

PRODUCTION THEORY AND MARKET STRUCTURES

Production is any activity aimed at bringing about a physical change in a good to make it satisfy human wants.

OR

It is the process of transforming inputs or raw materials into more useful final products to satisfy human wants.

OR

It is the creating of utility in goods to satisfy human wants.

The production process is not complete until the commodity has reached the final consumer.

STAGES/LEVELS/CATEGORIES OF PRODUCTION

There are three stages of production namely:

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

PRIMARY PRODUCTION

This is a stage where **raw materials are extracted from their natural** state e.g. farming, fishing, mining, lumbering, bee-keeping, oil drilling, etc. The products at this stage are called primary products e.g. agricultural products, fish, timber, etc.

SECONDARY PRODUCTION

This is a stage where raw materials extracted at the primary stage, **are processed and turned into finished goods** for example turning cotton into clothes, timber into furniture.

Secondary production involves manufacturing which involves turning raw materials into finished goods and construction like bridges, road making, house building etc.

TERTIARY PRODUCTION

Tertiary production is the provision of services or intangible commodities.

The output of the primary and secondary stages have to be transported, stored, advertised, and insured. Such services form the bridging stage.

There are two main types of services provided,

(a) **Personal/Direct services:**

These are services provided in person. The service provider and the service consumer must be in direct contact or communication for effective delivery e.g. hair dressing services, Medical care services, teaching services etc.

(b) **Commercial services:**

These are services provided indirectly in large amounts to improve business operation or production. Such services include transport services, banking services, insurance services etc.

TYPES OF PRODUCTION

There are two types of production namely;

1. Direct production
2. Indirect production

DIRECT /SUBSISTENCE PRODUCTION

It refers to the production of goods and services for one's **own/self** use or consumption. For example a carpenter making his own chair, a Tailor making his own shirt or a farmer growing food crops for his own consumption etc.

Characteristics of subsistence production

- Producers mainly use poor/backward/primitive technology
- There is limited specialisation and trade
- Mainly produce poor quality output

- Mainly use unskilled labour
- Mainly barter system of exchange is used.
- Mainly family labour is used
- Mainly produce low output
- There are limited innovations and inventions due to lack of competition.

Advantages of subsistence production

- There is limited wastage of resources since whatever is produced is consumed by the producer.
- It is cheap because it uses cheap and abundant (unskilled) family labour.
- It uses simple tools that are easy to get by the low income groups e.g. hand hoes, knives etc
- It is easy to manage because it is organised on small scale and thus it require limited managerial and supervision skills.
- It is the main source of food.
- There are no transport costs involved since the producer is the consumer.
- It is highly flexible. Subsistence productions easily change from one activity to another.

Disadvantages/ demerits/ shortcomings of subsistence production

- It leads to low tax revenue because people in this sector do not pay taxes.
- Leads to limited innovations and inventions in the sector due to lack of competition. This discourages technological development in an economy.
- It leads to slow economic growth rate due to low quantity of output produced
- It leads to production of poor quality output due to use of poor technology and lack of competition.
- It leads to high levels of under- employment and seasonal unemployment because producers rely on family labour.
- It leads to underutilisation/under exploitation of natural resources because production is on a very small scale.
- It leads to limited specialisation and trade which hinders commercialisation of an economy since the goods produced are not for exchange.

Reasons why subsistence production/ sector is dominant in developing countries:

- Many people are poor and therefore lack capital to carry out commercialized production.
- There is existence of low levels of education and thus producers are not able to carry out commercialised production but rather concentrate on subsistence production.
- Use of poor technology. This makes it hard to produce high quality products in case the producer has to sell.
- Conservatism by the people and therefore resist change from subsistence production to commercial production.
- Poor infrastructure. This makes it very difficult to take the products to markets especially agricultural products.
- Existence of a small market which cannot sustain commercialised production.

INDIRECT/ COMMERCIAL/ MARKET PRODUCTION:

Indirect production is the production of goods and services for **sale** or for **the market** in order to make profits. E.g. a carpenter making chairs for **sale**, a farmer growing crops for sale, tailor making clothes for sale etc.

Features/ characteristics of market production

- Producers are mainly profit oriented/motivated
- There is specialisation because the producers sell their output in order to get what they do not produce.
- They mainly produce high quality products due to competition that exists in the market.
- They mainly employ skilled labour.

