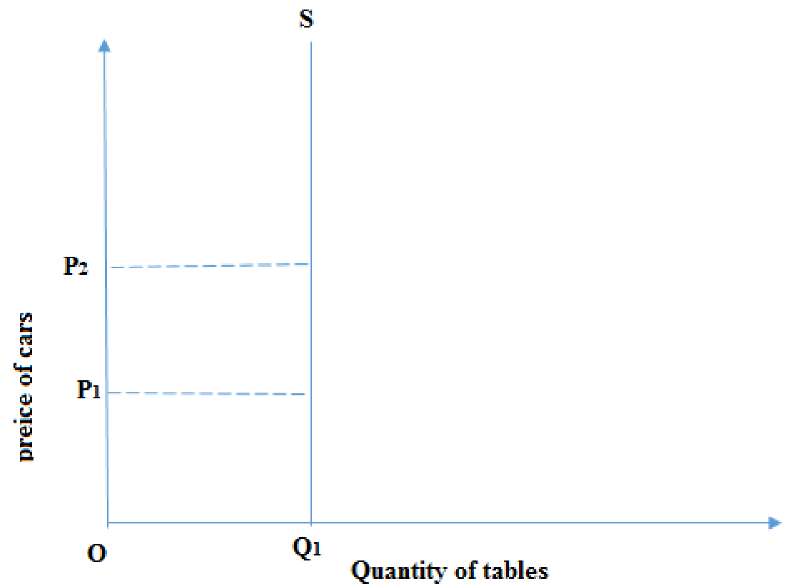
2. CES = -ve

This means that the commodities in consideration are substitutes e.g. beans & peas, when the price of one increase, quantity supplied of the other decrease and vice versa.



3. CES = 0

This means that the commodities in consideration are not related at all, therefore change in price one cause no effect in quantity supplied of the other e.g. a car and a table.



Factors of Elasticity of Supply

1. **Nature of commodity**

   Those commodities which are durable can be kept for a long time and such commodities like wheat and cloth have a greater elasticity of supply. The commodities which are perishable nature like fish and milk have less elastic supply.

2. **Costs of Production.**

   The commodities which have high costs of production have less elastic supply and vice versa.

3. Those commodities which are produced in a short period of time have greater elasticity and vice versa.
4. **Methods of production.**

   The commodities which can be produced with the help of simple methods of production have more elasticity and if the method of production is complicated, supply will be less elastic.

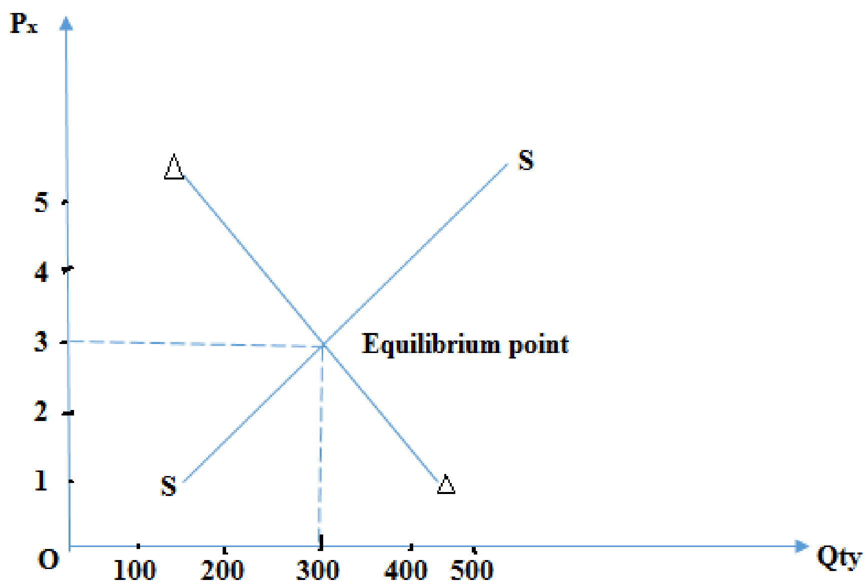
5. **Laws of Returns.**

   The commodities which are produced under the conditions of increasing returns have greater elasticity of supply and the commodities which are produced under the condition of diminishing returns have smaller elasticity of supply.

The equilibrium between Demand and Supply

- This is when quantity demanded is equal to quantity supplied, therefore there is neither shortage nor surplus. When the demand and supply curve meet at that particular point, qty **dd** is equal to qty **ss**.
- The point of intersection is the equilibrium point, consisting of the equilibrium quantity and price,.

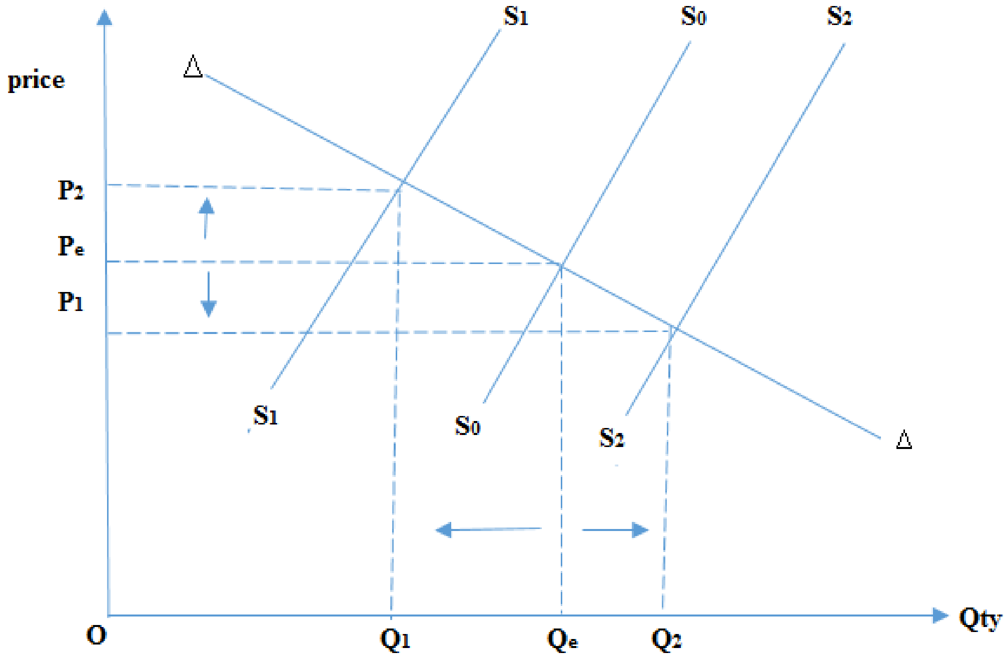
Px	**Dx**	**Sx**
1	500	100
2	400	200
3	300	300
4	200	400
5	100	500



Price 3 is the equilibrium price and quantity 300 is the equilibrium quantity

- The price above the equilibrium price supply increases but demand decreases and hence a surplus
- The price below the equilibrium price, supply decreases but demand increases and hence a shortage.

The effect of changes in demand of equilibrium point, price and quantity



The effect of change in supply of equilibrium point, price & quantity.

Demand and supply functions

- The demand function is a mathematical relationship between demand and factors that determine demand.

Qd = ***f*** (***P x, TP, Y, Pr, …………..)***

Whereby,

Px = Price of the commodity

TP = Taste and preference

Y = Income level of consumers

Pr = Price of related goods.

Since price is the major factor that affects demand, the demand function can as well be shown using the price quantity relationship as below;-

Qd = f(P)

The supply function is a mathematical relationship between supply and the determination of supply.

QS = f (P x, T, NP, Pr, GP, ……………)

Whereby,

P x = Price of the commodity

T= Time

NP = Number of Producer

Pr = Price related commodities

GP = Gestation Period

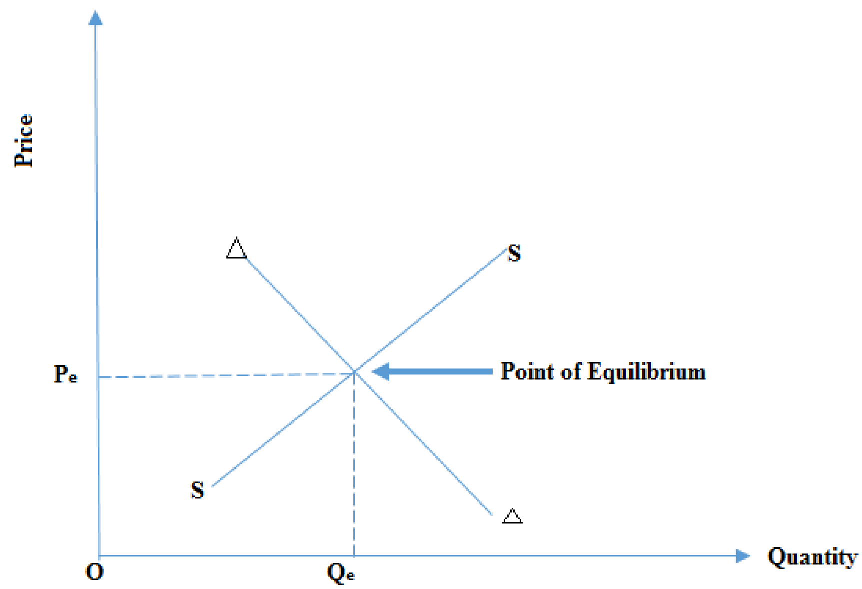
Since price is the major factor that affects supply, the supply function can as well be given as

Qns = ***f(P)***

WAYS OF PRICE DETERMINATION

1. **Price mechanism**

Under this, the price of the market is determined by the free interaction of the forces of demand and supply and hence determined at the point where the demand and supply curve intersect or meet.



2. **Sale Auction**

   The price is determined through bidding; therefore it is determined by the highest bidder

3. **Haggling**

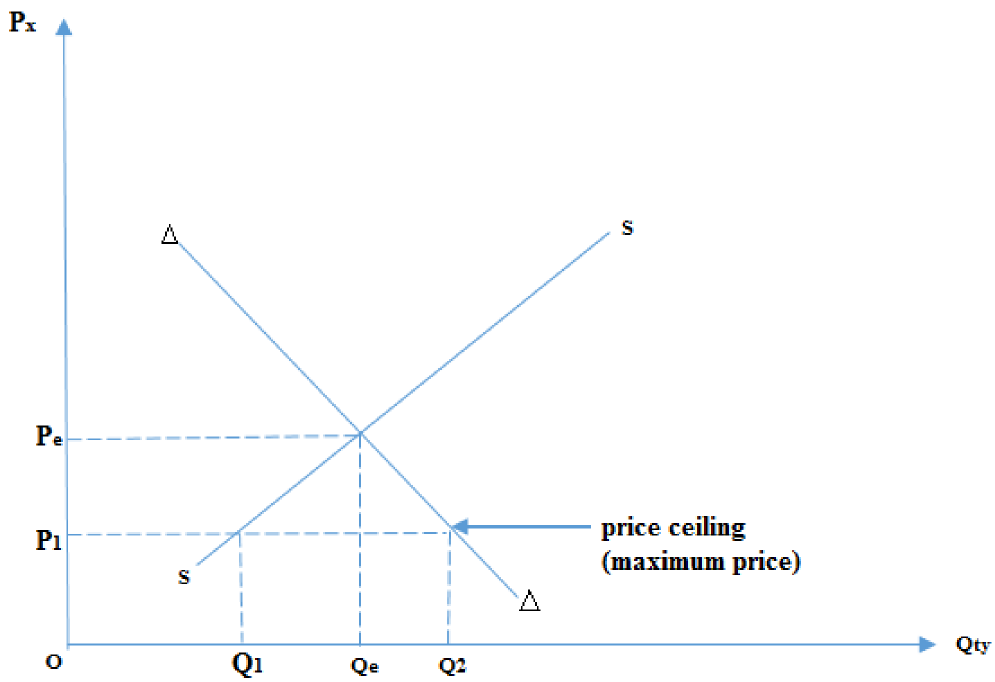
   This is through bargaining.

4. **Re sale price mechanism.**

   Under this the price of the product is determined by the producer.

5. The price can as well be determined by the government and this can either be a maximum or minimum price.

6. Price ceiling (maximum price) is the price which is set by the government below the equilibrium price, this is normally done during the period of shortage, when price of essential goods are excessively high. Therefore it aims at protecting consumers against such excessively high price.



Effects of Price ceiling

1. Demand will increase (to) hence a shortage (Q1-Q2)
2. Supply will decrease (to
3. Black market - sellers are going to sell products in order to create an artificial shortage
4. Corruption & far nism- they will sell the product to those who are willing to buy.

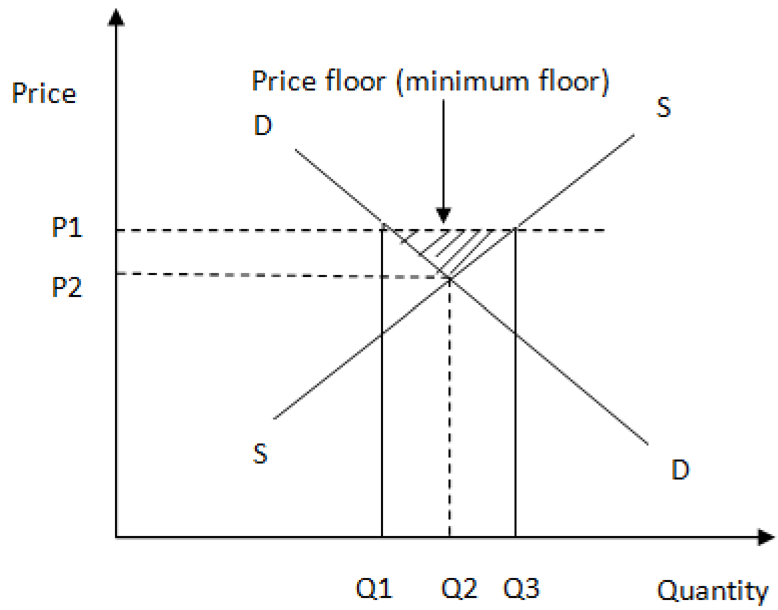
Advantages of price ceiling

1. It helps to control inflation.
2. It reduces exploitation on the consumers.
3. It allows consumers to easily access essential goods at affordable prices during periods of shortage.
4. It helps the government to win more support.

Disadvantages of Price Ceiling

1. Discourages producers.
2. It is expensive to administer.
3. It creates black market
4. Minimum Price (**Price Floor**)

This is the price which is set by the government above the equilibrium price. It aims at motivating producers after realizing that, the prevailing market price is low.



5. **Effects of Price Floor**

1. Supply increases from to
2. Demand decreases from to
3. Sellers will be tempted to decrease price in order to get rid of surplus.
4. It helps to improve the standard of living of workers.

Disadvantages of Price Floor

1. Over production
2. It results into cost-push inflation.
3. It can cause unemployment.
4. In case of minimum wage discourages investments.

THEORY OF MARKET

Meaning of market

Market refers to a situation where buyers and sellers are in close contact exchanging goods and services and the price of the commodity is being determined. Market can be a place or process.

Determinants or Essentials of a market

1. **Presence of a commodity**

In a market there must be commodities which have been brought for sale.

1. **Presence of Buyers**

   The people who are able and willing to purchase the commodities being sold at a particular price and time.

2. **Presence of sellers**.

   The people who have brought their commodities for sale.

3. **Location or Presence of an area (region)**

   Refers to a particular locale where the transactions are taking place.

4. **The Price**

   One price should prevail for the same commodity at the same time.

   Extent of the Market

   Refers to the size of the market. The market may be wide or narrow.

   The size of the market depends on the following factors;-

1. **Character of the commodity**

   In order to have a wide market a commodity must be;- (i) portable (ii) durable (iii) suitable for sampling, grading and exact description and (iv) such as its supply can be increased such commodities are wheat, gold, government securities etc.

   Bulky articles like brick and perishable articles like fresh fruits and vegetables have a narrow market.

2. **Nature of Demand**

   A commodity which is in universal demand e.g. gold & silver will have a wide market. Similarly, a commodity of general consumption has a wide market.

3. **Means of transport and communication**

The size of the market depends upon the extent to which means of communication and transport have been developed. Properly developed transport and communication systems enable commodities to be carried long distances and establish wide contact. Thus widen the market.

4. **Peace and security.**

Obviously, goods cannot be marketed in distant places unless peace and order prevail in war time. Due to insecurity in war zones, markets get restricted. The extent of the market depends on the peace prevailing in the region.

5. **Currency and credit system.**

If the currency and credit system of the country are well developed, marketing can be conveniently and profitably carried on over extensive areas. The extent of the market depends on the state of the currency and the confidence it inspires.

6. **Policy of the state.**

Markets may be restricted by the policy of the state. Prohibitive duties and quotas restrict the market. The zoning system eg: wheat zones, which allow free movement of goods only within a certain zone has the same effect. Thus the government policy can also affect the extent of the market.

7. **Degree of Division of labor**

We know that division of labor is limited by the extent of the market. The converse of this is also true. That is the extent of the market also in its turn depends upon the degree of division of labor. The greater division of labor, the cheaper the articles and wider the market.

FUNCTIONS OF A MARKET.

1. It facilitates the transaction by providing opportunity of buying and selling goods.
2. It serves as an outlet for the goods produced by various manufacturers.
3. It is a source of supply of goods of own consumer choice.
4. It helps to establish contact among buyers and sellers
5. It helps to maintain prices at a specific level
6. The market for a commodity helps to determine the demand for that commodity. A greater demand encourages firms to produce more hence increase in production.
7.

TYPES OF MARKETS

There are several ways of classification of markets. Some of these types are;-

A. Classification of a market according to what is bought and sold

1. **Product market**: Deals with selling and buying of final goods.

   E.g.: markets of sugar, rice, beans, etc.

2. **Factor market**: Deals with buying and selling of factors of production.

   E.g. labor market, capital market, and market for land

3. **Financial market**: Deals with selling and buying (exchange) of currencies.

The currencies are being sold and bought. E.g. market for foreign currency in Bureau de change.

B. Classification of markets according to the place where the product is bought and sold.

1. **Local market**: This occurs when a commodity is produced and

   Sold around the area of its production. Ego, local brew like "mbege" is sold around the areas of its production.

2. **National market**: It occurs when a commodity is bought and sold within the country e.g. a commodity which faces a national market is soap found throughout Tanzania.

3. **International market:** It occurs when a commodity is bought and sold

   In many countries of the world e.g. medicines fetch international market.

C. **Classification of a market according to commodity.**

1. **General market:** This type of market occurs when various commodities are bought & sold at any specific area. E.g. we can say Kariakoo is a general market.
2. **Specific market:** It occurs when only one kind of commodity is being bought and sold at a particular place. E.g. Dares salaam stock Exchange (DSE) where shares are only bought and sold.

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3. **Grading market**: This is a type of market which occurs when any commodity is sold & bought according to its grade.

D. Classification of markets according time.

1. **Day to day market**: This type of market which occurs when the price of any commodity is determined according to demand and supply conditions of that particular day.

   E.g. Saturday market, Wednesday market, It means supply can be increased beyond the existing stock of that commodity.

2. **Short period market**: It occurs when the price of a commodity is determined according to supply and demand conditions of that short period of time. In the short period a firm can have the variable inputs like labor, raw materials etc. In this case, the supply can't be increased beyond the existing capacity of the present firms.

3. **Long period market**: This kind of market occurs when the price of a commodity is determined according to the long run demand and supply conditions. In the long run period it is to change the amounts of factors of production such as establishing new firms, construct buildings etc.

E. Classification of a market according to situation & structure of market.

Market is based on the buyers and seller (degrees, types of commodities which are differentiated, and if there are some barriers). Based on this classification, markets have the following structures;-

i) Perfect market structure

ii) Imperfect market structure

MARKET STRUCTURE/SITUATION.

This refers to the conditions under which the market operates. This is classified based on;

1. The number of buyers and sellers
2. Nature of the commodity(homogeneous or differential
3. Freedom of entry and exist
4. Knowledge of the market situation.

Basing on the classification of the following out of the market structure

- Perfect market (perfect competitive market)

Perfect market structure

A perfect market structure is the type of market structure with high degree of competition in the market.

A market issued to be perfect is when all the potential sellers and buyers are promptly, aware of the price to which transactions take place.

This market structure is characterized by the following;-

1. **Large number of buyers and sellers**

Under this, there is a large number of sellers and buyers of the commodity in the market. Therefore a single buyer or seller cannot influence anything in the market for example the price and the output.

2. **Homogeneous Products**

The commodities produced by all firms are totally identical in all aspects. The commodities sold are similar in shape, colour, size, weight etc.Therefore a buyer has no specific preference to buy from a particular seller.

3. **Free entry and exit**

Any new firm is free to join the market and any already existing firm is allowed to leave the market.

4. **Perfect knowledge**

All sellers and buyers have full knowledge about the market condition such as the price of the commodity.

5. **Perfect mobility of factors of production.**

Factors of production such as labor and capital are perfect mobile both geographically and occupationally. Mobility of factors of production is essential to enable firms and the industry to achieve an equilibrium position.

6. **Profit and utility maximization.**

The major goal of a firm is to maximize profit and that of the buyer is to maximize utility.

7. **No transportation cost.**

Under this market structure it also assumed that there is no transport cost for example in the movement of goods, raw materials and so on. If the cost of transport is to be there, the prices must differ to that existing in different sector of the market.

8. **The price is constant.**

Under perfect market structure the price is constant, whereby;-

P = AR
AR = (P x Q)/Q
: AR= P
where by AR=Average
P=Price
Q=Quantity

CRITICISM OF A PERFECT MARKET.

A perfect market is theoretical concept between does not exist in real life situation. The conditions under which a perfect market exist are unrealistic due to the following reasons;-

1. The number of buyers and sellers may be small
2. The commodities are differentiated or substitute for almost every commodity.
3. There are restrictions to entry and exit.
4. There is no perfect mobility. There are some limitations to the factor mobility.
5. There is preference treatment the supplies discriminate price and provide special services to some customers.
6. For single sellers may be able to influence the price e.g. in a monopoly single sellers may influence price.
7. There is imperfect knowledge of the market situation hence there is a need to advertise.

REASONS FOR STUDYING A PERFECT MARKET.

1. There are some markets which have a perfect market. E.g. the market for the agricultural products.
2. A perfect market provide a model for studying realistic market structure
3. It is applied when adopting price control.

PROFIT MAXIMIZATION UNDER PERFECT COMPETITION.

In short run profit maximization

- Under perfect market competition to maximize profit, the following conditions are most;-

1. Marginal cost must be equal to marginal revenue i.e.

   MC = MR (necessary conditions but not sufficient)

2. Marginal cost curve must cut marginal revenue curve from below at highest level of output and sufficient condition.
3. Price > AC

Note. The firm makes super normal profit due to limited firms in the market.

TR = P x Q

Total revenue is a product of price and quality.

Average revenue is revenue per unit of output. The ratio between revenue and output.

AR = TR/Q

And
TR = P X Q
AR = (PX Q)/Q

AR = P

And

AR = TR/Q

And
TR = P X Q
AR = (P X Q)/Q

AR = P
Where by TR=Total Revenue

MARGINAL REVENUE (MR)

Is the additional to the total revenue resulting from selling one exist unit of output.

The rations between change in total revenue and change in output

$$MR = \frac{\Delta TR}{\Delta Q} = \frac{\text{Change in Total Revenue}}{\text{Change in Total Quantity}}$$

$$MR = \frac{\text{change in P x change in Q}}{\text{Change in Q}}$$

or

$$MR = \frac{\Delta P \Delta Q}{\Delta Q}$$

But price do not change hence MR = P

6. In a perfect market there is perfect factor immobility i.e. the factor of production are free both occupation and geographical.

7. There is perfect knowledge of the product situation on the sense that buyer are aware of the price quality of the commodities hence no need of advertising of revenue.

8. No transportation costs, to sense that the price remain uniform across all the market.

IMPERFECT MARKET STRUCTURE

The imperfect market structure is divided into the following market as follows.

- Monopoly
- Duopoly
- Oligopoly
- Monopolistic competition

OLIGOPOLY MARKET

Oligopoly is the market structure which is characteristic by few firms operating with significant barriers to entry of the firm.

Oligopoly comes to exist when economies of scale or advantages of large scale production exist. On such a large dimension that only such as firm or firm are advantage of extremely economic production which can produce on a scale.

FEATURES OR CHARACTERISTICS OF OLIGOPOLY

1. Few, unequal competition among firms.

Each firm is faced with competition from other firms. Through market power and therefore cannot be a price taker.

1. Non price competition of advertising.If one firm reduces the price other would do the same and all firm would end up losing.
2. Firms are closely dependent to each other. A firm can reduce the price when other firms reduce the price.
3. In most cases there is product differentiation
4. No easy entry into the industry
5. Price output decision are very difficult
6. Inter dependency among various firm

TYPES OF OLIGOPOLY

There are two important sub types of oligopoly

1. Pure oligopoly or perfect oligopoly
2. Imperfect oligopoly

ADVANTAGES OF OLIGOPOLISTIC MARKET

- Existence of competition leads to production of goods with quality and great quantity.
- Consumer enjoys a whole variety of product due to product of differentiate product (increase of important oligopoly)
- Stable prices are charged as there is price rigidity
- Abnormal profit are enjoyed both in the short run and in the long run
- It is a source of government's revenue through taxation

DISADVANTAGES OF OLIGOPOLY MARKET

- Product of excess capacity leading to under utilization of resources
- There is unemployment of the labor because of producing at excess capacity.

In the long run equilibrium are attained at a point where long run MC curve = MR output.OQ is produced and sold at OPC normal profit is earned by all firms.

Because of free entry of new firms in the long run the demand for the product is shared more

Therefore the demand curve is tangent to the AC.

STRATEGIES USED BY OLIGOPOLY FIRM TO AVOID PRICE WAR.

- **Collusion** refers to an agreement among firms in an industry to decide the market up and fix the price i.e. agree on the price and output rates in order to decrease competition and increase profit.
- **Formation of a cartel.**

A cartel is a group of firms that agree to avoid competition, so they can act as a single monopoly and earn monopoly profit. Cartels are more collusive when the goods supplied are homogeneous e.g. oil, steel.Example of cartels is OPEC.

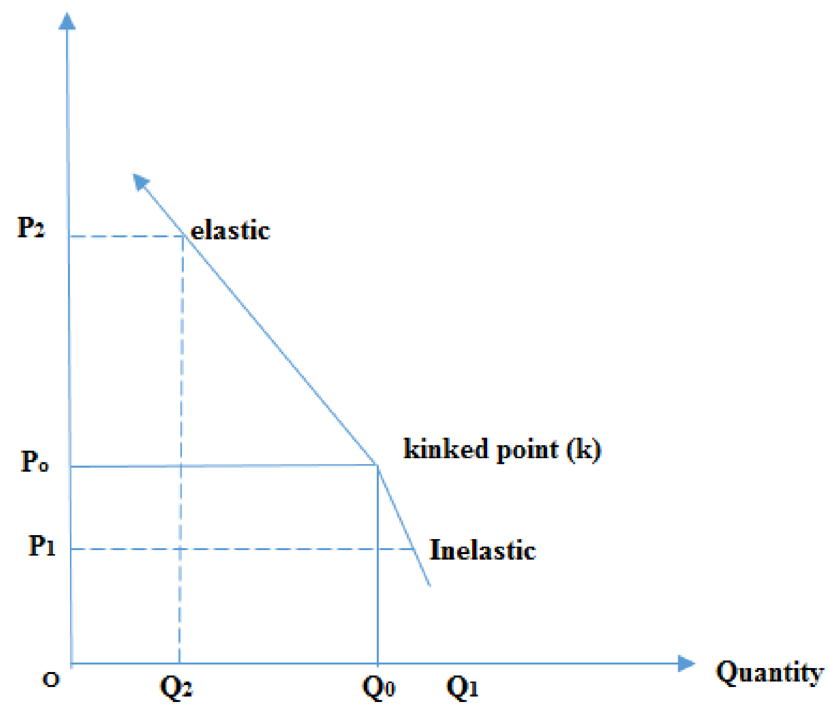
- **T**here is consumer exploitation because there are few firms and each firm has a control or influence over the market conditions.
- There is restriction of output because the supply of each firm depends on its.
- It incurs high selling cost in terms of adverting and sales promotion.

THE THEORY OF KINKED DEMAND CURVE-The theory of kinked demand curve has been developed explaining the price inflexibility that characterizes oligopoly.

A kinked demand curve is a curve in the oligopoly market whose price is elastic above administered price and inelastic below administered price.

THE KINKED DEMAND CURVE

DIAGRAM



From the graph OPO is administered price and OQ_2 is the output and K is the kinked point.

- If a firm in the oligopoly market lowers the price in an oligopoly market (OP_1), other firms will also follow and lower their prices. The curve shows that as the demand will be elastic.
- On the other hand if a firm in an oligopoly market raises his price (OP_2) other firms will not thus rise their prices thus demand will be highly elastic.

ADVANTAGES OF MONOPOLISTIC COMPETITION

- Product differentiation enables consumers to get varieties of a product.
- Firms compete to make improvement on the quantity of product
- In case one firm collapses, substitutes are available.
- The price change is lower than that of monopolist because of competition from the substitutes.

DISADVANTAGES OF MONOPOLISTIC COMPETITION

- There is under utilization of the firm in the short run and in the long run there is excess capacity.
- In the long run there is no profit to enjoy economies of scale.
- The price charged on buyers is higher than in perfect competition.

- In the long run there are no profits to invest in research since the firms earn normal (zero) profit.
- To maintain the market share the seller has to advertise thus increase cost and price.

PROFIT MAXIMIZATION UNDER MONOPOLISTIC COMPETITION

COMPETITIVE MARKET

(How price and output determine monopolistic competition)

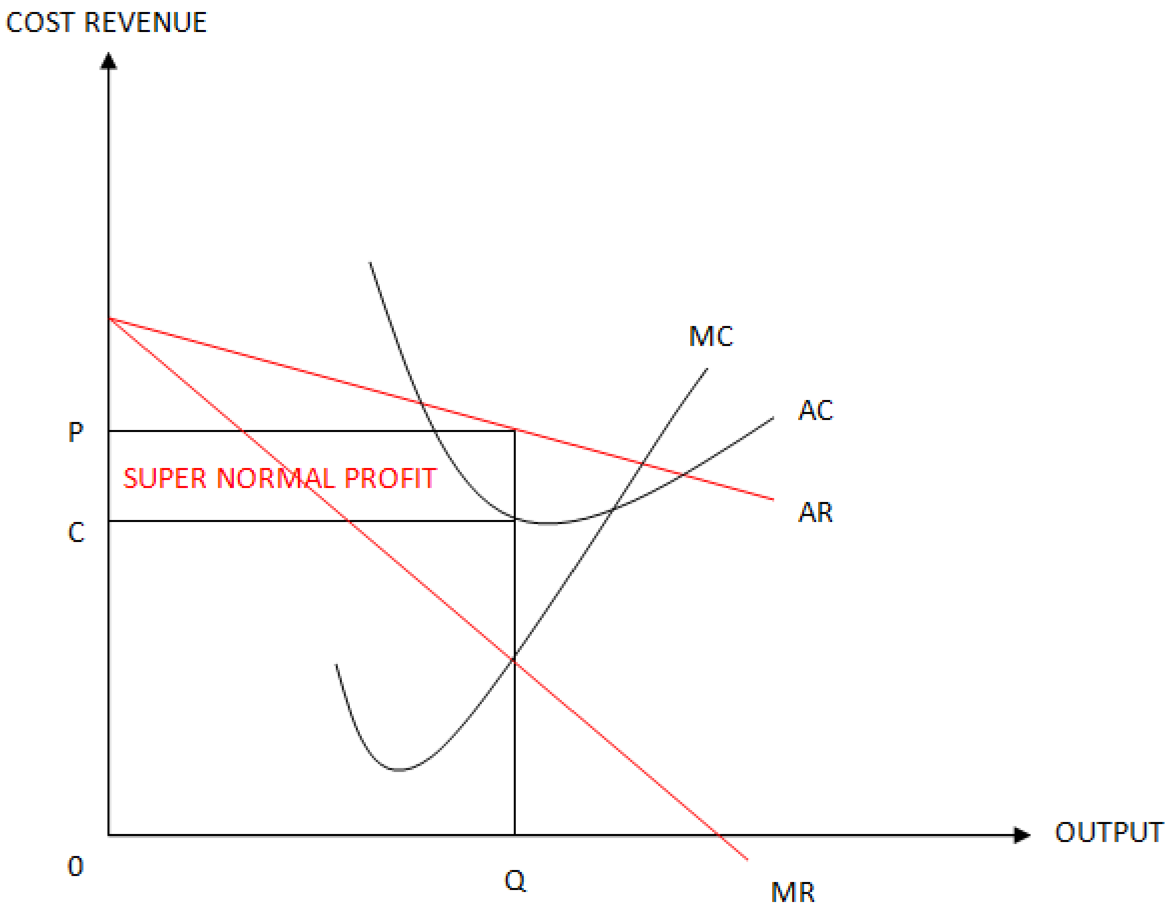
1. **IN THE SHORT RUN**

-A firm maximizes profit when,
P=Price
MC=Maginal Cost
MR=Maginal Revenue
AC=Average Cost

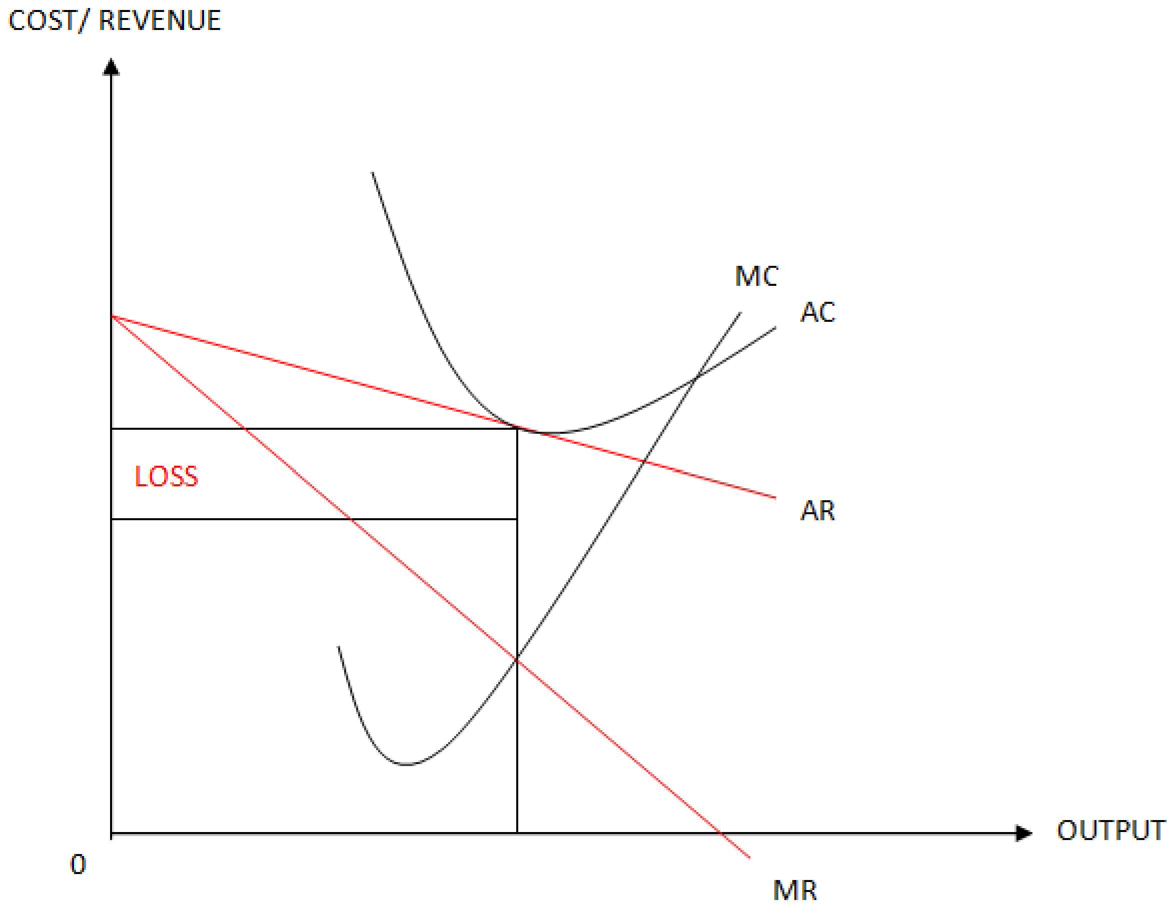
1. MC = MR
2. MC curve should cut MR curve at the highest level of output
3. P>AC (AR > AC) and hence the firm earns abnormal profit
4. A firm produces at excess capacity because it produces less than the optimum point.

DIAGRAM

From the graph the firm maximize profit equilibrium point where MR = MC
SHOWS A FIRM MAKING SUPER NORMAL PROFITS



<u>LOSSES ARISE WHEN COSTS RISE OR DEMAND DECREASES.</u>



II **IN THE LONG RUN**

In the long run firms maximize profit when

1. LMC = LMR
2. LMC must cut LMR at the highest level of output
3. P = LAC

DIAGRAM

PQRS is the loss that is sustained by the monopolist in the short run period.

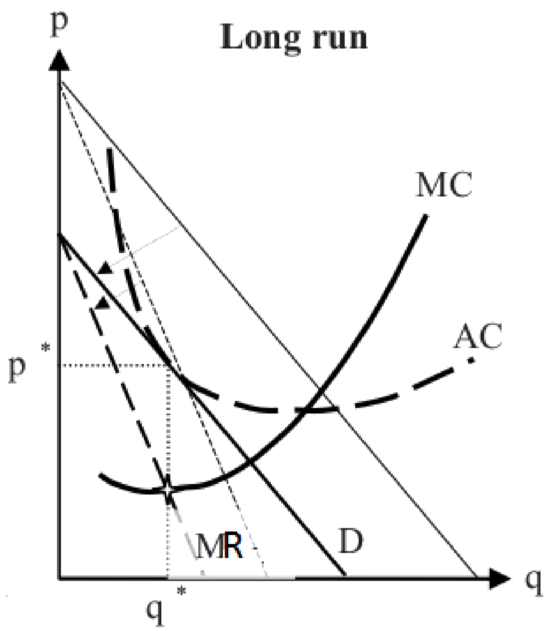
b. **MONOPOLISTIC COMPETITION**

Is a type of market structure which is characterized by many firms which are fewer than in a perfect competition.

FEATURES OF MONOPOLISTIC COMPETITIVE MARKET.

- There are many suppliers fewer than in perfect competition
- Non- homogeneous goods (product differentiation) but they are close substitutes. Its differentiation many be inform of packing, decision, quality, branding etc.
- There are barriers to entry which are insufficient to prevent other firms from entering in the long run.
- Firms have a degree of market power and therefore it forms a downward slopping demand curve.

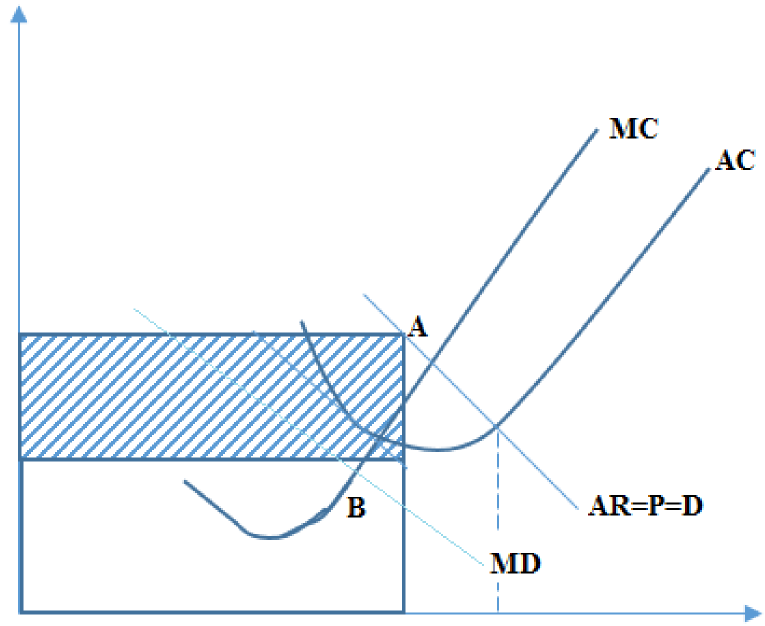
DIAGRAM



The demand curve in a monopolistic competition is more elastic than that of a monopoly because of the presence of substitute. MR is below the AR as in case of monopoly, the demand curve is downward slopping because each firm has monopoly power over its product and is not a price taker.

- There is need for persuasive advertising in monopolistic competition.

DIAGRAM



From the graph, the firm makes profit at output OQC.If the firm produces more than OQC it would make MC>MR thus equilibrium point is at B where marginal cost is equal to marginal revenue i.e. MC = MR.

A monopolistic firm produces at excess capacity i.e. OQ is below the lower point of AC curve which is at point O, since costs are still falling the firm could still produce more output to OQ not in order to keep the price up, it produces less than optimum.

A monopolistic has no supply curve because it is the sale controller of all the output and there is no unique relationship between market price and quantity supplier in other words. Monopoly firms are the same as industry.

WHEN MONOPOLIST FIRM MAKE LOSS

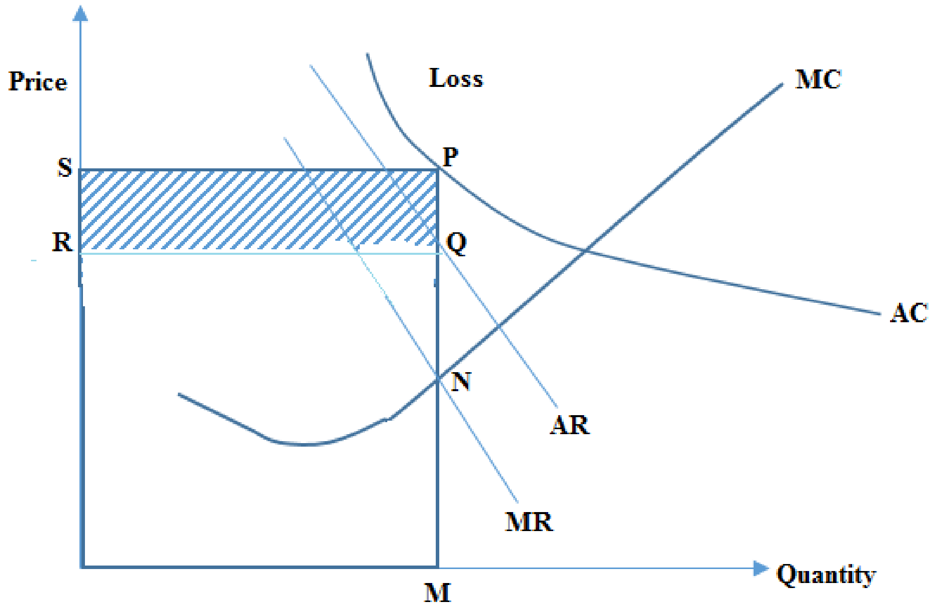
Sometimes monopoly makes loss even through its curve

In the short run when demand and cost situation is not favorable the monopolist may undergo less and it occurs when

(i) MC = MR

P< AC

DIAGRAM



$MR = (160 - 100Q)Q$

$MR = 160Q - 100Q^2$

$MC = MR$

$^{-}40 = 160Q - 100Q^2$

$^{-}40 = 160 - 200Q$

$200 = 200Q$

200   200

I = Q

For M = TR = $(360 - 4Q)Q$

$MR = 360Q - 4Q^2$

$MR = MC$

$360 - 8Q = {}^{-}40$

$400 = 8Q$

8 8

50 =Q

PK = 160 – 100Q

PK = 160 -100

PK = 60

PK = 60 units

Price of kanyama is 60 units

PM = 360 – 4Q

But Q = 5O

PM = 360 – 200

PM =160 units

Price of msichoke is 160 units

HOW TANESCO MAXIMIZE PROFIT

$MC = MR + MR_2$

$-40 = 160 – 200Q + 360 – 8Q^2$

-40 = 520 – 208Q

208Q/208 = 560/208

Q = 2.69.

PROFIT MAXIMIZATION UNDER MONOPOLY MARKET STRUCTURE

The monopolists maximize profit when,

1. MC = MR
2. MC curve must cut MR curve from below at the highest level of output.
3. **NB** the firm makes super normal profit both in the short run as well as in the long run because there are barriers which restrict the entry of new firms in the market

ADVANTAGE OF PRICE DISCRIMINATION

1. It enables the poor to get essential services at low prices e.g. cheap houses for civil servants, doctor charges low price on poor patient.
2. To the produce, it increases total revenue because output sold has increased
3. It is a one way in which the rich subsided the poor thus a method of income redistribution.
4. It increases sale and consumption
5. It helps countries to dispose surplus commodities e.g. dumping

THE WORKED EXAMPLE BELOW

Tanesco offer electricity to two consumer kanyama and msichoke the prince of electricity of kanyama is given by the equation PK = 160 – 100Q while that of msichoke is given by the equation PM = 360 – 4Q

If the production cost for two consumers is given by the equation TC = 100 – 40Q.find;-

1. Among the consumers who demanded at the industrial rate and the demand at a domestic rate.
2. Compute average fixed cost (AFC) in each market
3. Briefly explain the five conditions necessary for price discrimination to take place

Solution

MR = (160 – 100Q)Q
MR = 160Q – 100Q2
MC = MR
-40 = 160Q – 100Q2
-40 = 160 – 200Q
200 =200Q
200   200
I = Q
For M = TR = (360 – 4Q)Q
MR = 360Q – 4Q2
MR = MC
360 – 8Q = -40
400/8 = 8Q/8

50 =Q
PK = 160 – 100Q

PK = 160 -100
PK = 60
PK = 60 units
Price of kanyama is 60 units
PM = 360 – 4Q
But Q = 5O
PM = 360 – 200
PM =160 units
Price of msichoke is 160 units

- Msichoke demanded electricity at domestic rate due to high price while Kanyama demanded electricity at industrial price due to low price.

2. Discrimination according to sex or age i.e. charging low price on the young people than old.

3. It may be geographical e.g. dumping where commodities are sold cheaply in another country to drop off surplus

4. Carried out according to the time of service e.g. tickets for videos are charged at higher price in afternoon where there are many people than in the morning hours where people are few.

5. Discrimination according to nature of product e.g. branded commodities are charge higher price than unbranded commodities of the some type.

6. Discrimination according to use of the product e.g. low transport charge for input and high transport charges on luxuries (for input and high transport and some distance).

7. Discrimination by differences of the commodities e.g. higher price on travelers in first class in the train and low charge for other classes.

CONDITIONS FOR PRICE DISCRIMINATION

1. The commodities must be sold by the monopolist.
2. The price elasticity of demand should be different in different markets i.e. a higher price should be charged where price is elastic.
3. The cost to divide the market should be very low e.g. in case of dumping, cost of transportation should be below.
4. Buyers should not know how much is charged in another market. This is possible especially where goods and services are sold on the other.
5. It should be impossible for buyers to transfer the commodities from where the price is low to the where the price is high.

NB;

1.price discrimination may also be used to sell units of the same commodities at different prices to the same customer e.g. telephone charges high on first 3 minutes and then low in the other.

1. Monopolist firm produce of excess capacity i.e. they under utilize their plant so as to produce less output and sell at a high price.
2. Monopoly firm may charge higher price hence affecting consumption to low income earners.
3. In case monopolist stop producing there will be shortage of commodities due to lack of substitutes.
4. Monopolists tend to extend pressure on the government at times as they can influence decision making because they are the controllers of production.

MEASURES TO CONTROL MONOPOLY

1. The government can fix prices of commodities
2. Taxation. The government can impose taxes on monopolist firms to take away the abnormal profit. However the monopolist can shift the burden of taxes on to the buyers in the form of raised prices.
3. Anti monopoly (anti trust) registration i.e. laws should be imposed to control monopoly by the firms to rise price to inhibit competition
4. Nationalization of monopoly firms by the government
5. Subsidization. New firms can compete with the monopolist firm.
6. Removing the basis of monopoly e.g.by removing tariffs so as to allow imported goods to compete with the home products.

PRICE DISCRIMINATION

Price discrimination is a process of charging different prices of the same commodity to different buyers.

Price discrimination exists when a commodity is sold at different prices in respective of the cost of production

FORM OF DISCRIMINATION

1. Discrimination according to personal income

Income differentiation among buyers e.g. doctors charging low prince on the poor and high prince on the rich for the same sectors.

2. Cost of production leads other firms require large which is different to be raised.

3. Government franchise. Sometimes the government protects certain producers to be only sellers of a certain product e.g. Tanesco in Tanzania.

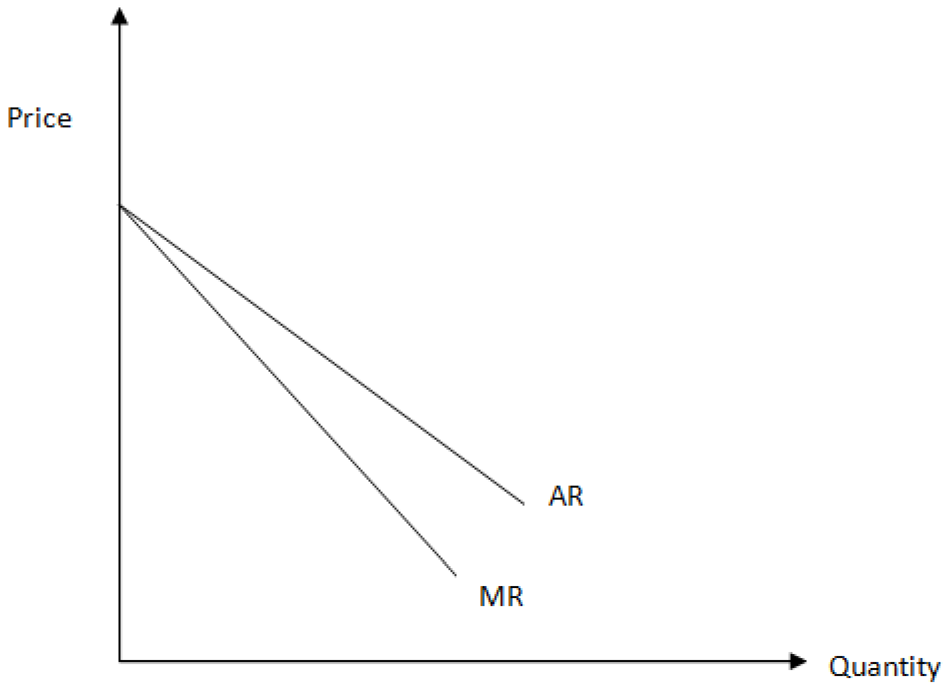
ADVANTAGES OF MONOPOLY MARKET

1. There is no duplication of services.e.g. If there is one hydroelectric power plant, there may not be the need to set up another one in the same area.
2. Economies of scale can be exposed in firms because it is capable of expanding using an abnormal profit earned.
3. There is a possibility of price discrimination i.e. selling the same commodity at different prices which benefits low income earners.
4. Research can easily be carried out using the super normal profit.
5. There is wastage of resources in persuasive advertising which leads to increase in price.
6. Public goods like road telephone etc are easily controlled by the government as a monopolist.
7. Infant industries can grow up when there is monopoly as they are protected from competition.

DISADVANTAGES OF MONOPOLY MARKET

1. The firms can become inefficient and produce low quantity product because of absence of competition.

DIAGRAM



The MR curve for the monopolist firm slopes downward from left to right because when more commodities are put in the market the price fall therefore MR decreases.

Its decrease curve is inelastic in nature because of changes of price in the market.

FACTORS WHICH GIVE RISE TO MONOPOLY

1. **Ownership of natural resource**

E.g. Tanzania is the only supplier of tanzanite in the world because it is only found in Tanzania.

2. Function of monopoly association (Margie) e.g. OPEC (organization of petrol exporting countries)

3. **Protectionism**

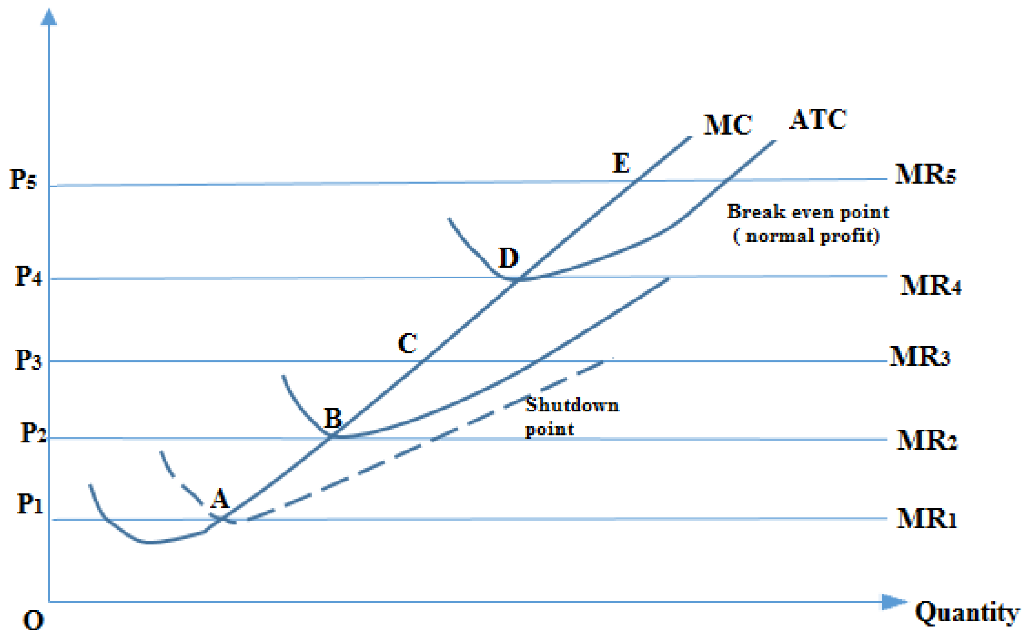
The barriers are imposed on the product to include foreign competitors in such as the producers may become monopoly.

1. Protect rights e.g. writer of the book where the law forbids other firms dealing in the commodity.
2. Advantages of large scale production which do not allow small competitors compete successfully in the large firm.
3. Long distance between producers where each producer monopolize the market in his/her locality.

Shut down point

Is a point which occurs when the firm covers only the variable cost at this point the firm is advised to close the firm.

DIAGRAM



MONOPOLY MARKET STRUCTURE

Monopoly is the market situation where there is one seller of a product which has no close substitute.

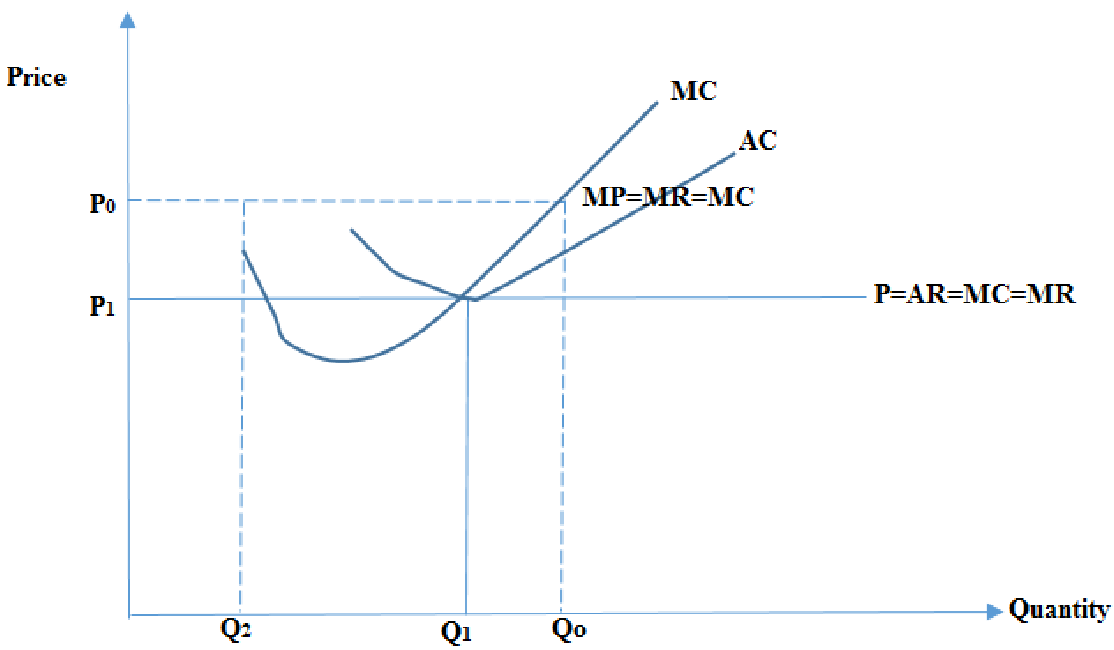
Monopoly is a word derived from Greek word "mono"which means one (single and "poly"means seller or firm. Monopoly is imperfect market structure where there is a single seller of a commodity.

NB: A monopoly firm is also an industrial.

CONDITIONS FOR MONOPOLY

1. There is one firm (single seller) which deals with a product that has no close substitute e.g. TANESCO,DAWASCO etc. in Tanzania
2. There are barriers / restrictions on entry by other firms into the industry.
3. Monopolist is the price maker i.e. the supplier is the one who determine the price of the commodity.
4. Demand curve slopes downward from left to right because the monopolist increases revenue he has to reduce price that MR< AR because price is not constant

DIAGRAM



- From the curve the monopolist earns maximum profit at M where H it produces above this point, it makes losses because MC > MR
- If it produces below this point (less than QQo) it would make less profit because of producing low output.

  Thus for the firm to maximize profit, should produce an output where MC = MR

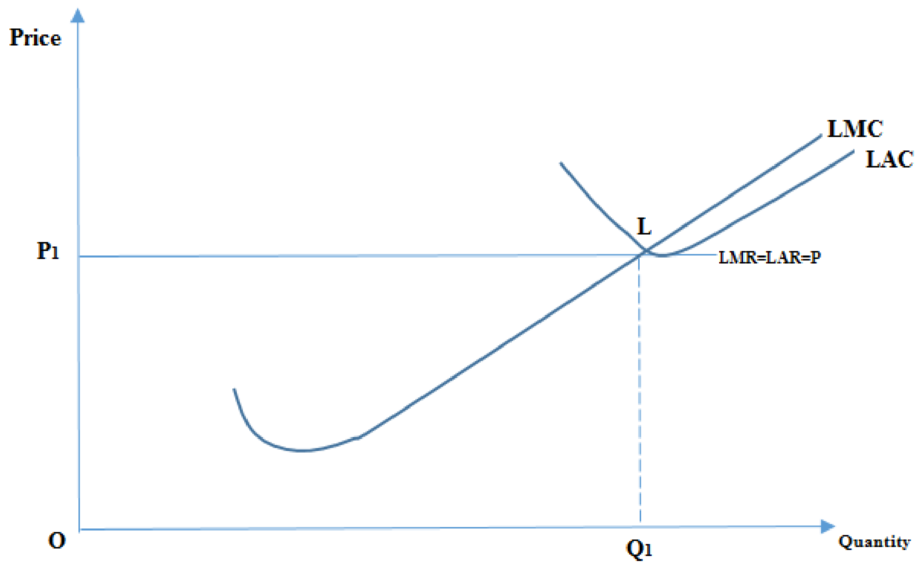
2. **Long run profit maximization.**

The firm maximizes profit in the long run when;

1. MC must be equal to MR
2. LP = LAC

- Because of free entry of the firms. Other firms are attracted by the abnormal profit to join the market and hence form the industry as a result total output would be increasing leading to fall in price and fall in profit until when firm SRRT has normal profit.

Diagram



From the graph the firm maximize profits at point L which LMC i.e at an output QQ1.

THE SHUT DOWN POINT AND BREAK EVEN POINT.

- **Breakeven point.**

  Is a point which occurs when the firm covers all costs of production i.e., variable and fixed costs. That is firm's total revenue is equal firm's total cost TR = TC

THE THEORY OF THE FIRM

Introduction;

The theory of the firm is concerned with how the production process is organized such as the scale or size of units. In discussing scale or size must distinguish between firm's plant and industries.

A PLANT

Refers to the physical establishment of capital used in production and distribution of goods and services.

OR

Is the smallest business productive unit owned by the firm.

It refers to the production units devoted to creation of particular goods and services such unit will have a distinct output or range of output in the form of goods and services.

A FIRM

Is any productive business unit with its own or more management and control eg KTM, MUTEX, IPP MEDIA in Tanzania.

AN INDUSTRY

Is the sum of all firms that produce similar line of products but being differentiated interms of color, labels, grades e.g. textile industry, building industry and cement manufacturing industry in Tanzania.

OBJECTIVE OF A FIRM

The primary objective of any business firm is to maximize profit, other objectives may be;-

1. Maximize output.
2. Maximize sales and total revenue.
3. Employment creation.
4. Cost minimization.

LOCATION OF THE FIRM

Refers to the establishment of the firm to an area or place irrespective whether other firms exist or do not.

FACTORS CONSIDERED IN ESTABLISHING A FIRM

Producers usually consider many factors before establishing a firm so as to produce at less quality earns much revenue and maximize profit. These factors include;

1. **Raw materials.**

   The producer would prefer to establish a firm where there are raw materials. That is the case when raw materials are bulky or perishable which are difficult to transport.

2. **Market**

   The firm is located near the market especially when final products are bulky or perishable E.g. furniture making, milking process etc.

3. **Power**

It attracts industries especially when power is difficult to transport or when it is bulky.e.g steel industries.

4. **Transport**

   Most firms are built near transport routes Eg roads or harbors to make easy transportation of goods from factories to the market.

5. **Water**

   This is when water is used as an input eg production of hydro-electricity, beer.

6. **External economies of scale**

   Most firms are located where others already exist so as to share the same facilities enjoy external economies of scale.

7. **Government policies**

   The government can establish or encourage the establishment of a firm in an area to create employment or as a policy to balance development.

   LOCATION OF THE FIRM

Refers to the concentration of firms in one area.

OR

The establishment of firms in a place where other firms already exist because or proximity to raw materials, power, market etc.

ADVANTAGES OF LOCATION OF THE FIRM

1. It encourages the establishment of other related business enterprises in one area ie Bank, insurance agent etc.
2. Helps to employ more skilled and experienced staffs.
3. Outputs of some firms may be used as inputs of other firms.
4. Increases production and reduces the transport cost.
5. Easy to get loans from financial institutions because it is easy to be trusted.
6. Enable the workers from one firm to share skills and experience to the workers of the other firms.

DISADVANTAGES OF LOCALIZATION OF THE FIRM

1. It may result into congestion of population in one area or town hence difficult to provide all necessary needs ie Housing, education, health Center etc.

2. It may lead to the underdevelopment of some parts of the country because people migrate from one part to another where there are few firms on another part, where there is more firms on industries to secure employment.
3. It is not desirable to have many firms in one area only especially when an event occurs eg calamities.
4. This can lead to unemployment of large number of workers especially when the industry or firms are forced to close.

CONCEPT OF COSTS

- Cost refers to the expenses incurred by the firm to secure factors of production. Cost of production affects the supply in the two ways;

1. It determines the quality to the produce by the particular firm.
2. It determines the number of firms in the production of a particular commodity.

VARIOUS CONCEPTS OF COST

Refers to the exception of all different kinds of cost that are directly or indirectly involved in making it together with obstinacy or rather the waiting required to saving the capital used in making it.

- It includes;

1. Exertion of all kind of labor.
2. Waiting and sacrifice required for saving capital.

NOTE

It is more psychological concept to and cannot be measured thus it is not applied in actual price.

PRIVATE AND SOCIAL COSTS

PRIVATE COSTS

Refers to all expenses incurred by a person or producer in producing of commodities E.g. for a factory i.e. private cost is the expenses on raw material, power electricity wages, and transport.

SOCIAL COSTS

Refers to the cost which falls on the society during the course of producing commodity.

Thus in social cost we include not only the cost to the firm or producer but also costs by the society in order to produce that commodities.

Social cost includes washing bills for others. Medical bills and pollution due to smokes that emits from the chimneys of the factory, road maintenance, road accidents etc.

MONEY COST

Refers to the monetary expresses incurred by the firm in producing a commodity. It is measured interms of money, sometimes it is known as PRODUCTION COSTS .This total money include

1. Implicit cost.
2. Explicit cost.

IMPLICIT COST

Refers to the implicit cost of the factors of production owned by the producer himself which are left out in the collection of the expenses of the firm.

They are called implicit costs because producers do not make payments to others for them. Eg rent of his own land interested on his own capital and salary for his own services as a manager.

EXPLICIT COST

Refers to the actual payment made by the firm for purchasing or hiring resources or factor services e.g. labor, wages, capital (interest), land (rent) and payment of raw material.

NOTE

The difference between implicit cost and explicit cost is that in explicit cost payment is made to others while in implicit cost payment is not made to others.

OPPORTUNITY COSTS /ALTERNATIVE COSTS

Is the amount of other goods which have to be given up in order to produce one additional unit of commodity i.e. the cost of forgone alternative. E.g. if with given resources wheat worth's Tsh 500 or alternatively rice worth is Tsh 400 can be produced on the plot of land.

We can say that opportunity cost of wheat is the rice which worth Tsh 400.

COST FUNCTION

Refers to the functional relationship between cost and quality produced.

I.e. $C = f(QX)$

Where,

C = cost function.

QX= Quantity produced of x goods.

- The cost function of a firm depends on two things;

1. Production function.
2. Price of the factors of production.

PRODUCTION FUNCTION

Tells in that the amount of output depends on the quality of the factors of production i.e output of the firm the high would be its production cost.

TOTAL COST

Refers to the total expenses incurred by the firm in the production process.

TC = TFC + TVC

Where

TC = Total cost

TFC= total fixed cost

TVC = total variable cost

TOTAL VARIABLE COST (TVC)

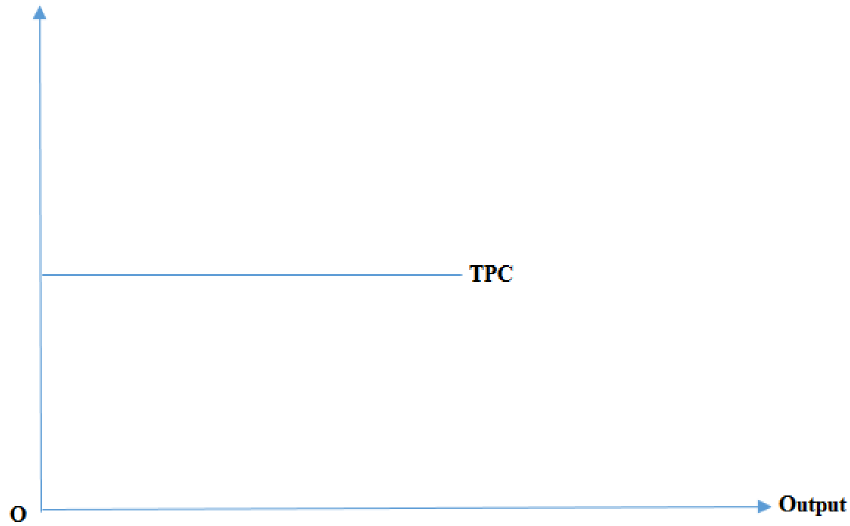
Refers to the expenses incurred on the variable factors of the production on the cost that vary directly with the output e.g. expenses on raw materials, power and fuels, wages of daily labours etc.

- It is sometimes known as PRIME COST.

FIXED VARIABLE COSTS / SUPPLEMENTARY COSTS / OVER HEAD COSTS

Fixed costs are the expenses incurred on the fixed factors on production i.e. they do not vary with the output. E.g. rent, interest, insurance, premium, salaries of permanent employs etc.

A GRAPH OF TFC CURVE



- TFC curve is a horizontal curve parallel to the x – axis which tells us that total fixed cost remains the same at all levels of output.

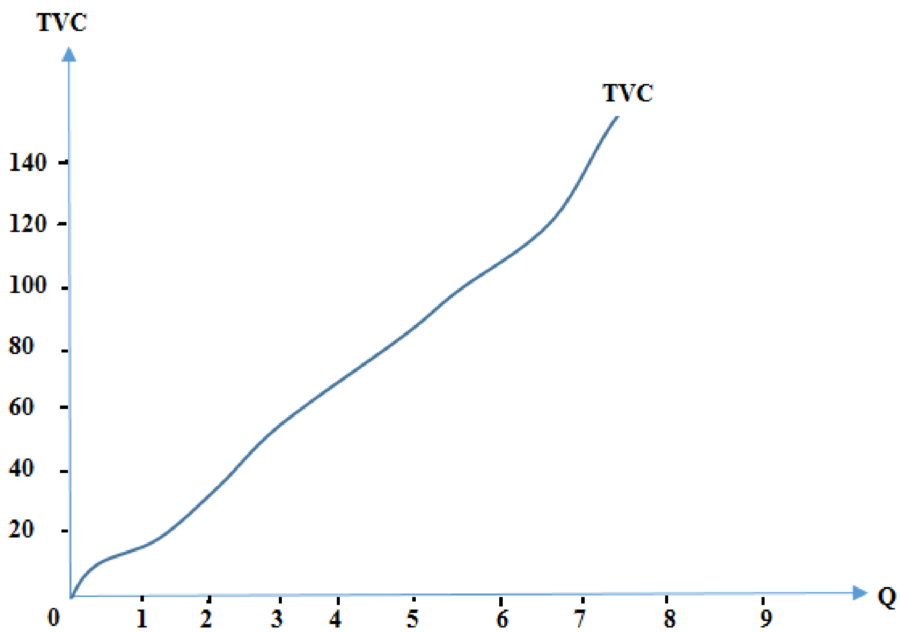
TOTAL VARIABLE COST

Refers to the cost which very directly with the output i.e. rising as more is produced and falling as left is produced. They are also called prime cost or special cost or direct cost or avoidable costs of wages of temporary labors, raw material, fuel, electric power etc.

TVC = QX factors cost.

Q	**TVC**
0	0
1	18
2	30
3	40
4	52
5	65
6	82
7	100
8	140

GRAPH



From the above graph and table TVC increases directly with the value of output

TOTAL COST

Total cost means the total cost of producing any given amount of output. It is obtained from the addition of total fixed cost and total variable cost.

I.e. TC = TFC + TVC

NOTE

TC is a function of total product and varies directly with it.

I.e. TC = f (Q)

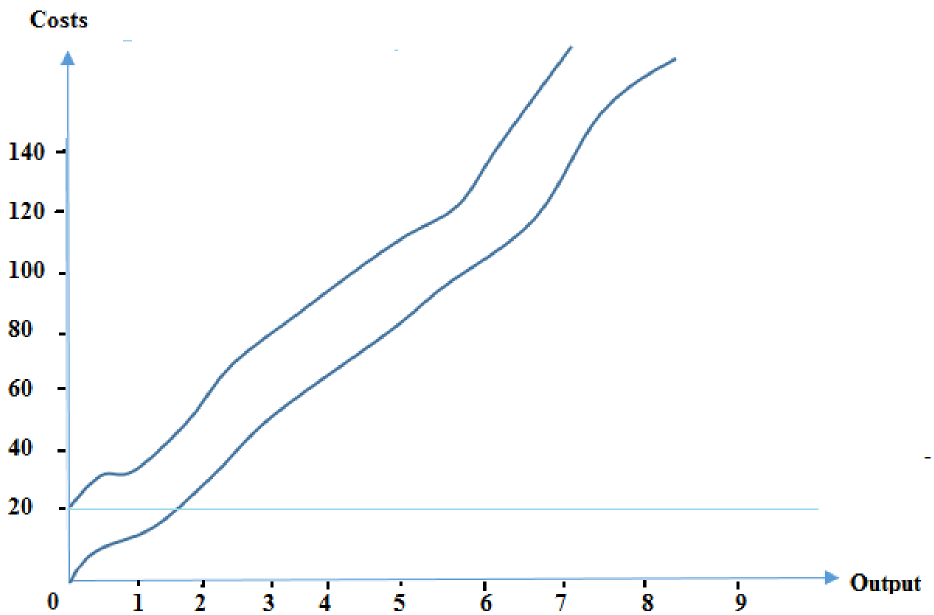
Thus the total cost curve is obtained by adding TFC and TVC curved vertically at each point.

Relationship between TFC, TVC and TC

Output	**TFC**	**TVC**	**TC**
0	20	0	20
1	20	18	38
2	20	30	50
3	20	40	60

4	20	52	72
5	20	65	85
6	20	82	102
7	20	100	120
8	20	140	160

GRAPH



From the graph and table make the following:-

1. Assuming there is no implicit cost

   TC = TFC + TVC therefore TC –TVC. The gap between TC and TVC represents TFC and therefore is constant.

2. When output is zero there is no variable cost in current.

   TVC = 0 so TC = TFC

3. As output increases TVC and TC increases also. TC increases by the same amount as TVC because TVC are fixed at all level of output i.e. TC = TVC + TFC. TFC is constant therefore increase in TC is due to increase in TVC.

VARIATION OF COSTS IN THE SHORT RUN

It is in the short run we have fixed cost in the long run all costs short run we have fixed cost in the long run all costs are variable to analyze the relationship between costs and output we use average and marginal costs instead of using totals.

Therefore cost can be described as;

1. Average total cost (AC)
2. Average fixed cost (AFC)
3. Average variable (AVC)
4. Marginal cost (MC)

Average Total cost (ATC)

Refers to the total of producing per unit output.

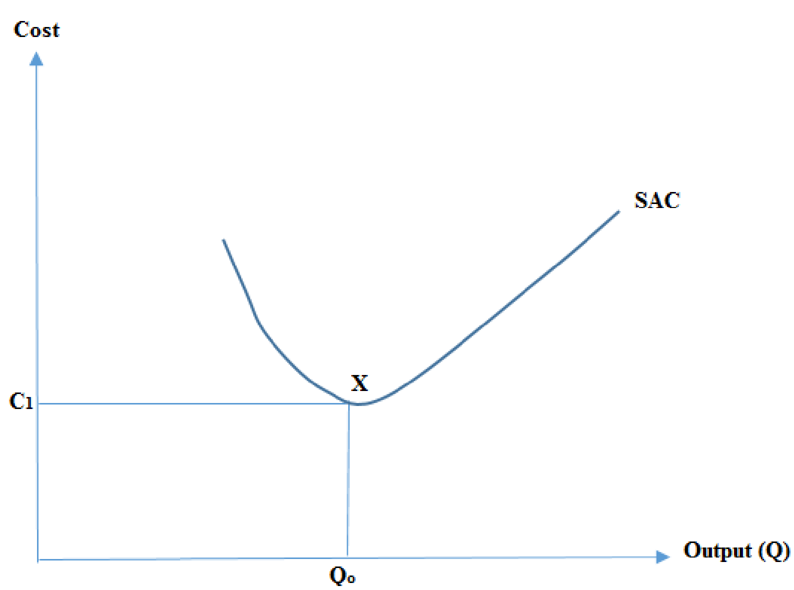
i.e. . AC = TC/Q Where,

Q = output

TC = Total cost

AC in the short is illustrated on the graph by short run average cost SAC.

GRAPH



The short run average cost is U –shaped be because of the law of diminishing returns short run cost first falls because of specialization and increased utilization of the fixed factors. At the point **x** have minimum costs (optimum point)optimum point reached when the firm produces high output OQ2 at lowest OC1 at that point there is effective utilization of fixed point.

- After point **x** the cost per cost unit output increase because of over utilization of fixed factor which results into (diminishing)

1. .AC = TC/Q therefore when output increases because of increasing returns AC falls, when output is maximum and have minimum AC (at optimum) when output is falling because of diminishing returns AC would be increasing.
2. When input is producing output less than optimum, OQo when it is working under excess capacity.

(AFC) Average fixed cost

Refers to the fixed costs incurred in producing such unit of output.

I.e. AFC = TFC/Q

Since fixed cost is constant it means that as output increase after decrease.

Average variable cost (AVC)

Refers to the variable costs incurred in producing each unit of output.

i.e. Average = TVC/Q

Where Q is total output

Marginal cost (MC)

This refers that addition cost incurred in producing an extra unit of output.

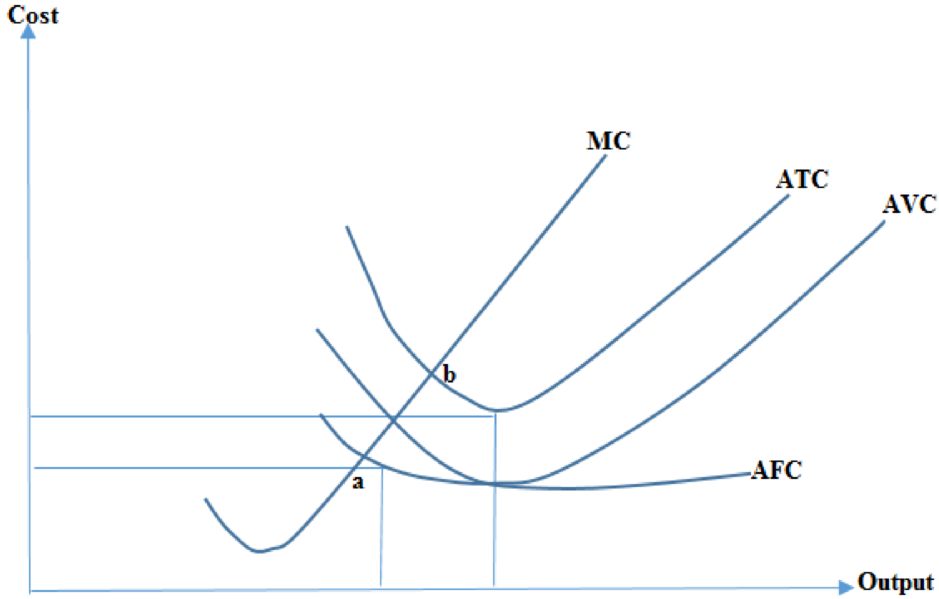
MC = âˆ†TC/âˆ†Q

âˆ†TC means change in total cost.

âˆ†Q means change in output.

The relationship between ATC, AVC, MC and AFC are illustrated by the curve below;-

GRAPH OF CURVE



The graph shows the variation of cost ATC, AVC, AFC and MC.

- The following should be noted

1. ATC curve, AVC curve and MC curve are U-shaped because of the law of diminishing returns.
2. As the level of output increases, the ATC curve comes close to the AVC because of consistent fall in AFC which is a component of ATC.
3. AVC curve is below the ATC curve because ATC = AVC + AFC the difference between the ATC and AVC is AFC.
4. MC lines below the ATC where AFC is falling and above the ATC where the ATC is rising.
5. MC lies below the AVC when AVC is falling and above when AVC is rising.
6. The MC meets the AVC and ATC at their lowest points.

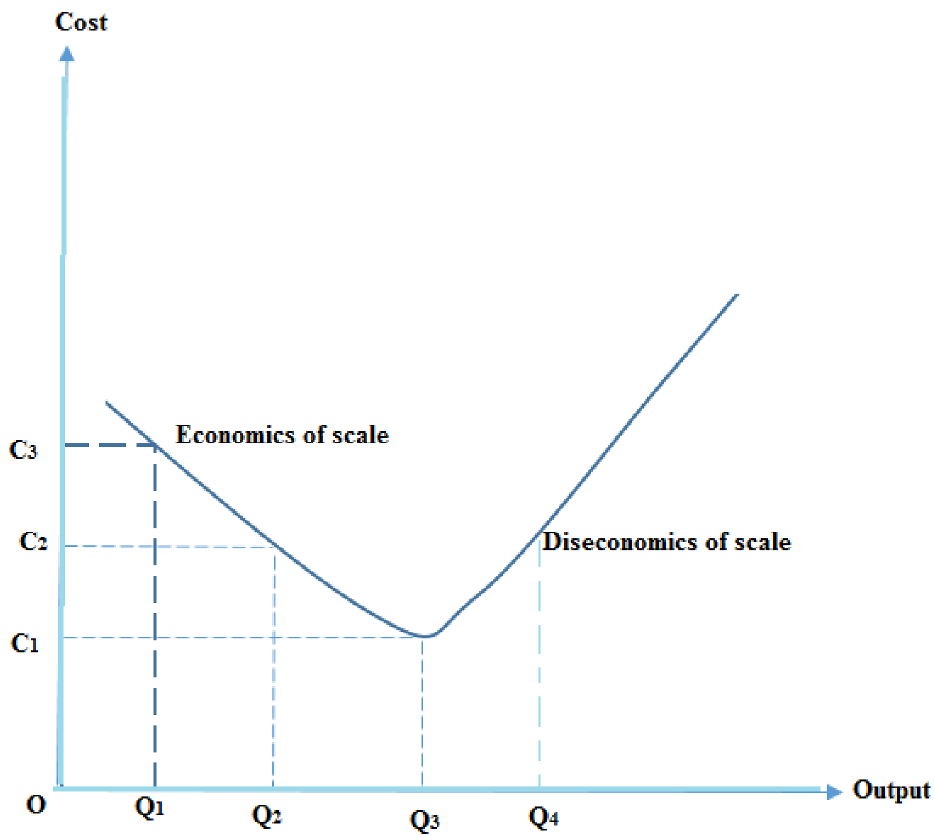
VARIABLE OF COSTS IN THE LONG RUN

There is no fixed cost in the long run. The time is too long such that the firm is able to vary all the factors of production and therefore all costs become variable.

To increase output, the firm expands in size. The firm expands developing in whether the firm is enjoying advantages of expansion (economies of scale) or disadvantages of expansion (dis economies of scale).

Long run – AC refers to the summation of short run average cost.

GRAPH FOR ILLUSTRATION



From the figure is the optimum size of the firm in long run therefore the long run Average cost curve (**LAC**) is U- shaped because of economies of scale while in the short run average cost curve (**SRAC**) is U – shaped because of law of diminishing returns.

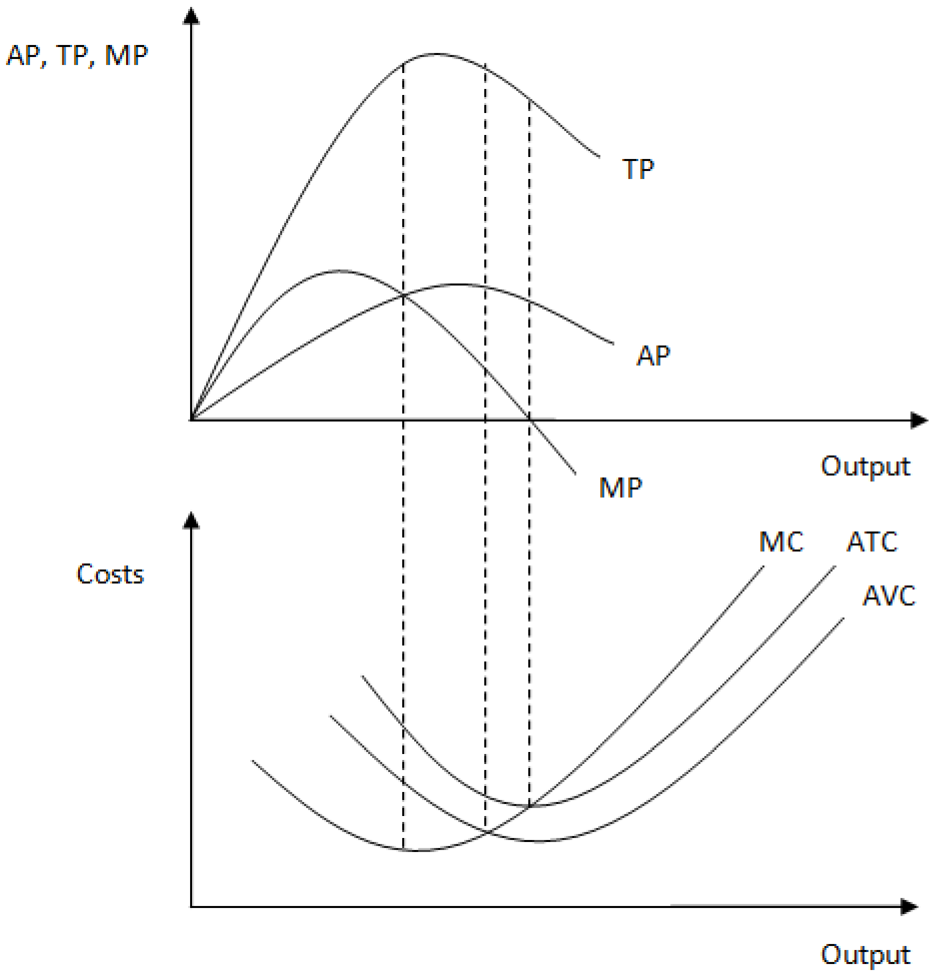
RELATIONSHIP BETWEEN MP, AP AND ATC, MC AND AVC CURVE

1. Average total cost and total product curve.
2. Average variable and average product curve.
3. Marginal cost and marginal product curves.

RELATIONSHIP BETWEEN MARGINAL PRODUCT CURVE AND MARGINAL COST CURVE

-When the marginal product is increasing, marginal cost is decreasing

-When marginal product curve is at maximum, marginal cost is at minimum



THE THEORY OF MONEY

Money refers to anything of value which is generally acceptable by the whole society to act as a medium exchange.

Money is accepted not for its own sale but because others will accept it in exchange for goods and services. Therefore demand for money is a derived demand.

It is a legal tender meaning that everyone in the country concerned must accept it in settlement of debts.

IMPORTANT TERMS

1. **Legal tender**.

Is money for specific country which must by law be accepted for the discharge of debts.

Refers to the total stock of money and includes foreign currencies which are not generally and acceptable for the discharge of debts.

2. **Token money.**

Refers to the coins whose metal value is less than face value instric value of money is the commodity value of materials used to make money.

Extric value of money – Is the value of money interms of its ability to purchase goods and services.

3. **Fiat money.**

Is issued in the directive of the government irrespective of the level of economic activity e.g. money printed to Jinana the car

Fiduciary issue – Is the money which is issued and not backed by gold.

4. **Quasi money/near money.**

Refers to risk free assets which are easily converted into cash e.g. bonds, foreign currencies.

Refers to ease with which an asset can be converted into cash. Liquidity assets are those which are easily converted into cash with no risk of cash loss e.g. cash is the most liquid asset.

Liquidity – Refers to the difficulty with which assets is converted to cash. Liquid assets are less profitable than illiquid assets e.g. long term bond/earn more interests than short term bond.

FEATURES OR CHARACTERISTICS OF GOOD MONEY5

1. It must be generally (acceptable) in the society i.e. all the people in the country must be confident that it will be accepted by others.

2. It must be easy to transport e.g. it must not be heavy in relation to its value.

3. It must be divisible to smaller domination to make possible smaller transaction e.g. Tanzania currency is divided into 50/=, 100/=, 1000/=, 5000/=, 20000/=, 50000/=, and 100,000.

4. It must be durable i.e. money must not be perishable so as to function as a store of value.

5. Must be relatively scarce as money must be relatively scarce in order to maintain its value otherwise would lose its value if it is plenty and people prefer to keep their wealth inform of property.

6. Homogeneity:-One piece of money i.e. money should be similar, for instance a ten shilling note should be similar to all other ten shilling notes used in a country.

TYPES AND EVOLUTION OF MONEY

Money is classified according to how it involved in history as follow.

i) Barter system. This was the earnest form of exchange where commodities were exchanged directly for other commodities.

ii) Use of commodities of high use value e.g. salt, tobacco, corn.etc

They were used to determine the value of other commodities. Such commodities were used because of their value and ability to society human wants. However they are perishable and even bulky.

iii) Use of durable commodities of iron, copper, gold,courier shells, silver heads e.t.c However not all commodities were scare hence they could not a good media of exchange.

iv) Use of rare materials i.e. gold and silver those were used because their scarcity and durability.

v) Paper money

In the beginning people used to deposit their gold with the gold smith, the custodians of gold who were living at that time. In turn the gold the gold smith could give them receipts which they were to use to get back their gold.Later people started to use receipts to settle debts and obligation because such receipts were as good as gold in the beginning paper money was as good and gold because it was fully backed by gold.

vi) Deposit money:

This is created by commercial bank in the process of accepting deposit and landing using cheque. (Credit creation).

ADVANTAGES OF BARTER ECONOMY OVER MONETARY ECONOMY.

1. It preserves foreign exchange i.e. it enables exchange to take place without working for exchange.
2. It widens the market of commodities.
3. It encourages trade among less developed countries which lack foreign currencies.
4. The effect of price fluctuation is avoided since bargaining is in terms of physical quantities.

DISADVANTAGE OF BARTER ECONOMY.

1. There is no generally acceptable means of settling dept. and obligations.

2. There is no measure of value of reflecting the relative quantities and quantities of commodity to be exchanged.
3. There no standard of differed payment for means to facilitate payments to debts and transactions to future time.
4. There was nothing to facilitate specialization to take place since there is no generally acceptable way of paying wages, rent and interest.
5. There is problem of transporting the bulky commodities to use in exchange.
6. Most commodities appear in plenty and therefore lose value easily.
7. Most of the commodities are not divisible to smaller denomination to make smaller transaction possible.
8. It is difficult to get commodities which are homogeneous to use as means of setting obligations.
9. Problems of double coincidence.

VALUE OF MONEY

The value of money means the purchasing power of money i.e. the amount of commodities a unit of money can purchase the value of money depends on the price level. If the price is higher, the value of money is lower and if the price is lower, the value of money is higher.

EFFECTS OF CHANGE IN THE VALUE OF MONEY:

1. **Effect when the value of money increases.**

a) The business activities will be stimulated due to increase in purchasing power.

b) There will be less risk to produce (loss) due to sureness of produces to market their products.

c) Profit margin rises due to increase in revenue as a result of increase in purchasing power in the economy.

d) Output also rises.

Produces will be stimulated to increase output due to increase input.

e) Cost of production becomes low hence production increase.

Effect when the value of money decreases.

1. Cost of production increases or rises hence reducing down production.
2. It becomes difficult to adjust wages.
3. Purchasing power of individuals will decrease due to increase in price of goods and services hence affects living standard of people.
4. Profit Margin will decrease due to increased cost of production.

DEMAND FOR MONEY

Refers to the willingness of people to hold money in cash rather than other assets like bonds, bills and other government securities.

The question why do people hold money? Can be explained by the following;

- The quantity theory of money.
- The Keynesian demand for money theory.

THE QUANTITY THEORY OF MONEY.

According to prof. Irving fisher money is like other commodity to the market.

-As the quantity supply increases the price increase i.e. the value of money will decrease and when the quantity supplied decreases the prices will decrease, hence the value of money increases.

NOTE:

According to fisher the value of money depends on quantity of money in circulation or level of transaction e.g. when the quantity of money is double the price will also be double but the value of it will fall a half.

The theory can be explained by the following equation;

MV=PT.

Where,

M= Stock of money.

V=the velocity of money in circulation.

P= General Price level.

T= Level of transaction.

MV= Amount of money spent on purchasing commodity.

PT=Value of goods and services sold in an economy.

ASSUMPTIONS OF THE THEORY:

Velocity of money should remain constant.

The proportion of increase/decrease in proportion is inverse proportional to the quantity supply of money.

1. Number of transaction should remain constant.
2. Absence of hoarding i.e. all the money in circulation should be used for transaction.
3. Quantity and velocity should be credit for transaction.
4. There no barter trade i.e. operating in monetary economy.

CRITICISM OF THE QUANTITY THEORY OF MONEY:

The quantity theory of money have been rejected or criticized on the following basis;

- The theory based on weak assumptions because all variables are assumed to be constant i.e. V & T in actual sense the velocity of money and number of transaction do not remain constant when the quantity of money changes.
- Price of different commodities do not change at the same time as the theory explains in price changes differently on condition of demand and supply.
- The theory is based on the supply side ignoring the demand side of money i.e. it is both demand and supply of money which determines price.
- It is just truism and not theory. The theory is inadequate because it does not consider the interest rate which is the basis of monetary theories.
- The theory ignores the influence of the government in the price level is through price ceiling and price floor.
- Fisher considers money as a medium of exchange and to ignore the direct exchange of goods for goods which exist in some part of different money.
- Increase in price can be brought about by scarcity (e.g. existence of monopoly market but not necessary due to increase in money supply.

KEYNESIAN THEORY OF DEMAND FOR MONEY

According to Lord John.M.Keynes those are main reasons as to why people hold money (demand).

1. Transaction motive.
2. Speculation motive.
3. Precautionary motive.

TRANSACTION MOTIVE.

Money is demanded for facilitating the day to day uses i.e. to buy everyday requirements such as food, clothes e.t.c

MT= K; Y; K > O
Where,
MT= Demand of money for transaction.
Y= Consumers income.
K= Constant of fixed nation.
Alternatives.
M^D T= F(Y).

The quantity of money demanded for transactional motive is direct proportional to the person's income.

-Also the longer the payment period the more money for transaction and vice verse.

b) **PRECAUTIONARY MOTIVES.**

Individuals hold extra money as a precaution against unseen events or circumstances e.g. sickness e.t.c this additional money held to meet unexpected events in the future is said to be held for precautionary motives depending on person's nominal income is related to income.

MT= Demand of money for transaction.
Y= Consumers income.
K= Constant of fixed nation.
Alternatives.
M^D T= F(Y).

C) **SPECULATIVE MOTIVES.**

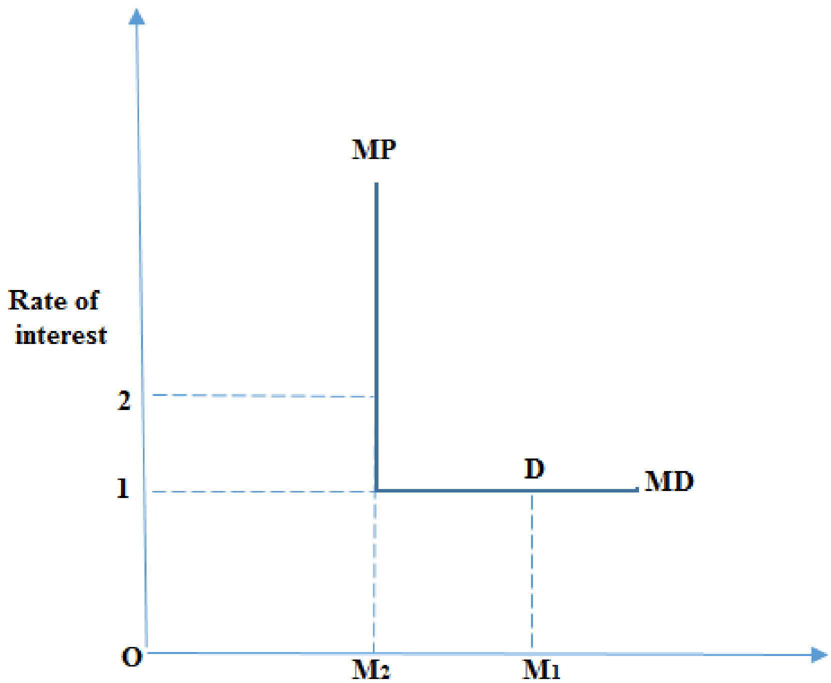
If money is held in excess amount required for transaction and precautionary motive then hold for the speculation purpose speculative demands on the future trend on the interest rate which will prepare to converts their asset into investment e.g. purchasing bond rather than money in cash when interest rate is low, investors prefer to convert assets into cash.

Therefore demand for money for speculative motive is inversely related to interest rate i.e.

M^D S = K (I): K > O
M^DS = Demand of money for speculative motive.
I = Interest rate

People hold money for earning income through speculation. This depends on the rate of interest.

Graph for illustration.



From the graph when the rate of interest is expected to fall from Or_2 to , speculators convert bonds to cash and therefore demand for money M_2 M_1 to avoid capital loss when the rate of interest is expected to increase from Or_1 to Or_2 speculators buy bonds and hence demand loss money (OM_2). This liquidity trap shows the point below which the interest rate would be too low to encourage speculation to invest in bond and as a result only money.

1. **FINANCE MOTIVE**

People hold money to finance on gaining investment in which capital has been sink such money held would constitute the variable costs of such investment.

NB: Determinants of demand for money on addition to Keynesian demand for money theory others are;-

GENERAL PRICE LEVEL

In high demand for money is high because of the low value of money of low demand for money low because of the high value of money.

Generally M^2D T, P&S = F (Y,I).
Where MD/T Demand for money
P = Precautionary motive.
S = Speculative motive.
T = Transactional motive.

Y = Consumers Income.
I = Interest rate.

MONEY SUPPLY.

Refers to the money in circulation plus money current savings and time deposit accounts.

$MV_2 = M_1$ + saving and time deposits.

= M_1 + SD +TD.

Where

M_1 = CC +DD

CC = Currency in circulation.

DD = Demand deposits.

This definition treats money as medium of exchange and therefore considers only money which in reality it is available to be used to facilitate exchange.

MONEY SUPPLY:

Refers to the volume of money in an economy. There are several definitions of money supply as follows;-

1. **Narrow definition of money supply**.

Money supply as money in hands of the public plus money on demand deposits (current account).

M1 = CC + DD

Where

CC = Currency of circulation

DD = Demand deposits.

This definition treats money as a medium of exchange and therefore considers only money which in reality it is available to be used to facilitate exchange.

2. **BROADER DEFINITION OF MONEY SUPPLY.**

Refers to the money circulation plus money current, savings and time deposited accounts.

$Mv_2 = M_1$ + saving and time deposits.

$= M1 + SD + TD$.

Where

$M_1 = CC + DD$

S = Saving

TD = Time deposits.

;- This takes money to be a store of value.

Others definition: includes the definitions of other like bonds and foreign currencies.

i.e. $M_3 = M_2 + M_1$ + near money (Quasi)

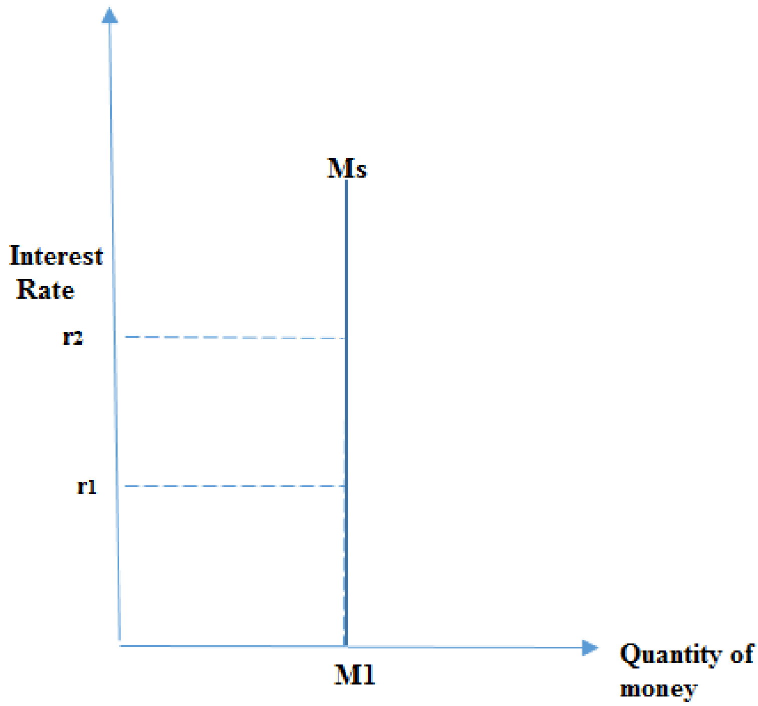
NB:

Near money (Quasi) refers to the assets that can easily be connected with cash.

TYPES OF MONEY SUPPLY.

Exogenous (discretionary) supply of money.

This is determined by the monitoring authority which may be central bank or ministry of finance. Exogenous supply of money is usually assumed fixed.



ii) Endogenous (Automatic) supply of money:

This depends on the level of economic activities e.g. output of interest e.t.c

DETERMINANTS OF MONEY SUPPLY.

1. **Printing more money by monitoring authority.**

When the government undertakes run short of money, more money can be printed to finance them. This is called financed accommodation.

- Demonetization is withdrawing all money in circulation reduces money supply.

2**. Government borrowing from the central Bank.**

This also implies printing of money since the central bank has no money to lend.

1. When the central bank buys the securities (e.g. bonds) from the public money supply increases but when the central bank sells securities to the public, money supply is reduced.
2. Balance of payments (BOP) surplus when export exceeds imports the surplus foreign exchange for local currency such money circulates in the economy and the vice versa during balance of payment deficit.

3. Foreign capital inflow e.g. tourist who exchange foreign exchanges in local currency spends during their stay in the country and the vice versa during capital out flow.
4. Special deposits

If increased or if imposed by the central bank reduces money supply.

5. Credit by commercial banks.

This act by commercial banks using the cheque facility expands to result into greater volume of credit than the amount originally lend out. The increase in money supply in the currency.

- This is the rate in which the central banks charge commercial banks from the loan given to them.
- The increase interest rate to the public. The increase in interest rate will discourage borrowing and encourage saving hence decrease in supply and vice versa when the bank into decrease.

6. Selective credit control i.e.

If few factors get credit money supply reduces while of credit is not restricted money supply increase.

INFLATION

Refers to the continuous or persistent increase in the general price level of all commodities in an economy.

It can be increased by either NCPI (National consumer price index) or GDP (deflector) e.g. GDP defoliator
P-1 = Pt – 1= 1998=120.7
P-2= Pt = 1999 = 131.0

Qn: Find the inflation rate:

Inflation rate is defined simply as the velocity of the increase in general price levels and it is give by.

P = Pt – (Pt – 1)/ Pt-1

Where

Pt = current price

Pt – 1= Base year price

P = Inflation rate.

TYPES OF INFLATION:

Types of inflation can be classified according to its causes and rate of spread or intensity.

Types of inflation according to its causes

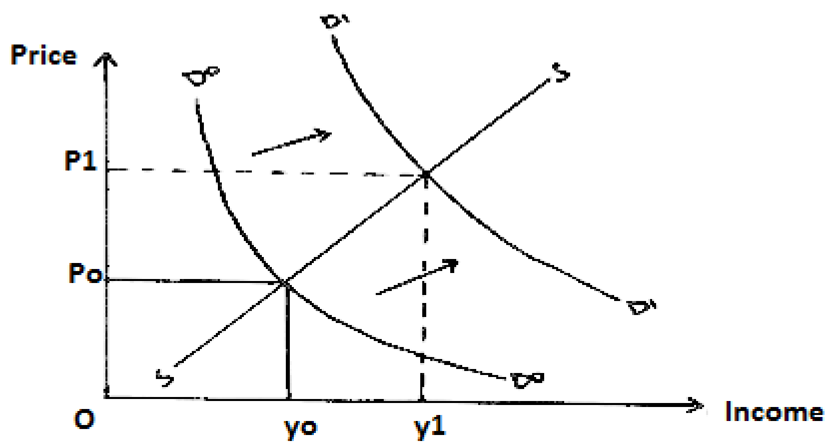
1. Demands pull inflation.
2. Costs push inflation.

Others types of inflation are.

i) Imported.

ii) Structure.

DEMAND PULL INFLATION



From the diagram,

Increase in aggregate demand from Do to DI leads to increase in price from Po to P_I which is the inflation point.

CAUSES OF DEMAND PULL INFLATION:

1. Rapid increase in population.

The higher the population, the higher demand of goods and services.

2. Decrease in government taxes.

Lead to increase in personal disposable income which increases the purchasing power of an individual.

3. Increase in wages or income of an individual.

Increase in people income leads to increase in purchasing power.

4. Increase in government expenditure.

This will lead to increase in supply of money increased people will increases the rate of purchasing power which is in aggregate demand.

1. Increase in capital inflow thorough exports leading to increase in money supply.
2. Printing more money by the government through expansion of monetary policies.
3. Increase in exports of essential goods which leads to increase in foreign exchange hence more supply of money which increase aggregate demand.
4. Decrease in imports of essential goods which lead to increase in aggregate demand for such goods.
5. Decrease in output as a result of restriction by monopolist cause artificial shortage in an economy which will cause increase in demand for those goods.

MEASURE TO CONTROL DEMAND PULL INFLATION

- Increase in taxation (direct) will reduce personal disposable income.
- Production in government expenditure this will reduce supply of money in the economy.
- Reduction in wages of workers.
- Increase in importation of essential goods so as to reduce the problem of scarcity.
- Use restrictive monetary policies i.e. Contraction monetary policies that reduce money supply in the economy.
- Discourage rapid population pressure so as to reduce the demand for goods and services.
- Encourages saving which will reduce aggregate goods demand.

COST PUSH INFLATION

Is the kind of inflation caused by increase in cost of production i.e. increase in wage, rent interest, also increased cost of equipments which can be used for production process.

From the graph increases in price of factors of production leads to the decrease in the supply of goods and services from O_{yo} to O_y.

CAUSES OF COST PUSH INFLATION.

- High cost of raw materials especially those which are imported.
- High advertising cost.
- High wages to workers.
- Trade units.

- Increase in transport cost due to increase in price of fuel in the world market.

CLASSIFICATION OF INFLATION ACCORDING TO THE DEGREE OF INTENSITY. (SPEED)

1. **Creeping or mild or gradual inflation.**

This refers to the slow increase in general price level. The increase in the general price level is less than 3%. It encourages production and it does not distort relative prices or income severely.

2. **Walking or trotting or moderate inflation**.

This is where the increase in the general price level is a single digit or less than 10% per annual. It is a warning to the government to put measures to control it before it goes out of hand.

3. **Running inflation.**

This is when prices increases at the rate of 10 – 20 percent per year/annual. It requires strong measures to control it.

4. **Hyper inflation or run away or Galloping inflation.**

This is the rapid rise in the general price level where inflation ranges from 20% even more than 100% per annual.

Inflation becomes uncountable and prices rises many times every day. Money losses value and people prefer to hold real goods or assets than money.

OTHER FORMS OF INFLATION:

Wages – wages inflation.

This occurs due to inter firm or intersect or common wages among workers. A rise in wages in one sector or firm causes revision of wages in similar occupation in the economy. As enter preview increase wages total cost and prices also increases.

STRUCTURAL OR DEMAND SHIFT INFLATION:

- This is occurring as a result of a combined element of cost push and demand pull inflation.

It occurs when there is a structure change in element of situation e.g.

- In a situation where some industries are expanding while others are declining in the case of expanding industries higher wages has to be paid in order to attract labour increasing in wage cause inflation of a result of increase in cost of production.

- Increase in production may result to the increase in demand for goods and services.

CAUSES OF STRUCTURAL INFLATION:

- Temporary break down of economic sectors like agricultural sector and industry sectors.
- Shortage of productive inputs i.e. if factors of production are in shortage. There will be low production in the economy hence aggregate demand being greater than aggregate supply.
- Political instabilities. This will discourage production.
- Speculation by business. This cause artificial shortage by holding their goods expecting that they will get more money in the future.
- Shortage of foreign exchange to increase importation.
- Poor transport system to reach goods in all parts of the country.

MEASURE TO CONTROL STRUCTURAL INFLATION

- Improvement of transport system so as to enable goods and services to reach all parts of the country.
- Modernization of agriculture as to improve agricultural activities.
- Provision of productive input i.e. factors of production should be available in cheap price.
- Creation of goods in a conducive atmosphere which promotes production.
- Price control measures.i.e there should be price commission which will be responsible in setting minimum and maximum prices (price ceiling and price floor).

IMPORTED INFLATION

Is a type of inflation which is the result of imported goods and services from the country which is affect by inflation.

CAUSES OF IMPORTED INFLATION:

- Importation of goods of high prices from countries experiences.
- Rising prices in international market.
- Import shortage.
- Inelastic demand for imports.
- Protection against imports i.e. through imports duties.
- Expansionary / monetary policies which lead to high import demand.

EFFECTS OF INFLATION

1. **Effects on production.**

   Production takes place in the two periods is short run plus long run period.

- Effect of inflation in the short run.

In the short run increase in the price will encourage production because producer will sell their product at higher price.

At this period.

a. Wages or salaries cost adjust slowly.

b. Fixed charges such as result electricity, water supply and other charges adjust slowly.

c. Contacts and supply of raw materials covers long period until further orders are placed. The producer will use profit earned to increase production and possibly employment to stimulate demand.

2. Effect of inflation in the long run.

Inflation will discourage production as the money value falls hence all the cost of production will rise hence causing negative effects on production.

3. Effects of inflation in the long run.

Producers or profit earners.

4. These gain most during inflation as noted profit margin increase considerably during inflation but in short run only.

Wages and salary earners.

These also looses during inflation although not as much as fixed earners. Their loses will eventually be reduced due to wages and salary adjustment.

During inflation the value of savings falls i.e. rate fall this discourages saving and encourage wings.

Lenders

During inflation lenders tends to lose due to the fact that they are paid back their money when its value is low.

Social-political effects

Inflation has also effects on social and political affair to the economy such as;
• Crimes
• Unemployment.
• Political instability

EFFECTS OF INFLATION (GENERALLY)

Negative effects of inflation

1. Agriculturalists lose because prices of agricultural commodities tend to lay behind inflation. Their savings welfare and productivity falls.
2. Workers suffer when there is inflation because use wages kind to buy behind inflation.
3. The standard of living of fixed income consumers (like pension earners those who depends on past saving) falls.
4. It discourages people from saving in financial institutional because of fear that their money would lose value. Financial institution is forced to increase the rate of interest and this increases cost of borrowing and leads to further inflation.
5. It reduces the purchasing power of the majority since it redistributes income from the majority peasants and workers to the majority (business people).
6. Creditors lose because they are paid back in an inflation currency. This discourages lending by individuals and financial institution.
7. It leads to political unrest and demand for high salaries by workers. Therefore it increases people fail to meet the high cost of living e.t.c.
8. Inflation leads to balance of payment (BOP) problem of discouraging exports and encouraging imports. Exports reduce because dislike buying from a country where price are high. Import increase because outsides like to sell in a country where prices are higher.
9. Inflation may be used against the production of exports whose prices are determined on the world market. Prices remain fixed where as costs of production increase in the domestic currency. People shift to production for domestic markets to fetch higher price.
10. Where there is hyper inflation there is need to revise plan for tax structure and contacts to match with the new price structures. This is time consuming and can lead to fail are to archive objective of plans and programs.
11. Inflation to rural-urban migration since it becomes less profit to grow crops in rural area.

People shift to town to start businesses. This discourages agriculture in rural areas and lead to urban unemployment and development of slams in town.

1. It undermines the external value of the currency which calls for devaluation of the currency. This makes importation of raw materials difficult.
2. It leads to black market e.g. to create artificial shortages.

POSITIVE EFFECTS OF INFLATION:

Hyper inflation is ineducable in the economy. However mild inflation may be health to the economy in the following ways.

1. It increases the profit level of business (commercial producers) since cost of production rise lower than price of commodities. This encourages investments.
2. It makes workers and peasants to work harder to maintain their standard of living after the increase in prices which may provide incentives for people to encourage in economic activities.

3. It reduces the level of unemployment, since there would be a lot of money to spend and stimulate production and to invest and create more jobs.
4. It encourages business people to get loans since they would expect money to have lost value of the time of paying back.
5. It encourages people to produce goods to sell in the domestic market where price is high.
6. By encouraging urbanization it leads to an increase in demand for food which encourages agriculture.

POLICY FOR INFLATION

Policies for inflation are mainly macro economics policies which aim at stability. Efficiency and fair distribution of wealth. A policy of inflation depends on the causes of inflation. Policy instrument should reduce aggregate demand and increase supply.

1. **A light (restrictive /ideas)** monetary policy. This involve the use of various tools of monetary policy to reduce money supply and square consumption.eg increase in bank rates, selling securities to the public, increasing reverse rates etc. Produce money supply and aggregate demand at the extreme the government can also demonetize the currency by declaring the old one useless and new one.
2. **Fiscal policy**-This includes the reduction of government expenditure and increase of taxes to reduce aggregate demand. A supply budget where the government collects more revenue than its expenditure is a strong tool. The government can also do internal borrowing to reduce money supply and also postpone repayment of internal debts to the time when inflation is controlled.
3. **Reorganization of distribution channel of goods**–e.g. restoring of scarce commodities and rationalization of major distribution channel.

According to the kinked demand curve it does not pay for the oligopoly to the rise or lower price.

Depreciation and Appreciation of a Currency

- Depreciation of a currency.

  Is when there is a decrease in the value of the domestic currency in relation to the foreign currency purely caused by the market forces of demand and supply of the currency.

  E.g. when it was1ksh. = 10Tshs.

  And then it was 1ksh. = 20Tshs.

  From the above example the Tanzania Tshs has depreciated.

  Effects of depreciation of a currency

1. Increase in exports and they become cheaper.

Import decreases as they become more expensive

2. As exports increase and import decrease the deficit in the balance of payment reduces.
3. Depreciation stimulates more production and hence promotion of the domestic industries plus creating more employment opportunities.

- **Appreciation of the currency**

This is when there is increase in the value of domestic currency in relation to the foreign currency purely caused by the market forces of demand and supply of the currency.

E.g.: when 1kshs was 10Tshs and then later on it was

1kshs was 6Tshs, so the Tanzania Tshs has appreciated

EFFECTS OF APPRECIATION OF A CURRENCY

1. Exports reduce as they become more expensive.
2. Import increase as they become cheaper.
3. As import increases and export reduces the deficit in the balance of payment increase results into the balance of payment problem.
4. Production contract and results into increase in unemployment

Value of Money

Value of Money is the purchasing power of money which is reflected through the amount of goods and services a cent of a currency can purchase.

Value of money can increase or decrease. For example during inflation, value of money decreases and during deflation the value of money increases.

Measuring changes in value of money

Changes in the value of money are measured through price index.

Price index is a figure which measure the relative changes in the price of various commodities from one period to another period. That is to say from the base to the current year.

NOTE: Price index can as well be called the **cost of living index** as it gives a picture on changes in the cost of living in a certain area from one period to another. Price indices can be producer's price index, whole seller's price index, retailer's price index, etc.

TABLE SHOWS MEASURING CHANGES IN VALUE OF MONEY

Commodity	Price in 1970(Shs)	Price in 1980 (Shs)	Price relative

A	20	25	125
B	5	10	200
C	15	30	200
D	40	50	125
E	200	450	225
$\Sigma_{n=5}$			Σ PR=875

Formula:

$$\text{Price Relative \% (P)} = \frac{P_1}{P_0} \text{ X } 100$$

$$\text{(SPI) Simple price index} = \frac{\Sigma PR}{\Sigma n}$$

ΣPR=Price relative for each commodity
Σn=Total number of commodity
P1=Price in current year
P0=Price in the base year

Solution

Price Relative of Commodity (PR) A: $= \frac{25}{20} \times 100 = 125$

B: $= \frac{10}{5} \times 100 = 200$

C: $= \frac{30}{15} \times 100 = 125$

D: $= \frac{50}{40} \text{ X } 100 = 125$

E: $= \frac{450}{200} \text{ X } 100 = 225$

$$\text{(SPI) Simple price index} = \frac{\Sigma PR}{\Sigma n}$$

(SPI) Simple price index $= \frac{\Sigma PR}{\Sigma n}$

$= \frac{(125+200+125+125+225)\%}{5}$

$= \frac{875\%}{5}$

$= 175\%$

This means the price level rose by 175%

- **Weighted Price Index**

  This is the price index which considers the weight assigned to various commodities and under this must important commodities are assigned high weights than those which are less important.

Commodity	weight	P x in1970	P x 1980	PR	W x PR
A	5	20	25	125	625
B	4	5	10	200	800
C	2	15	30	200	400
D	3	40	50	125	375
E	10	200	450	225	2250
	Æ© = 24				Æ© = 4450

Formula :WPI=Æ©WPR/Æ©W

Weight Price Index = 4450/24 = 185.4
185.4%-100%=85.4%
So the general price level increased by 85.4%

Lapser's Price Index(LPI)

This is a base year weight price index therefore it uses the base year value as its weights.

This price index is a better way to get a picture on changes in the value of money, standard of living etc as it makes a comparison between the base and the current year.

LPI = Æ©PnQo/Æ©PoQo x 100
Where Æ© = summation
Po = Price in the base year

Pn = Price in the current year
Qo = Quantity in the base year

	1998		**2000**	
Items	**Qty (Kgs)**	**P x (Shs)**	**Qty (Kgs)**	**P x (Shs)**
Beans	2	3.2	2	40
Sugar	5	2.0	10	1.5
Meat	2	5.0	1	25.0
Rice	3	1.0	8	5.0
Maize flower	2	1.0	3	7.0

Interpretation

- Price increased by 201%
- Cost of living increased by 201%
- Standard of living declined by 201%
- Saving capacity declined by 201%

Pascal's Price Index

This is a current year weight price index which is calculated by

PPI = Æ©PnQn /Æ©PnQox 100

Where

Æ© = Summation

Pn = Price in the Current year

Po = Price in the base year

Qn = Quantity in the current year

Using the precious table

PPI = Æ©PnQn/Æ©PnQox 100

Æ©PnQn = (4.0 x 2) + (1.5 x 10) + (25.0 x 1)+ (5.0 x 8) + (7.0 x 3)

= 8 + 15 + 25 + 40 + 21

= 109

Æ©PoQn = (3.2 x 2) + (2.0 x 10) + (5 x 0.1) + (1.0 x 8) + (1.0 x 3)

= 6.4 + 20 + 5 + 8 + 3

=42.4

PPI = 109/42.4 x 100%

PPI = 257.0754-100%

PPI ≈ 157%

Interpretation

- Price increased by 157%
- Cost of living increased by 157%
- Standard of living decline by 157%
- Saving capacity declined by 157%

Importance of Price Index

1. It is important in measuring changes in the general price level between the base and the current year therefore it is from the price index that it can be known whether the prices increase, reduce or remains the same.
2. Price indices are also important in knowing changes in the value of money over time. Therefore it can be known whether the value of money has increased or reduced.
3. Price indices are also important in measuring the cost of living between the base and the current year. Therefore it is from price index that it can be known whether the cost of living has increased or decreased.
4. Price index is also important in measuring in the standard of living between the base and the current year. Therefore it can be known whether the standard of living has increased or decreased.
5. Price indices are also important to the government and to the employees in the wage policy as it gives a picture on the cost of living and standard of living and hence creating a basic of wage revision.
6. Price indices are also important in measuring terms of trade, position of the country by use of the price index for export and price index for imports. Therefore price indices are important in showing changes in the terms of trade position of the country.
7. Price indices are also important in deflating National income from nominal to real through the use of the GDP deflation.
8. Price indices are also important in comparing the cost of living and standard of living between countries.

Problems experienced in measuring and use of price index

1. Choice of the base year

   It is difficult to get a base year in which prices are relatively stable, this is due to the fact that they are normally ups and down in the prices.

2. Difficulty in selection of a common represent basket of commodity from the wide range of commodities.
3. The data problem.

   It is difficult and unreliable data on prices and quantities as many consumers do not keep a record of their expenditures.

4. There are several ways/ methods that can be used to calculate price index but which give different answers this creates a problem in the interpretation.
5. Change in the prices may be as a result of improvement in quality which may be interpreted as inflation but which is not.
6. Index numbers have limited use for a long period of time due to the fact that taste and preferences change.

Steps taken in compiling price index.

1. Choice of an area where the data is to be collected
2. Choice of a common representative basket of commodities.
3. Collection of data on prices and quantities
4. Tabulation of the data
5. Choice of the appropriate formula and computation
6. Interpretation

TRADE CYCLE

Trade cycles can well be called Business cycles.

It means the rise and fall in the level of economic activities in an economy over time.

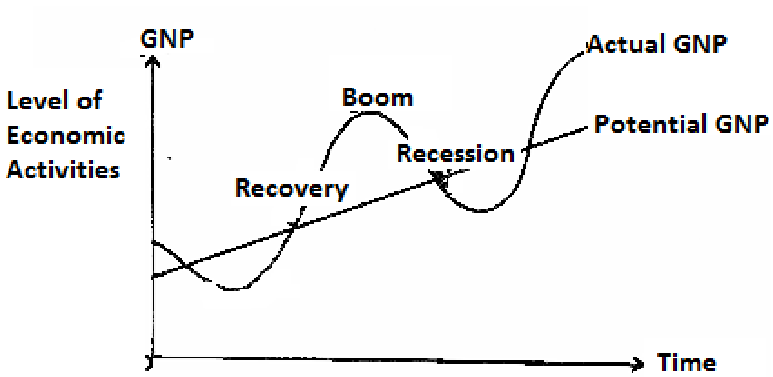
Trade cycle means ups and downs (fluctuations) in the level of economic activities in an economy.

A trade cycle simply means the whole course of trade or business activity which passes through all phases of prosperity and adversity

The level of economic activities in any economy does not remain constant but do change as factors upon which they are based also change.

Features of Trade cycles

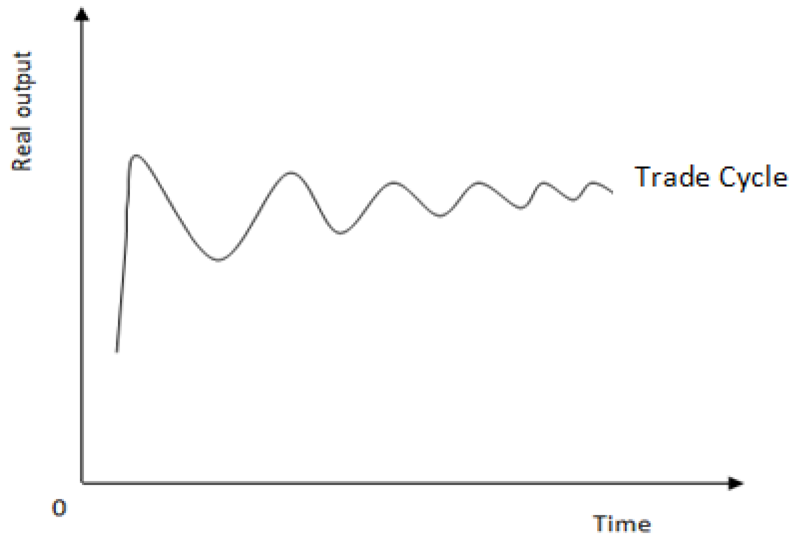
1. Trade cycles are wave like structure i.e. Their occurrence is like the shape of waves.
2. Expansion and contraction in trade cycles is cumulative in effects.
3. Trade cycles differ in timing and level of fluctuations.
4. Trade cycles have common patterns of phases which are sequential in nature.
5. A downward movement of trade cycle is more sudden and violet than change from downwards to upwards
6. Trade cycles occur in aggregate variables such as output, income, prices.etc.



TYPES OF TRADE CYCLE

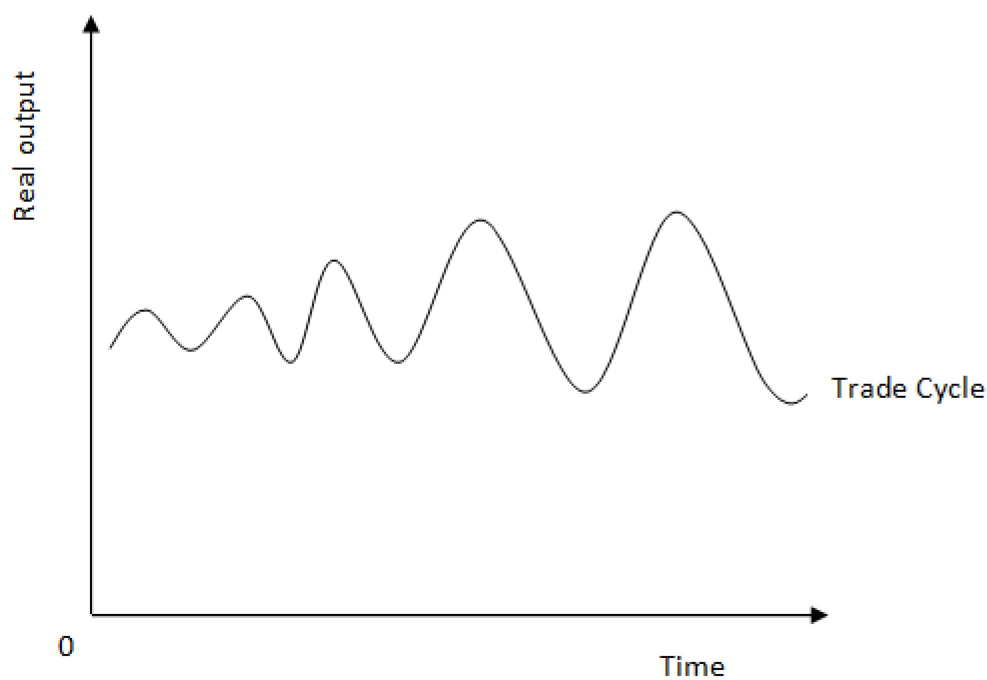
A damped Cycle

The fluctuation become smaller and smaller over time.



An explosive cycle

The fluctuations become larger and larger overtime



PHASES OF TRADE CYCLES

Trade cycles has four (4) phases which are arranged in order as below;-

1.Depression (trough/ slump)

2.Recovery (revival/ expansion)

3.Boom (peak/prosperity)

4.Recession (downturn/ contraction)

Characteristics of phases of trade cycles

This is a period when economic activities are at the most lowest level. Therefore it is the period where there is maximum decline in the level of economic activities.

Characteristics of Depression

7.

- Lowest level of investments
- Highest level of unemployment
- Lowest level of income
- Lowest level of consumption
- Price are very low
- People lose confidence in their government
- Lowest standard of living
- Banks and businesses are bankrupt.etc

This is a period when the economy starts to improve from a depression.

Characteristics of Recovery

- Investment starts to increase
- Unemployment starts to reduce
- Standard of living starts to improve
- Incomes and prices start to increase
- Banks starts providing credit and people start saving
- Consumption starts to increase
- People start to gain confidence in their economy

Boom

This is a period the economy is at most highest level and therefore economic activities are at the most desirable level.

Characteristics of Boom

- Highest level of investment
- Lowest level of unemployment
- Highest standard of living
- Social Economic and political stability
- High incomes
- High effective demand

Recession

This is a phase where there is a decline in the level of economic activities.

Characteristics of a recession

- Decline in investment
- Increase in unemployment
- Decrease in incomes
- Decline in effective demand
- Decrease in the standard of living
- Tax revenue falls.etc

Causes of Trade cycles

1. **Changes in climatic conditions**

   When climate is favorable, agricultural activities and other related ones such as ago based industries are stimulated which results into expansion in output,employment opportunities,incomes.etc and hence an expansion in economic activities. However with unfavorable climate such activities contract and hence decline in employment, income, output etc

2. **Change in the age of capital**

   When machines are new they tend to be more efficient and hence more output, income, employment opportunities and hence expansion in the levels of economic activities but it is time which gives on machine become older through depreciation, which reduces efficiency and hence fall in output, incomes, employment opportunities and finally a contraction in economic activities.

3. **Technological innovation**

   When a new technology is discovered, it will result in to better methods of production and hence output, incomes, employment opportunities.etc and hence expansion in the level of economic activities but when the innovations do not take place regularly and hence fluctuation in the level of economic activities.

4. **Changes in government policy.**

   The government policy is as well responsible for fluctuations in the level of economic activities. If the government opts for an expansionary fiscal policy and monetary policies such as decrease in taxes increase in government expenditure.etc, it will result into expansion of economic activities. However if the government opts for contraction momentary policy such as increase in taxes, decrease in government expenditures, it will result into contraction in economic activities.

5. **Changes in marginal efficiency of capital**

   The level of investment is an important factor as regard to the level of economic activities but however this depends primary on marginal efficiency of capital. When marginal efficiency of capital increase investment expands output increases, employment and incomes also increases and hence expansion. On the other hand when MAPC decline, it will result into decline on investments, output, employment etc and hence a decline in the level of economic activities.

6. **Changes in political climate**

   When there is political stability, investment expands and hence increase in output, employment opportunities, incomes and hence expansion in the level of economic activities. On the other hand with political instability the economic activities decline.

7. **Unpredictable changes in business investment depending on business optimism and pessimism (Psychological factor)**when entrepreneurs are optimistic they will have confidence and hope for better business and profit then they will motivate more increased investment and hence expansion in the level economic activities.

Theory of Trade cycles

1. **Climatic theory (harvest Theory) / Sunspot theory**

   According to the theory trade cycles is said to occur due to changes in climatic conditions .When climate condition is favorable, it leads to economic expansion conversely,unfavorable climate causes a decline in outputs in agriculture and in ago based industries and therefore leading to economic decline.

   Jevons sunspot theory, According to Stanley Jevons, spots appear on the face of the sun at regular intervals. These spots affect the emission of heat from the sun, which in turn condition the degree of rainfall. The rain affects agriculture which it affects trade and industry.

2. **Monetary theory**

According to this theory trade occurs due to changes in money supply and money demand.

Change in money supply.

- Increase in money supply: When money supply increases through increase in provision for credits, investment are encouraged and thus employment, incomes, effective demand increases as well as the standard of living. This is a period of boom or economic recovery.
- Decrease in money supply: When money supply decreases it discourages investment as a result employment, income and effective demand fall, hence an economic recession occurs

Changes in money demand

- Increase in money demand: An increase in money demand for transaction motive situation insertion and production thus cause an economic expansion.
- Decrease in demand: A decrease in money demand for transaction motive discourages effective demand and production; therefore it results in a recession or depression.

3. Over –investment theory

According to this theory, trade cycle occur due to over investment, over investment occur due to the following reason;-

-Fall in the rate of interest; When rate of interest is low investors are encouraged to borrow money for investment hence more investments are created leading to economic growth.

-Technological innovations; Invention of new technology causes an increase in production and economic expansion.

-Increase in effective demand: When effective demand increase production, therefore the economy undergoes economic growth.

4. **Psychological Theory**

Attempts are made by some economists to explain trade cycles interms of psychology. There are moods of optimism alternating with moods of pessimism. At some stage people just think trade is good and that it is going to remain good. Business activity is intensified and become flourish.Then all of a sudden, people start thinking that the period of prosperity has lasted long enough and adversity is round the corner. Thus although no valid reason for depression to come about, but it is brought about b the people themselves. It is all psychological.

The psychological theory lacks any sound basis. There is conjectural element in it. There is no doubt that, individual fluctuations are affected by the waves of optimism and pessimism and are intensified by them. But they do not explain the cause of the trade cycles or their periodic aspect.

5. **Under-consumption theory.**

According to under consumption theory, there is too much saving during a boom and further additions to saving reduce the level of consumption. A reduction in the level of consumption in the case of increasing productive capacity, must sooner or later lead to the collapse of the boom.

The under consumption or over saving theory contains an element of truth. But it cannot be the adequate explanation.Eg;if the under consumption theory were exclusively relied on, we expect the consumption goods industries to fluctuate more than investment goods industries. But exactly reverse is the case in real life during a trade cycle.

6. **Keynes Theory.**

According to Keynes, trade cycle is caused by changes in the rate of investment, the rate of investment is caused by the marginal efficiency of investments, ie profitability of investments, if the rate of profit declines, investors are discouraged to increase investments, the economy falls into a recession and the rate of profit increases. Investors are encouraged to increase investments and therefore the economy will experience recovery.

7. **Political Theory**

According to this theory, fluctuations in economic activities are caused by;

- Actions of politicians who apply expansionary monetary and fiscal policy for their political interest. I.e. to gain popularity this policy led to economic prosperity in the short run, but after winning elections politicians apply contraction monetary and fiscal policies which lead to economic contraction.

- Political stability and instability; When there is political stability, investors are encouraged to increase investments causing economic growth. In contrast when there is political instability investors are discouraged to invest and thus an economy falls into recession.

8. **Modern Theory**

According to this theory trade cycle occur due to multiplier and accelerator processes. An increase in investments leads to an increase in income which stimulates further increase in investments through the accelerator process and increase in investments stimulates further

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increase in income. Therefore economic recovery or a boom is caused by the effectiveness of the multiplier and accelerator processes while economic recession is caused by ineffectiveness of the multiplier and accelerator processes.

MEASURES TO CONTROL BUSINESS CYCLES

1. **Expansionary monetary policy**

   This involves the central bank through commercial banks increasing money in circulation in order to deal with a depression and recession. Under this the central bank will reduce the bank rates, reduce legal reserve requirements and so on, which will encourage banks to lend more to customers and businessmen. This will result into more investments, increase in aggregate demand which will finally result into expansion of economic activities.

2. **Expansionary fiscal policy.**

   Under this the government should opt for the following in order to deal with a depression and recession.

   - Increase in government expenditure especially in productive areas such as construction of roads which will result into increase in money supply and stimulation of business activities.

   -The government should as well lower direct and indirect taxes which will as well stimulate aggregate demand of goods and services, hence stimulation of economic activities.

3. The government can as well as employ direct controls in order to ensure proper allocation of resources in order to bring about price stability and economic stability, such controls will take different forms such as;-

- Exchange rate policy: Under this the government evaluate its currency in order to encourage exports which helps to boost up domestic production.
- Price and wage control: Under this the government fixes minimum prices in order to encourage production. It can as well increase wages in order to increase aggregate demand.
- Monopoly control: Under this the government can monitor the operation of monopoly firms so that they do not limit output which helps to stimulate production.

POPULATION

Population refers to a group of people living in a particular geographical area at a specific period of time.

Population size refers to the total number of people living in a certain geographical area at a specific period of time.

As in 2002 population census, Tanzania has a population size of 36 million people.

Population growth refers to increase in the number of people living in a certain geographical area at a particular period of time.

It is divide into;-

a) **National population growth** – This is on the basis of birth rate and death rate and therefore it occurs when the birth rate exceeds the death rate.

b) **Artificial population growth** – This is brought about by emigration & immigration. This exists when immigration exceeds emigration.

POPULATION CHANGE.

It means increase of decrease in the number of people living in a certain geographical area at a specific period of time.

FACTORS WHICH INFLUENCE POPULATION CHANGE.

1. **Change in birth rate**

   When the birth rate increase, population size also increase and when the birth rate decrease population size also decrease.

2. **Change in death rate**

   When the death rate increases, population will also decrease and vice verse.

3. **Change in immigration**

   When the number of the people entering the country increases, population will increase but when the number of people entering the country decreases, population will decrease.

4. **Change in emigration.**

   When the number of people leaving the country increases, population will decrease but when the number of the people leaving the country decreases, population will increase.

Birth rate and Death rates

Birth rate refers to the number of the live birth per thousand people.

$$CBR = \frac{\text{No of active birth}}{\text{Total population}} \times 1000$$

Example;

Total population of T.Z -36 million people

No of live birth – 1.2 million people

$$BR = \frac{1.2}{36} \times 100$$

$$\frac{1200000}{36000000} \times 100 = 3.33$$

Therefore for every 1000 people,3.3 of them are new alive birth.

Reasons for High birth rate in law developed countries.

1. **Cultural factor**: In many low developed countries a big number of children is looked at as a source of wealth, prestige and increase during old age. In some cultures it is again a sign of strength.
2. **Early marriage**: in many low developed countries there is many instances of early marriages, where by girls and boys marry as early as 13 years which create a high possibility of giving birth.
3. **Polygamous tendency**: Many men have a tendency of marrying more than one wife which also contributes towards high birth rate.
4. **Gender preference**: in many low developed countries, couples have a tendency of targeting a certain gender and in the process they tend to have many kids.
5. **Poverty:** Children are looked as a source of income through bride price.

   Early school drop outs due look of school fees, families cannot afford family planning facilities such as pills.

6. **Ignorance:** Many people in low developed countries are ignorant about the danger of high birth rate and also different precautions to be taken against unwanted pregnancies.
7. Idleness and lack of recreation facilities also contributes towards high birth rates since the couples are together most of the time.

Measures that have been taken by the Tanzanian government to control Birth rate.

1. Family Planning: The government has introduced family planning programs that are offered by many health centers all over the country at a very less fee.
2. Mass education: The government is also trying its level best to educate the masses to educate the danger of high population & high birth rate through political gathering, workshop, seminars etc under the concerned ministries.
3. The education policy: More schools have been constructed.

   School fees have been subsidized

   Sex education has been introduced.

4. The government also trying its level best to develop social and economic infrastructures in rural areas in order to reduce the idleness among people in rural areas.
5. The government has also used the law in order to reduce the birth rate as below;-

   The government set up sentences on rape on school pregnancies and it has also discouraged early marriage.

DEATH RATE.

This refers to a number of deaths per thousand people per annum.

$$DR = \frac{\text{Number of death}}{\text{Population size}} \times 100$$

Example.

Total population = 30 millions

No of death = 3 millions

Calculate the death rate

$$DR = \frac{3}{30} \times 1000$$

$$DR = \frac{1}{10} \times 1000$$

$$= 100 \text{ people}$$

Therefore for every 100 people, 100 die

Reasons for high death rate in LDC's

1. Poor or enough devices in number of ways
2. Lack of enough food supplies which has created a high level of famine and many have died.
3. Political Instability: In many LDC's are experiencing political instabilities through wars, tribal conflicts, religious conflicts, which has result in many killings

4. Disease: In many LDC’s there is a lot of chronic diseases such as AIDS, TB, and Malaria etc which have claimed many.
5. Lack of enough medical staff
6. Lack of enough health center’s
7. Lack of enough hospital facilities

8. Poverty:- Poor nutrition, buy medicine
9. Poor sanitation and lack of clean water
10. Witch craft.

Population Density and Distribution.

Population density refers to the number of people per square km.

Example

Total population =4 millions
Area in sq km = 200,000
Calculate population density

$$PD = \frac{4000000}{200000}$$

PD = 20

Effect of high Population Density

Negative effects

1. High rate of crimes.
2. Easy spread of diseases.
3. Low standard of living because of lack of enough goods & services.
4. Unemployment due to high supply of labor.
5. More pressure on social services such as schools, hospital etc
6. High rent due to shortage of houses.
7. Sanitation problems
8. More pressure on natural resources which result into environmental degradation.

Positive Effects

1. High market which will stimulate economic activities.
2. More labor supply.

3. Production will tend to be more competitive.
4. High government concern in areas with high population density.

Population Structure

This refers to the components of a certain population in a number of areas such as age, sex, occupation education etc.

Components of a Population Structure.

1. **Age Structure**: This is the distribution of population according to age and here population is divided into the children, adult and the old. The children and the old are regarded as the dependents (economically inactive) where as the adult are regarded as economically active.

This refers to the ratio between the dependants and the working age popul

$$DR = \frac{\text{No of dependants}}{\text{No of working age population}}$$

Given.

Age group	No of people
0 – 16	5,766,259
17 – 59	3,667,882
60<	984,501

a) Calculate the depending ratio

$$DR = \frac{\text{No of dependants}}{\text{No. of working age of population}}$$

$$DR = \frac{5766\ 259 + 984501}{3667882}$$

$$DR = \frac{6750760}{3667882}$$

DR = 1.835

DR = 1.8

DR = 1:1.8

Every 1 person in the working age is responsible for approxim 2 Dependant

Effect of High Dependency Ratio

1. High level of crimes rate.
2. It can result into increase in street children.
3. It can result into increase in government expenditure.
4. It result into low labor force.
5. It results into low savings and investment.

Expectancy.

1. Poor nutrition

2. Poor sanitation
3. High occurrence of Disease such as Malaria
4. Poor Health services
5. Poverty
6. Low level of education

Sex Structure

This refers to the distribution of population on gender basis ie. Males & females – from this we can know how many males & female that compare population of a certain country

Sex Ratio

$$Sex\ Ratio = \frac{males}{females}$$
$$= \frac{2}{6}$$
$$= \frac{1}{3}$$

S:R=1:3

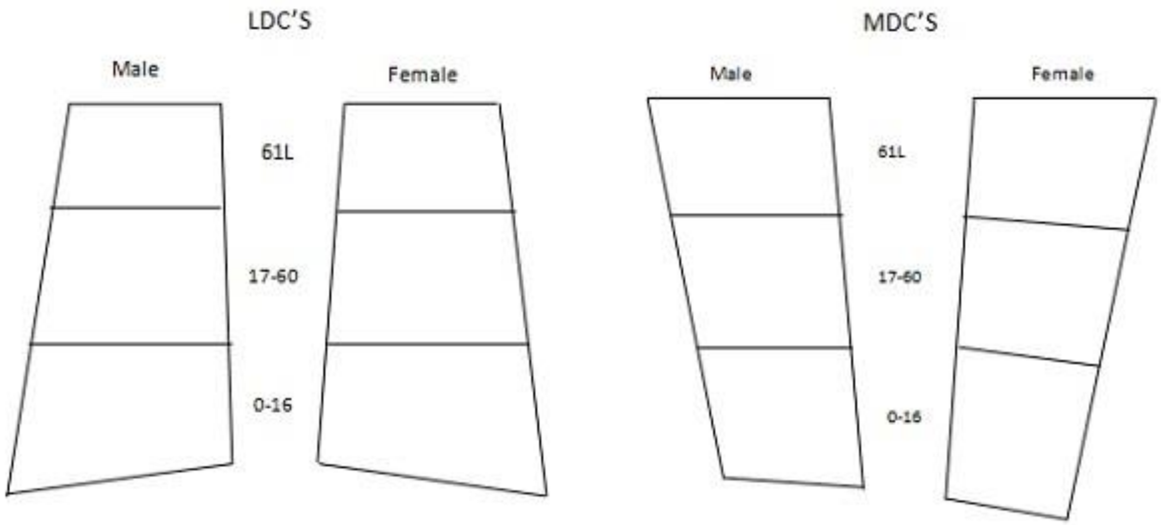
1.

This is the ratio between males and female

Sex ratio = males & female

Assuming Female are 6 and males are 2, calculate sex ratio.

For every 1 male there are 3 females.



CHARACTERISTICS OF MDC

Much smaller at the bottom — low birth rate
Considerably bigger in middle — low death rate
Much bigger at the top — high life expectancy

Characteristics of LDC

Much broader at the bottom — low birth rate
Considerably bigger in middle — low death rate
Smaller at the top — Low life expectancy

1. **Education Structure**

   This shows the distribution of population according to the level of s education i.e, the educated, the un educated and the various levels of education. It is on the basis of this that we can determine the illiteracy rate & literacy rate.

2. **Occupation Structure**

   This is the distribution of population according to different occupations. This helps to know the number of people employed in different professions, sectors etc. It also helps to know the number of employed & the unemployed.

3. **Income Structure**

This shows the distribution of population according to different level of income and it is from this that we can know the number of those who are low income earners, medium and high income earners.

AGING POPULATION

This is a situation when there is more and more old people as compared to the adults and the children.

This is the common feature for more developed countries due to high life expectancy.

EFFECTS OF AN AGING POPULATION

1. It increases the burden to the government and society as such people become dependent, therefore the government and society has to spend more in providing services to such people.
2. Decline in the labor force which affects population.
3. Decline in efficiency of work as old people are always less energetic, both mentally and physically.
4. Increase in demand for goods demand by the old eg. walking sticks, spectacles etc but decrease in demand for goods for children.
5. Limited change in the society as the old tends to be more conservative.
6. Limited mobility of labor as many old is not willing to move from one geographical area to another.

Spatial Population Distribution.

This refers to how population is distributed in relation to the available resources.

There are three types of spatial population distribution;-

i) Over population

ii) Under population

iii)Optimum population

Over population:- This is the situation when the number of people living in a certain geographical area is greater than the resources available. Therefore under such situation the labor force available is more than the resources available.

Indicators of Overpopulation

- Low standard of living
- Food shortage
- Housing shortage
- High level of unemployment
- High pressure of natural resources which tend to result into environment degradation.
- Congestion on social and economic infrastructure e.g. road, school etc

Optimum population:- This is the when the population of a certain country balances with the amount of resources that are available, therefore the country labour force size can fully utilize the available resources.

Indicators of Optimum Population

- There is full employment.
- There is maximum standard of living.
- There is adequate provision of social services.
- There is maximum utilization of resources.
- There is maximum output.

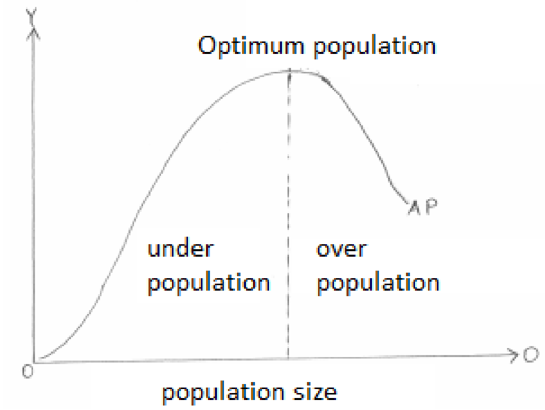
Note: It is difficult to know that a country is at optimum population at a particular point because;

- The stock of resources cannot be accurately known.
- The population size may as well not be accurately known.
- Time also affects the size of population and the stock of resources whereby they tend to change as time goes on.

Under population:- This is the situation when the number of people in a certain geographical area is less as compared to the resources available therefore the available labor force is inadequate to maximum utilize the available resources.

Indicators of under population

- Small market size.
- Low standard of living.
- Shortage of labor force.
- Under utilization and idle resources.



EFFECTS OF A HIGH/ BIG POPULATION SIZE.

Positive Effects

1. Big labor force which can be used in exploiting resource.
2. Big market for goods and services.
3. Big source of revenue to the government through taxes.
4. High output produced in the economy and hence a high national income level.
5. It will also result into more competition in a society which will result into more creativity and inattentiveness.

Negative Effects

1. High level of unemployment due to excessive labor supply
2. High dependency ratio
3. Housing shortage
4. High rate of crimes
5. High government expenditure in provision of social and economical infrastructures.
6. More pressure on social services such as hospitals, schools etc.
7. High pressure on the natural resource which will result into environment degradation.
8. Excessive demand of goods & services which will result in to demand pull inflation

Life expectancy

It is the average number of years a person can live in a given country at a specific period time.

The life Expectancy in LDC's such as Tanzania low as compared to MDC's due to the following factors;-

a. Poor nutrition
b. Poor sanitation
c. High occurrence of diseases such as, Malaria
d. Poor Health services.

e. Poverty.
f. Low level of education.

Population distribution refers to how people are spread in a certain geographical area, therefore this can be even or uneven.

FACTORS THAT INFLUENCE POPULATION DENSITY

1. **Social and economic infrastructures**: - Population density is high in areas where there is availability of social services like hospital, education and economic services like roads, electricity, tap water and telecommunication while in areas there are poor social services and economic infrastructure the population density is very low.
2. **Climate:** Population density is high in areas where climate is favorable for the cultivation of different crops, examples of such areas in Tanzania are Kilimanjaro, Mbeya and In Victoria basis while in area where climate is unfavorable for the cultivation of different crops the population density is low eg in areas of the central parts of Tanzania.
3. **Soil fertility**: Fertile soil attracts human settlements for agricultural activities while infertile will discourage human settlement due to its ability to produce enough harvest; hence in areas with fertile land the population density is low.
4. **Political factor**: Many people prefer to settle in areas with political stability and peace than in areas where there is political instability.
5. **Employment Opportunities**; In areas where employment opportunities are easily available due to presence of many economic activities such as; manufacturing, the population density is high while areas with limited economic activities and employment opportunities, the population density is very low.
6. **Natural Hazards**: Such as volcanic eruptions, floods, droughts etc.Those areas with such problem, population density usually tends to be low and vice versa.
7. **Cultural Factors**: Some of the tribes tend to live in areas which were left by their ancestors as their heritage and continue to produce on those areas so as to create clans and hence high population density.

Population Census

It the complete process of collecting, comparing and publishing demographic and social[economic data as regards to people living in a certain country at a certain period of time.

It is a systematic process of collecting, analyzing and publishing of the population data of people living in a certain geographic area at a specific period of time.

In Tanzania the population census exercise is done after every ten (10) years.

After such period of time fundamental changes are expected to take place as regards the population structure and the social economic factors.

Importance of the National Population Census

1. It is important to the government in the planning process in allocating funds on the provision of social basic services such as education, health etc.
2. It helps to know the population distribution of people in a certain area and it is on the basis of this that it can be known as to which place are under or over populated
3. It helps to know the birth and death rate in the country which helps to establish the population growth rate
4. It helps to determine the dependency ratio in the country by knowing the number of the young and old.
5. It's also important for political reasons eg. in determining comparisons over time as regard population size, the birth rate, death rate etc, between countries
6. Population census data also important for international comparisons over time as regards population size, the birthrate, death rate etc, between countries.
7. Population census is also important in knowing the population of the country e.g. According to the 2002 population census it was known that, Tanzania has a population size of around 36 million people.

Problems encountered in conducting census in Tanzania LDC at large.

1. **Lack of enough funds**: Many LDC, Tanzania inclusive, lack enough funds to carry out a smooth population census exercise. It is upon this that some country at time post pone and other carry out in undesirable manner.
2. Transport and communication especially in rural areas which results into failure to access some of the areas, delay in reporting data & high transport cost.
3. Unreliable data on issues such as level of income, education level, age and so on due to the fact that some people at times are not willing to give the right information as regards to those data.
4. Lack of enough skilled man power which normally results into employing unqualified people for the exercise which normally results into mistakes and errors made.
5. Lack of enough cooperation from the public for the exercise eg, some refuse to be interviewed others, don't even allow to access their homes and others give wrong information.
6. Communication problems. There are some areas where people don't know Swahili.
7. At times, the government manipulates the population census data for its own political reasons. As a result of this population data does not reflect what is actually on the ground.

Population Theory

1. Malthusian Theory and
2. Optimum population theory

1. **The Malthusian population theory**

   This theory was developed by Thomas Robert Malthus, a British economist in the 18th century.

   In his essay principle of population as it affects the future improvement in society 1798. Malthus examined the relationship between population increase and increase in food production.

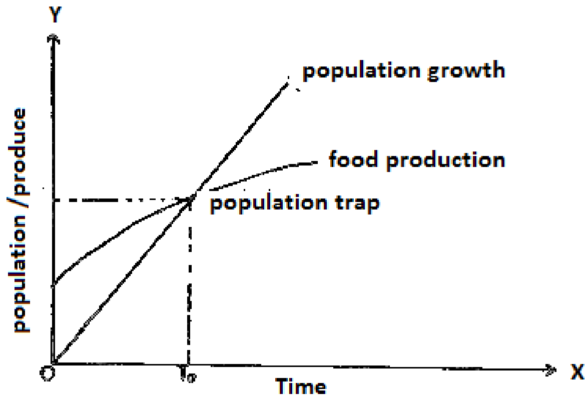
The main features of this theory are,

1. Population increases according to geometric progression i.e. 1,2,3,4,8, whereas the population
2. Population of a country increases at a higher rate as compared to the increase in production of food stuffs.
3. If the artificial methods are not adopted to control the population of a country then it becomes double in 25 years time.
4. If the artificial methods are not adopted to control the population then nature will take the revenge and natural calamities like wars,floods,earth quakes will decrease the population

Assumptions of the theory

- Land is fixed i.e. the land size neither increase nor decrease.
- The law of diminishing returns operates.
- The level of technology is constant.
- He also assumed that there is no trade among countries.

Basing on the above assumptions, foods supply will always increase much slower as compared to increase in the population size and therefore there will be a point beyond which the population size will be too much to be fed by the available food and he referred to this point, the population trap. Beyond this point there is likely to be starvation, famine, death and so on.



CRITICISM OF THE THEORY.

1. The area Malthus studied was very small to establish a theory which could be used worldwide.
2. Malthus did not consider technique progress which can result into increase in food production by applying better farming methods.
3. He ignored the role of international trade which can help to import more food in order to cover the shortage.
4. Malthus only looked at people as just consumers without putting into consideration that a high population size will result into more labor supply and hence increase in food supply.
5. Malthus looked at shortage of food as a result of high population growth rate ignoring other factors such as drought that contributes a lot to food shortage.
6. Malthus also failed to consider the role of transport & communication which allows food to be transported from areas of surplus to area of shortage.

Despite all the above criticism the Malthusian Population Theory is of great application to many LDC's especially in Africa on the following ground;-

1. In many LDC's the population growth rate are very high due to high birth rates but when their food supplies are very low which has resulted into occurrence of starvation.
2. In some countries which are over populated occurrence of natural calamities such as diseases, floods, earth quakes have reduced the population size.
3. It is also true that land has fixed supply which is very big limitation in increasing food supply. It is also true that in many LDC's availability of food has contributed a lot toward increase in birth rate especially in rural areas.

Optimum Population Theory

After modern economists rejected the Malthusian population theory.

Optimum population theory was established. It was stated that the population of a country must be optimum.

Optimum population is that level of population which is most desirable in view of the natural resources of the country. Optimum population is a relative term and it can be determined according to the resources available in the country.

The optimum population theory is more realistic and nearer to reality. This fact makes the Malthusian theory as incompatible these days.

Although, the Malthusian theory has been proved correct in some cases but still it is not a comprehensive or reliable theory. The invention of new techniques of production and the development of atomic energy has made it possible to increase the population at a greater speed. The present population trends are not very encouraging but the steps can be taken which can control the population level and increase the production of different commodities to great extent. Different countries have been very successful to solve this problem to great extent.

Malthusian Theory vs Modern Theory

1. Malthus focused his attention on food production, where as the modern theory takes in to consideration economic development in all aspects
2. Malthusian seemed to be thinking of a maximum number for a country which if exceeded about spell misery. According to optimum theory there is no right fixed maximum.
3. To Malthus famine, war and diseases were indices of overpopulation. But the optimum theory tells us that in the absence of such phenomena there can be over population. It can be shown when per capital income has gone down.
4. Modern theory is optimistic where the Malthusian theory is pessimistic in outlook. Malthus was haunted by the fear that population would outstrip food supply and spell misery.

EMPLOYMENT & UNEMPLOYMENT

Employment refer to the condition in which a resource (especially labour) is actively engaged in a productive activity usually in exchange for an explicit factor payment(such as wage or salary). **Unemployment** refers to the general condition in which resources are willing and able to produce goods and services but they are not engaged in productive activities.While unemployment is mostly thought in terms of labour,any of the other factor of production (capital,land and entrepreneurship)can be unemployed as well.

Therefore a person is said to be unemployed when he is able and willing to work but however cannot find a job at the existing wage rate.

The nature of unemployment.

1. **Voluntary and involuntary Unemployment.**

   Voluntary unemployment is when a person is unemployed because he is not ready to take the existing job at the ruling wage rate, therefore under such situation the job opportunities are available but however a person is not ready to take them because of number of factors such as wage rate.

   Causes of Voluntary Unemployment

- Low wage rate
- More desire of leisure
- Expectation of a better pay alternative job
- Laziness
- Unpleasantness of the job
- Desire to live of family wealth

   Involuntary unemployment is when a laborer is willing and able to work at the ruling wage rate but cannot find an opportunity due to factors such as;

- Technological advancement.
- Discrimination in the labor market.
- Lack of the required skills.
- Climatic changes.

1. **Casual and Persistent Unemployment.**

   Casual unemployment is the temporary type of unemployment which exist due to the fact that some economic activities are temporary e.g. construction**.**

   Persistent unemployment is the type of unemployment which exists even during a boom.

2. **Urban and Rural Unemployment**.

   Urban unemployment is the type of unemployment which exists in urban areas due to the fact that they tend to have a bigger population size due to rural-urban migration.

   Rural unemployment is the type of employment which occurs in rural areas mainly due to the fact that some economic activities such as agriculture are seasonal in nature.

Types of Unemployment

1. **Frictional Unemployment**

This is the type of unemployment which exist when there is lack of adjustment between demand for and supply of labor.

This type of unemployment can as well be called job search or transitional unemployment.Because of the friction that exist in the labor market, there is always a time where people are moving from one job to another as a result of this they will tend to be unemployed for some time.

2. **Seasonal unemployment**

This is the type of unemployment which is as a result of fluctuations in those economic activities that are seasonal in nature eg agriculture as sometimes the seasons may be favorable but at some other time unfavorable and hence resulting into some people being unemployed eg. Agriculture after harvesting or during drought many will be unemployed.

3. **Structural unemployment**

This is the type of unemployment which is as a result of fundamental changes in the economy,such changes normally result in to a number of people being left unemployed. Eg changes in the method of production, decline in the industrial sector and so on will always result into some people being left unemployed.

4. **Technological Unemployment**

This is the type of employment which is as a result of improvement in the level of technology which results into new methods of production. When technology improves demand for labor reduces, as machines substitute laborers and addition to that some laborers might miss the skills to operate the new level of technology.

5. **Disguised unemployment**

This can as well be called hidden unemployment. This exist when a laborer is underutilized where by his performing work which is not enough to make him fully employed. Eg if work that can be done by two people is done by five people. This means that those workers are disguised unemployed.

6. **Residual unemployment**

This is a type of unemployment which is due to physical or mental disability.Firms always don't have interest in employing such people on assumption that they are less efficient and slow in performance and hence unemployed.

7. **Casual Unemployment**

This is the kind of unemployment which is as a result of temporary or short term activities eg. Construction, tourism etc.The moment such activities are over such workers are normally laid off.

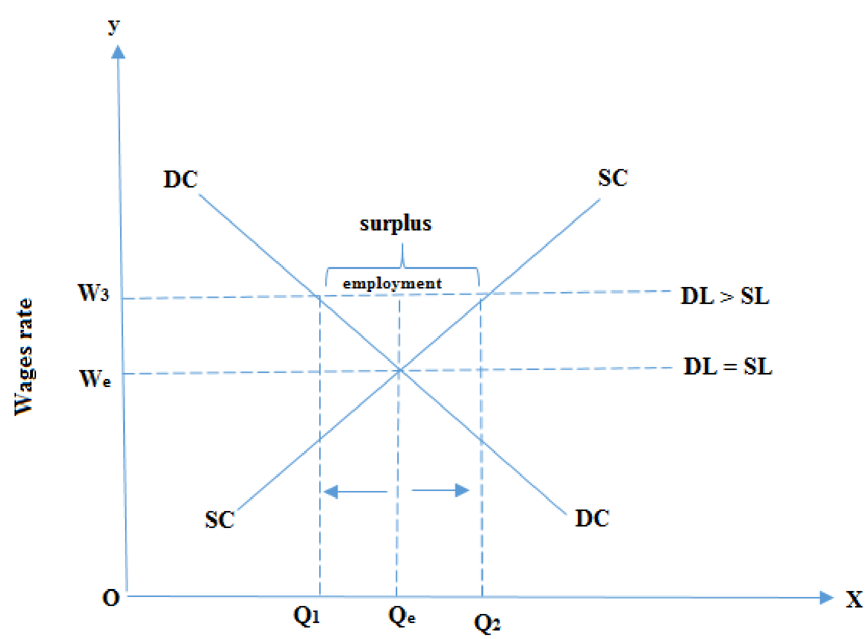
8. **Keynesian/ Cyclical Unemployment**

The type of unemployment is as a result of fall in aggregate demand in the economy during a recession or a depression. When aggregate demand falls, firms reduce their production capacity and others even close down and hence resulting into decrease in demand for labor since demand for labor is derived demand.

“Recession is the period where there is decline in economic activities.

9. **Classical/ Real Wage Unemployment**

This is the type of unemployment which is as a result of laborers demanding for high wages, therefore when the real wages increases supply for labor increases but however demand for labour decreases since such a wage is much higher as compared to the market wage and hence having surplus labor in the market which is not employed.



At the equilibrium wage rate Owe , DL = SL ;there is no surplus labor in the market but however when the wage rate increases from Owe to Ow3, demand for labor reduce but however supply for labor decrease and hence resulting into surplus labor in the market. Q1 – Q2.

Causes of unemployment in LDC's

1. High population growth rate: LDC's have high population growth rate due to high birth rate, this tends to results in to excessive labor supply which cannot easily be absorbed in production activities.
2. The defective education system**:** Is also responsible for high level of unemployment in LDC's on the following grounds

- It produces more job seekers other than job creators
- it is more the original than practical
- It prepares more for white collar jobs which are very few
- It is not flexible with ever changing demand in the labor market

1. Technological progress; Many LDC's are advancing interms of technology and therefore they are being able to come up with techniques of production.eg. the increasing use of computers such progress has resulted into decrease in demand for labor
2. Lack of serious manpower planning: Many LDC lack serious manpower planning whereby as they train labor,they don't project employment opportunities that can be created as a result of this,they tend to produce excessive labor in different professions.
3. Political Instabilities: Many LDC's have experienced political instabilities as a result of wars, this has resulted into contraction in many economic activities as a result of investors with drawing themselves from various activities.
4. Climatic changes is responsible for unemployment in LDC's due to the fact that they are many major economic activities that depend on the prevailing climate like agriculture, tourism, mining etc
5. Poverty is one of the major problem that is experienced in many LDC's and it has contributed alot to unemployment in the following ways:-

- Low level of education.
- Low demand of goods and services.
- Lack capital engaged in different economic activities.

1. The inadequate information system in the labor market is also responsible for unemployment in LDC's as it contributes to labor immobility.

Effects of Unemployment

POSITIVE EFFECTS

1. It helps to control inflation (Demand Pull) due to low demand of goods & services.
2. It help to lower the cost of production since during unemployment the employee's fear to ask for higher wages.
3. It helps to improve discipline of the workers as those employed tend to look themselves as being lucky and hence more effort.
4. It helps firms to recruit the best workers due to higher turn up for application

5. It result in to the promotion of entrepreneurship since the unemployed tend to be more creative and innovative on how to service.

NEGATIVE EFFECTS

1. It lowers the standard of living due to lack of income.
2. It increases the dependents burden which lowers saving capacity
3. Increase in social evils such as theft, prostitution etc
4. It increases the burden to the government eg. in providing unemployment benefit
5. It increases destruction of natural resources due to poverty eg. cutting of trees, construction in swamps etc.
6. It lowers the tax base and hence the government realize less revenue from taxation.
7. Unemployment also results into income inequality and hence creation of classes.
8. Unemployment also results into decline in the size of a national income by the amount that would be produced by the unemployed

Measures that can be taken to control unemployment in LDC's

1. Provision of credit.

   The government should set up a system through which soft loans are extended on soft conditions to those people who are unemployed in order to startup various economic activities.

2. Population growth control

   The government should as well come up with measures in order to control population growth rates which are responsible for excessive labor supply; this can be done through a number of population growth control measures such as family planning.

3. Transformation of rural areas

   The government should as well come up with measures in order to improve rural areas. Eg. through developing the social and economic infrastructure, modernizing of agriculture etc which will help to reduce rural-urban migration which is a major cause of urban unemployment.

4. Making reforms in the education system.

- Subsidizing of school fees.
- Increasing the number of education institutions especially higher ones.
- Increasing vocational institutions etc; which will help to increase the level of literacy which increase a person’s opportunity to be employed.

1. The government should as well encourage the establishment of small scale industries since they require less capital which many can afford mainly use labor intensive methods of production.
2. Diversification of economy

   There is also need for the government to come up with measures in order to create as many economic activities as possible. This will help a lot to deal with seasonal unemployment whereby in case of decline in one of the economic activities people can switch cover to other public sector and so on.

3. The government should as well set up a communication sector through which information is provided to the general public about the vacancies that exist in various regions the private sector, public sector and so on.
4. The government should also aim at maintaining political stability which will help to attract both local and foreign investors which will help to promote economic activities and hence creation of more

   employment opportunities.

Measures that have been taken by the Tz government in order to control unemployment

1. Education reforms.

- Subsidized school fees (primary & secondary)
- Increased number of education institutions
- Focus on higher education
- More vocational institutions eg VETA

- The government through SIDO has promoted small scale industries.

- Use of labor intensive
- Easy to start (little capital)

1. Government has also come up with population growth control measures such as family planning which is provided free in government health institutions
2. The government has joined trading blocs such SADC, EAC, etc to allow Tanzania to easily move and work in other countries
3. The government is trying its level best to maintain political stability in order to attract both local and foreign investors hence creation of more employment opportunities
4. The government has carried out privatization which has opened up doors to people to engage in economic activities.

5. The government has also tried its level best to promote rural areas by developing both social and economic infrastructures in order to reduce rural-urban migration
6. The government has increased its expenditure on agriculture under Kilimo Kwanza in order to promote agriculture which is the leading sector
7. The government has also tried its level best to diversify the economy by developing more economic activities eg. agriculture,mining,fishing,manufacturing etc.
8. The government laid up strategies of increasing provision of credit to the public

- Supported the operations of SACCOS
- The government increased TIB funds
- The government has encouraged banks to soften their lending conditions.

UNDER EMPLOYMENT

Is a measure of employment and labour utilization in the economy that looks at how well labour force is being utilized in terms of skills,experience and availability to work.Labour that falls under the underemployment classifications includes those workers that are highly skilled but working in low paying jobs and part-time workers that would prefer to be full time.This is the different from unemployment in that the individual is working but isn't working at their full capacity.

In those firms where there is under employment withdraw of some laborers cause no effect on total product.

Causes of under employment

1. Lack of enough job opportunities which result into opting for work which is not in line with their qualification.
2. Lack of adequate supervision which result in laziness among laborers.
3. The need for firms to pressure labor for future use.
4. Poor payment to laborers which tends to make them perform less as compared to their capacity.

Natural and Full Employment

Full employment refers to a situation where by all those people who are willing and able to work at the prevailing wage rate are employed.Full employment is a situation when the number of unfilled vacancies is equal to the number of people who are out of work.Also full employment can refer to as the condition that exist when all available resources are engaged in the production of goods and services.In other words;all resources could be used for production are being used.This is indicated in production possibilities analysis by producing a combination of goods that places the economy on the production possibility curve (PPC)

Note: There is normally a misconception that full employment means a situation when all people are employed. It is very difficult to have all people employed at a particular time due to a number of factors such as:-

1. There are those people who are physically disable and hence not able to perform normal work.
2. There are some people who survive on their wealth and hence no need to work.
3. There are some adults who are in full time education.
4. Structural changes such as change in technology, change in taste and preference can as well result into people being unemployed at a particular time.
5. Seasonal changes can as well affect some activities such as agriculture, tourism and hence some people being unemployed at a particular time.
6. Frictional factors which results into people being between jobs, eg. when a person is moving from one location to another, when changing employees,when people are entering the labour market from school.

Conditions necessary to achieve and maintain Full employment

1. There must be adequate expenditures both public and private in order to create sufficient income, demand and hence more investments and hence creation of more employment opportunities.
2. The location of industries should also be controlled where by industries are spread over various parts of the country in order to ensure employment opportunities in all areas.
3. There must be organized mobility of labor where by labor can easily move both occupationally and geographically, eg. labor should easily move from a declining to an expanding industry.
4. There is also need to control inflation as it affects investments and demands.
5. There is also need to have appropriate man power planning in order to easily absorb labor in the employment opportunities available.
6. There is also need to have continuous career progress among laborers so that they can easily stand the ever changing structural changes in the economy.

Problems of full employment

1. The danger of inflation is increased. There are two reasons for this:-

- Over investment is likely to occur

Due to changes of inflation, the government may be inclined to undertake too much investment and so a connection of inflation will be induced, with the demand for labor greater than supply

- The wages policy of the trade unions

Full employment puts the trade unions in a strong bargaining. At times of depression, trade unions have to submit to some reduction in money wage and wait for times of boom to secure wage increases for their member. During over full employment, there is shortage of labor if the wages are high, the cost will be passed to consumers and hence rise in prices, which intern give rise to further demand for wage increase.

1. A distributional of resources may occur, another serious danger is that economic resources will not easily move from one occupation to another. If economic forces are not allowed to determine the distribution of factors among different occupation, the assortment of goods produced will not be that which the community as a whole prefers.
2. The quality of labor may fall.This is due to high demand of labor makes it possible for the least efficient workers to secure employment and also the removal of losing one's job may often subconsciously cause many workers to put forward less effort,some many deliberately slack

Natural Unemployment/ Equilibrium rate of Unemployment

Natural unemployment can as well be called;Equilibrium unemployment.Therefore, Natural Unemployment is the combination of the functional structural unemployment that that persist in efficient,expanding economy when labour and resource markets are in equilibrium.Natural unemployment exist when economy is at full employment,which for practical purpose is defined as the condition in which the quantity of resources demanded is equal to the quantity of resources supplied.Most important for policy purpose,natural employment exists with stable price, that has no inflation.

Non accelerating inflation rate of unemployment (NAIRU)

This is the type of unemployment which exists when the labor market clears with demand for labor is equal to supply of labor.

Natural unemployment exists at full employment when the lab our market is at equilibrium.

Types of Natural Unemployment includes:-

1. Frictional unemployment
2. Seasonal unemployment
3. Structural unemployment

Types of employments

1. **Full time employment** – This is when a person works about 38 hours per week and receive full weekly wages and conditions for working the hour identified in the award and are paid for holding/ sick leave

2. **Casual employment** – Is the type of employment in which employees are engaged to work on an hourly or daily basis. It is a short term employment which involves irregular hours and is not paid for holiday/ sick leave.
3. **Part time employment** – is a form of employment that carries fewer hours per week than a full time job. Part time employees area often hired to help with increased work demand or seasonal industry fluctuation that sometimes occurs in certain industry.

Keynesian Theory of Unemployment

This theory was put forward by Lord Keynes to explain the causes of cyclical unemployment. According to him unemployment is as a result of deficiency in aggregate demand of goods & services. When there is lack of enough demand of goods & services in the economy firms reduce on their production levels. And as a result of this decrease in demand for labor since demand for labor is derived demand.

Keynes suggested a number of measures which can be taken in order to deal with such kind of unemployment and among them are the following:-

- Use of expansionary fiscal policy by increase in government expenditure and reducing direct and indirect tax in order to increase aggregate demand for goods & services.
- Encourage exportation in order to increase the foreign of domestic goods.
- Improve the investment environment by improving economic infrastructure provide incentives to invest and so on.

The Relevance of the Keynesian theory of unemployment to LDC's

1. The increase in government expenditure as suggested by Keynes, will instead result in to inflation since in many LDC's there is instead deficiency of supply of goods & services
2. Keynes only looked at cyclical unemployment but however in LDC's unemployment is more than that eg. seasonal unemployment structural unemployment
3. Keynes did not put in consideration the structural and institutional problems in LDC's that contribute to unemployment in LDC's such as poor transport & communication network poor land tenures

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Keynes suggested a number of measures which can be taken in order following:-

- Use of expansionary fiscal policy by increase in government expenditure and reducing direct and indirect tax in order to increase aggregate demand for goods & services.

- Use of expansionary monetary policy in order to increase money supply and hence increase in aggregate demand and the level of investment.
- Encourage exportation in order to increase the foreign of domestic goods.
- Improve the investment environment by improving economic infrastructure, provide incentives to invest and so on.

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3. Keynes did not put into consideration the structural and institutional problems in LDC's that contribute to unemployment in LDC's such as poor transport & communication network poor land tenures.
4. Increase in money supply in LDC's will not necessary result into increase in aggregate demand in LDC's due to the fact that many people in LDC's have a tendency of holding money.
5. Investment in industry in LDC's has helped so little to reduce unemployment since many industries are capital intensive. However to a small extent the Keynesian theory of unemployment has some relevance to LDC's on the following ground;

- In many LDC's domestic demand of goods is still very low due to a high level of poverty and hence contributing to unemployment.
- The export sector of LDC's is still very poor and hence low demand of the domestic goods in the foreign country.

PRIVATISATION.

It is the transfer of public sectors or enterprise to the private sectors. It is the selling of the government owned enterprises to the private sectors.

Parastatal Organization.

These are state owned enterprises established by an act of parliament to offer vital services to the public. The capital to them is contributed by the government and it appoints the board of directors to run them on its behalf. Eg. TANESCO, DAWASCO, TRC and so on.

Forms of privatization

1. Share issue privatization
2. Assets sales privatization
3. Voucher privatization:distributing shares of ownership to all citizens (at a very law price)
4. Privatization from below:start up of anew private business formerly socialist country

Other Forms of Privatization

1. This involves outright sale of all government shares to the private sectors eg. Kilimanjaro Hotel.
2. Partial Privatization

   This involves the government selling some of the shares to some private sectors and it remains with some (joint venture) eg. N.B.C

3. This is when the government return enterprises and properties to their rightful owners.
4. Contracting out

   This is when provision of goods or services is transferred from the government to the private sector while ownership is retained by the government.

5. This involves renting out a state owned enterprise to private individuals eg. toilets, the markets, bus parks etc.
6. Liberalization / deregulation.

   This involves the government remaining barrier to entry of private individuals in certain undertaking in order to increase competition.

Types of Public Enterprises.

1. **Public Utility Parastatal**:- These are formed to provide vital services to people eg. DAWASCO, TANESCO
2. **Marketing Parastatal**:- These are involved in marketing commodities especially agricultural commodities.
3. **Development Co-operation**: These are established by the government to spearhead some development project eg. National Development Co-operation (NDC)
4. **Financial Cooperation**:- These are established with an aim of mobilizing financial resources in the country eg. NIC, NSSF, TIB etc
5. **State Commercial Enterprises**:- These are established with an aim of making profits to the government eg. the former TBL

   The role played by Parastatal Organization in Tanzania.

1. They have to fill the gap which is left out by the private sector in those ventures which are not attractive to them due to factors such as high capital, high risk etc e.g. airline services.
2. Parastatal organization enhanced and expanded government control of the economy which makes economic planning more easier.
3. They offer services which are very vital to society through which the returns are very less eg. DAWASCO
4. Public enterprises help in creation of employment opportunities to all kind of labor.
5. Government participation in business also helps to reduce the exploitative behavior of private monopolies.
6. Some parastatals make profits which contributes to public revenue.
7. Parastatals like financial institution provide direct financial assistance by providing loans required for development.

Problems facing Parastatals in Tanzania

1. Inadequate Finance:- The government does not have enough capital to inject into these parastatals which affects their operation.
2. Bureaucracy decision making which result into delays in making decisions.
3. The conflicting objective of profitability and social benefits.
4. There is a lot of government intention in the operation of a parastatal organization on political grounds which affects effective operation.
5. There is a lot of corruption and embezzlement.eg.misappropriation of funds etc
6. Inefficiency due to the monopoly power possessed.

Problems that have been experienced in the Privatization Process in Tz.

1. The privatization process has been faced by a lot of opposition from some groups of people especially politicians on the opposition plus some other local people. Thus has slow down the privatization process.
2. Some of the parastatal were really in very poor conditions and therefore have not attracted buyers which has resulted to a very big loss to the government as many assets in them eg. machines have depreciated a lot.
3. Poor social and economic infrastructure:- Social and economic infrastructures such as roads, railways and other communication networks are still in poor conditions, this does not offer a conducive environment for the buyers.
4. Some of the buyers have acted unfaithfully and have failed to complete the payments for the enterprise bought.
5. There has also been lack of transparency on the side of privatization unit which is believed to be corrupt and this has raised a lot of doubt about its credibility.
6. The market size in Tanzania is also still small due to poverty which has been a great worry to the potential buyers.

Advantages of Privatization.

a) It is a one of the ways through which the government can raise revenue and hence reduces, the need to borrow.

1. It reduces government financial burden through financial accommodation of inefficient parastatals in form of subsidies.
2. It helps to widen the tax of the government as more firms engage in production
3. It help to reduce mismanagement and hence encourage accountability and promote efficiency.
4. It also increase the country's chances of security financial aid from international agencies such as IMF & WB who put such conditionals.
5. It helps to create more employment opportunities.
6. It helps to increase production and also improvement of the quality of goods and services provided.
7. It helps to introduce modern technology in the economy.

What benefits has Tanzania experienced as a result of Privatization.

- There has been creation of employment opportunities(unskilled,semi and skilled labor) reduce unemployment.
- There has been improvement in social and economic infrastructure eg. roads,schools, hospitals etc.
- The tax base of the government has also increase investments which enables the government to raise more revenue.
- There has been increase in exploitation of idle resource in order to provide inputs to the started up firms.
- There has also been improvement in technology as new techniques of production have been introduced.
- The financial burden to the government on financing non- performing enterprises has also reduced.
- It has also promoted entrepreneurship in the economy as the public now has more freedom to engage in economic activities.
- It has also created more competition in economic activities which has resulted into improvement inefficiency and quality of goods and services.

Arguments against Privatization in Tanzania.

1. It has resulted in to capital and profit out flow as most of the enterprises are bought by foreigners.
2. It has also widen income inequality in the country since wealth is the hands of the few than in the hands of majority.
3. It has resulted into increase in social cost such as pollution,environmental degradation due to the profit motive under private ownership.
4. It has also resulted into decrease in the government control over the economy as many economic activities are in the hands of the private sector.
5. It has contributed towards increase in unemployment due to do option of capital intensive technique and inflow of foreign labor

6. There has also been failure among the private sectors to run some of the enterprises that provide vital services e.g. TRC.
7. Privatization has also resulted in to emergency of private monopolies which has resulted into provision of poor services and charging excessively high prices.

PRIVATIZATION IN TANZANIA

Privatization is a reform measures that was to make fundamental changes in the economy of Tanzania.

Such reform measures was supported by IMF and WB and has involved transfer of all or any of the three kinds of property rights from the state to the private sectors i.e ownership price, operating rights and development rights.

Between 1995 and 2004 a total of 219 parastatals where privatized among parastatals, economic efficiency, stimulate the private sector, mobilize both domestic and foreign investors etc.

ENVIRONMENTAL ECONOMICS

DEFINITION;

-Environmental economics refers to as a form of progressive economics trying to account for various forms of market failure to better market in the future and lead to more widespread forms among people.

-Environmental economics looks a lot of environmental policies in a country and how they impact the local and global economics either positively or negatively.

-One major corner stone of environmental economics is examining on ‘’market failure’’

MARKET FAILURE

This refers to the situation in which a market fails to generate the greatest social welfare mostly due to imperfect knowledge among the members of market.

Market failure exists due to the man made between what private person does given market price and what a society might want him/her to do protect environment. This implies wastefulness or inefficiency.E.g externalizes and failure to produce welfare goods.

ENVIRONMENTAL POLLUTION

POLLUTION; is the contamination or additional of destructive/ Unrequited material on the environment which may make environment not useful or less useful for human use.

Or

-Is the addition of pollutant to the environment which may destruct the environment.

POLLUTION

These are materials which are in liquid, solid, or gaseous form that pollute the environment by lowering or reducing its usefulness value or quality.

Generally pollutant can be grouped into four types which are solid, liquid, gaseous and radioactive materials. However all these are grouped into persistent and non persistent pollutant.

TYPES OF POLLUTANT

At national level pollution categorized into four main types these are;

1. Land pollution
2. Water pollution
3. Air pollution
4. Noise pollution

LAND POLLUTION

This refers to the disposal or introduction of unwanted substance on the soil which may term land less usefulness for supporting living organism both vegetation and animals. Soil can be polluted by liquid,soil,gaseous or radioactive materials.

CAUSES OF LAND POLLUTION

1. Introduction or disposal of industrial wastes from industrial activities.
2. Disposal of domestic wastes or the land this waste includes garbage and other waste products.
3. Excessive use of chemical sprays and industrial fertilizers in agricultural activities.
4. Falling of acidic rain on the land which adds acidic gases on the soil.
5. Natural calamities such as soil erosion, earth quakes, mass wasting and weathering.

EFFECTS OF LAND POLLUTION

1. Land pollution may cause death of soil living organisms which may cause poor soil, decomposition and low fertility
2. Land pollution may cause water pollution if there is surface run off in polluted soil to the water bodies.

3. Excessive land pollution may cause eruption of diseases such as cholera which may kill many people.
4. Sometimes it may cause migration of people because people may abandon the polluted soil.
5. Emission of bad smell which reduce comfort to the people.

WATER POLLUTION

This is the disposal or discharge or contamination of water by undesirable solid, liquid, gaseous or radioactive materials into water bodies like sea, ocean, rivers, swamp, ponds and springs.

CAUSES OF WATER POLLUTION

1. Discharge of industrial wastes into water bodies due to industrial activities, this mostly occurs in urban area like Dar-es-salaam,due to the presence of many industries affected much by this factor
2. Disposal of domestic waste in water bodies.This occurs in water bodies surrounded by human settlement,so people of that area may pollute water bodies.
3. Oil spillage in water bodies like oceans, due to leakage of oil ship (tanker) and leakage of oil tank and pipe near or in the water bodies.
4. Illegal and excessive fishing activities in water bodies,for example fishing method like use of poisons or explosive in getting fish.
5. Disposal of radioactive and other chemical in water bodies due to testing of atomic bombs.

EFFECTS OF WATER POLLUTION

1. It may kill aquatic living organisms like fish and vegetation.
2. It may cause occurrence of diseases and death of many people in an area, due to the use of contaminated water e.g. cholera
3. It may cause irritation of human skin due to skin cancer by washing their bodies in polluted water and reduce comfort ability to the people.
4. It may cause decline of tourism activities e.g beach tourism

AIR POLLUTION

This is the pollution caused by introduction or emission of unwanted substance in atmosphere which occurs mostly in urban areas.

CAUSES OF AIR POLLUTION

1. Emission of gases in atmosphere due to excessive use of fossil fuel such as charcoal, firewood which lead to emission of oxidized carbon dioxide, Nitrogen oxide in atmosphere.
2. Emission of dust and soot from mining activities which may pollute atmosphere

3. Emission of smoke and gases from volcanic eruption this means volcanically may emit gases and other waste in atmosphere which may cause air pollution.
4. Construction activities which may cause emission of dust in the air.
5. Emission of fumes and gases like Nitrogen gases from a moving vehicle such as aeroplanes, cars, train due to burning of fuel

EFFECTS OF AIR POLLUTION

1. Air pollution may cause destruction of ozone layer due to the emission of gases such as chlorofluorocarbon(CFFC'S) and Nitrogen oxide which may cause depletion of ozone layer.
2. Air pollution may cause global warming in an area. This is an increase in average temperature on the earth's surface due to ozone layer depletion and green house effects which may cause sun rays to penetrate direct on the earth's surface but protected be reflected back.
3. It may cause occurrence of acidic rain. This occurs when the emitted gases in atmosphere(acidic gas) mix with water droplets which may cause acidic rainfall.
4. It may cause death of both plants and animals due to excessive rise in temperature(global warming) and acidic rainfall which may cause death of living organisms.

NOISE POLLUTION

Noise is any disorganized sound or unpleasant sound to people's ear.

Noise pollution is the emission of unpleasant sound or undesirable noise in the atmosphere which may harm people by causing trouble in people's ears.

CAUSES OF NOISE POLLUTION

1. Excessive or unpleasant noise from industrial activities such as iron and steel industries.
2. Noise emission from quarrying and mining activities,this noise emitted from machine and explosive.
3. Noise emission from music halls. This occurs for those halls which has no sound proof mechanism.
4. Excessive noise from moving vehicles. These vehicles include motorcycles, cars and an aeroplane.
5. Noise emitted from natural disasters like thunderstorms.
6. Construction activities which cause eruption of unpleasant sound like road construction.

EFFECTS OF NOISE POLLUTION

Noise pollution may cause the following effects in a country;-

1. It may affect human health e.g. destruction of eardrums to the people
2. It may affect people's comfort,for example people may fail to sleep at night or day due to unpleasant sound.

3. It may disturb wild animals' habitats which may cause the migration of animals and birds from one place to another.
4. Excessive noise may cause skin irritation and headache to the people.

METHODS OF DEALING WITH POLLUTION AT NATIONAL LEVEL

There are several methods used by local or national government in controlling pollution and effects of pollution. All these approach grouped into;

- Pollution taxes
- Quartos on pollution ''Tradable emission allowance''
- Direct control
- Other measures

1. Pollution taxes on tariffs

-These are special taxes imposed to those who pollute environment this tax imposed on production or consumption which cause pollution or products if considered as a source of pollution in environment.

-A pollution tax which is considered as an advantage is that it reduces pollution to the socially ''optimal'' level would be set at a such level that pollution occurs at the level where it benefits to the society (greater production) exceeds the cost.

b.)Quartos on pollution "trad able emission allowance''

-It is advocated that pollution reductions should be achieved by way of trad able emissions permits which freely traded may ensure reduction in pollution are achieved at least cost in theory trad able quotas are allowed, then firms would reduce cost and its own pollution load only if doing so would reduce cost, less than paying someone else to make same reduction therefore firms may change technique or inputs which may be able to reduce cost.

c.)Direct control

- This is the total ban policy where by government use direct method of controlling environmental pollution by establishing strict laws and policy which restricts environmental pollution.

d.)Provision of environmental education to the people on the importance/significance of environment and ways of environment at conservation.

e.)Government should establish laws and policies which completely ban and control pollution and source of pollution.In these methods government may restrict raw materials which cause pollution e.g the use of firewood and use of soft plastic bags.

f.)Introduction and the use of methods of conserving environment like the use of recycling of wastes and Anti pollution equipments i.e production process such as sound proof, coal burning power station, desulphunsation plants.

g.)Government and NGO's should advice producers to produce and market environmental friendly products and making assessment on impact of product/production on environment so as to make right decision on either to allow or restrict investment

h.)The use of improved state of technology in production. This means producers should use efficient technology and technique which minimize pollution on the environment.

i.)Population control policy, government and NGO's should promote on reduction of population because rapid population growth is the main cause of pollution especially in urban areas like Dar-es-salaam.

j.)Efficient town planning with good sewage system and dumping areas and provision of incentives schemes i.e government should provide incentives and awards to those who make proper environmental conservation so as to encourage others.

k.)Better defined property rights

-According to coarse theorem state that assigning property right will lead to an optimal solution, regardless of who receive them if transaction costs are retrieval and the nudes negotiating are limited because property rights identify who has a right to clean the environment or factory has a right to pollute, then either factory could pay factory not to pollute environment.

SUSTAINABLE DEVELOPMENT

Sustainable development refers to pattern of resources use that aimed to meet human needs while preserving the environment so that these needs be met not only in the present but also for generations to come.

Or

Sustainable development also defined as ''development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The concept of sustainable development can be conceptional broken into three parts/types;

1. Environmental sustainability
2. Economic sustainability
3. Sociology-political sustainability

Environmental sustainability

-This is the situation/process of making sure current process of interaction with environment (economic activities) acting environment re perused with the idea of keeping or protecting environment as pristine as naturally possible.

Economic sustainability

-This emphasizes people to change from old sector centered ways of doing business to new approach that involves gross sectoral coordination and integration of environmental and social concerned all development process in short it deals with balanced economic growth and performance

Social sustainability

-This emphasizes integration and interaction between economic activities and environment so as to bring both environmental and economic sustainability in association with creating social equity. Therefore social sustainability achieved by creating equitable economic growth with arable environmental situation.

Generally sustainable development deal with the methods of economic growth and development that does not adversely affects future growth potential.

MEASUREMENTS /INDICATORS OF SUSTAINABLE DEVELOPMENT

Generally sustainable development measured by looking into four main indicators either in local, regional, national even internationally. These indicators are;

i.) Economic performance

-Economic performance include things like increase in GNP, balanced trade and balanced of payment, and other economic aspects, therefore a country with sustainable development experience high growth of GNP and good position of balance of trade and payment.

ii.) Social equity/ Justice

-This relate with things like level of poverty, literacy rate, life expectancy, availability of social services and income equity in an economy. Country with sustainable development has lowest level of poverty, high literacy rate and life expectancy, there is improved social services and equal income distribution and development.

iii.) Environmental protection

-This indicator include things like environmental degradation, water pollution, forest reserve and other environmental issues. Country which experience sustainable development has high level of environmental protection and minimum environmental problems

iv.) Institutional capacity

-This includes International cooperation and integration, research and development, sustainable development, sustainable development of institution like financial institutions.

SUSTAINABLE DEVELOPMENT AND DEVELOPING.(AFRICAN.) COUNTRIES LIKE TANZANIA (APPLICATIONS OF SUSTAINABLE DEVELOPMENT)

Sustainable development integrate a multidisciplinary capacities and interprets socially, economically and environmentally, it emphasize that healthy environment is essential to support a growing economy therefore economic activities and decisions on use of resources should be done to create continued economic development without affecting the environment negatively.

Research shows that economic growth is the best that may help developing countries to conserve their National resources and environment in general since economic growth is associated with technological advancement that may create a catalyst for large scale production improvement of social services at minimum environment problem i.e low pollution.

The following are applications of sustainable development in Tanzania;

1. Sustainable development applied in fishing and water bodies management. This concept used in creating fishing laws and regulations that prohibit fishing of immature fishes and the use of bad fishing methods such as use of explosives, small nets, gunpowder and other methods that has impact to resources in water bodies(fish.) that will limit availability of resources for the coming generation.
2. It is applied in formation of economic growth and development strategies. When government formulates growth strategies it considers environmental protection and long run benefits as sustainable development needs. Under this government formulate regulatory standards like environmental act i.e laws of protecting environment and NEMC as a strategy of reducing pollution, social cost and other environmental effects.
3. Sustainable development applied in tourism and wild life management- Government use the concept of sustainable development in establishing laws and regulations in tourism activities and wild life management such as Afforestation and restrict deforestation and massive tourism that may cause environmental problems avoiding illegal hunting, so as to protect plants and animals and possibility of experiencing drought, which may bring negative impact for the future generation.
4. It is applied in agricultural activities- The concept of sustainable development used in conducting agricultural activities which protect soil fertility and other natural resources for future generation in implementing this, all bad farming method like cultivation along slope, are avoided and crop rotation, application of fertilizers, terracing are applied also avoiding overgrazing and nomadic pastoralism in order to protect soil and environment for future generation (use).

   Although sustainable development has application in developing economies like Tanzania.Research shows that sustainable development is an indicator of developed countries and not suitable for developing countries like Tanzania economists believe that developed countries are polluted enough/ significantly during their development, so it is suitable for them to emphasize and implement sustainable development because they now maintain high level of development rather than struggling for growth and development

Sustainable development is said to set limits on growth and development strategies in third world countries like Tanzania because sustainable development emphasize on pollution reduction and environmental conservation for future generation. This encourages developing countries like Tanzania to reduce pollution which sometimes reduce growth because environmental protection means low production which is against growth and development strategies which needs developing countries to produce and invest more in order to stimulate economic growth that lead to environmental pollution and unsustainable development.

Still other researchers view environmental and social challenges as opportunities for development action. This idea is true because it may create individual enterprise and global opportunities or needs for innovation and entrepreneurial solution.

Some economists consider that, implementation of sustainable development would mean reversion to per-modern lifestyles and according to Mary Jo Anderson ‘’The real purpose of sustainable development is to contain and limit economic development in developing countries (like Tanzania) and in so doing control population.

EXTERNALIZES

In economics point of view externalizes are the costs or benefits not transmitted through the prices incurred by a party who did not agree to the action.

Or

Externalize are those advantages or disadvantages people may get without involving in the activities which result in that cost or benefits.

Externalize are alternatively called spillover. In this case in a competitive market price do not reflect the full cost or benefits of producing or consuming products or services, producers and consumers may either not bear all of the costs or benefits of the economic activities and too much or too little of the goods will be produced or consumed in terms of overall cost or benefits to the society

For example; manufacturing that cause pollution imposes cost on the whole society while fire proofing a home improves the fire safety of neighbors considered as externalize.

TYPES OF EXTERNALIZES

There are two main types of externalize, these are;

1. Positive external
2. Negative external

POSITIVE EXTERNALITY

-These are benefits or advantages people enjoy without incurring any cost (payment). In this case positive externalize increase utility of the third party at no cost to them.

In positive externalize social welfare increase but producers has no way of monitoring the benefits. Positive externalize are also called external benefits or spill over benefits

Examples of positive externalize are education, health initiatives, law enforcement, environmental conservation etc.

Illustrative example of positive externalize

1. When a person plant trees which results into conducive weather condition which make people to enjoy such condition freely without any cost.
2. Factory located in a certain area may bring benefits to the people of that area through enjoying improved infrastructure or getting employment.

NEGATIVE EXTERNALIZES

These are costs or disadvantages incurred by a party who did not agree to the action causing the cost. Negative externalize are considered as disadvantages people incur without their will mostly caused by a production process sometime even consumption.

Negative external is also called spill over cost or public bad.

Illustrative examples of negative external

1. When an industry cause pollution in production process,this is considered as negative external because the pollution impose cost/disadvantage to whole society e.g disease
2. Another example of negative external is when there is discharge of polluted or unclean water in water bodies from industries which results into the loss of living organism while there is no compensation claimed for the loss occurred.

IMPLICATIONS OF EXTERNALIZES

Standard Economic theory state that'' Any voluntary exchange is beneficial to both parties involved in trade if it does not benefit both,however an exchange can cause an additional effects on third parties from the perspective of those affected these effects may either be positive (positive external) or negative(negative external) Welfare economics has shown that those who suffer from externalize implies no voluntary exchange in an economy.