- They mainly use improved techniques of production.
- Production is mainly on large scale
- The exchange of output is basically done using money
- Production mainly involves research into better means of production and adding value.

Merits of commercial production

- It contributes to government revenue because commercial production activities are taxed by government.
- It leads to improvement in quality of goods due to competition and use of skilled labour and modern technology.
- It facilitates economic growth because of increased output due to production on large scale.
- It encourages technological development because producers carry out innovation and invention into better technique of production
- Economies of scale are enjoyed in the fields of transport, marketing, technical development and management which reduces the cost of production.
- Specialisation in production is possible because of large size of the production plants and hence the advantages of specialization such as improved quality and increased output.
- Commercial production facilitates the development of infrastructure since there is constant need for transporting final output to the market or need for producers to transport inputs to the production unit.
- It generates more employment opportunities due to large scale production that involves many activities like actual production, processing, transporting, warehousing, marketing etc.
- Leads to increased export earnings because some output from commercial production is exported to other countries. This eventually leads to improvement in the country's balance of payment position.
- It leads to increased utilisation of a country's resources due to large scale production which necessitates the utilisation of the would be idle resources such as land.

Demerits of commercial production

- It is expensive because it involves high costs of production like high cost of hiring skilled labour, buying modern machinery, paying high indirect taxes etc. This reduces the profit margin of the producers.
- It leads to resource wastage resulting from over production where producers remain with unsold output.
- In case of change in demand or change in tastes of consumers against a product, the producers suffer great losses leading to wastage of resources.
- There is danger of technological unemployment as a result of mechanisation in production where human beings are replaced by machines at work.
- It leads to rise in the cost of inputs such as raw materials and other intermediate products due to the increased competition for such inputs by many commercial producers.
- It leads to quick depletion of resources due to their over exploitation as a result of large scale production.
- It leads to diseconomies of scale in the long run. This is because large scale production results into management problems, transport problems supervision problems etc. All these result into increased cost of production.

Limitations of market/commercial production

- Small market
- Limited capital
- Poor infrastructure
- Conservatism
- Limited Labour skills

- Limited entrepreneurial skills
- Political instability
- Poor technology
- Poor land tenure system

FACTORS OF PRODUCTION/AGENTS OF PRODUCTION

Factors of production also known as agents of production refer to resources used in the production process to produce goods and services in order to satisfy human wants.

Production cannot take place if one of the factors of production is missing. This implies that the factors of production are interdependent. Some of the factors of production are financial (financial resources) such as capital, some are natural (natural resources) such as Land and others are human such as labour and entrepreneurship.

There are four factors of production namely;

- Land
- Labour
- Capital
- Entrepreneurship.

Each of them is rewarded for its contribution in the process of production and such a reward is called a **factor Price**.

NB

A factor price refers to a monetary reward/ payment given to a factor of production for its contribution in the process of production.

The factor prices are;

- Wages and salaries for labour
- Interest for capital
- Profit for entrepreneurship
- Rent for land

LAND

This refers to all natural resources i.e. free gifts of nature that are used in the process of production. It includes all kinds of natural resources such as agricultural land, minerals, plants, water bodies etc.

Characteristics of land

- It is a free gift of nature
- Land is fixed in nature
- Productivity of land varies
- Land is subjected to the law of diminishing returns
- Land is mobile occupationally and immobile geographically

Uses of land

- Provides space for the construction of manufacturing plants.
- Provides space for agriculture/farming
- Provides raw materials/minerals

- Used for settlement/ residential purposes

RENT

This is the monetary reward to land as a factor of production for its contribution in the production process. However all rent for Land is economic rent because of the following:

- Land is a free gift of nature with no supply price.

Exercise

Given that the Supply price of a factor is a half times its market price and the market price is recorded at Shs. 840,000, calculate the

- (i) The factor's transfer earnings
- (ii) The economic rent

TYPES OF RENT

1. **Quasi rent:** This is the extra earnings for the factor of production that is over and above the transfer earnings/ Supply price that has inelastic supply in the short run but elastic supply in the long run e.g. the supply of doctors in the short run.
2. **Commercial rent;** This is the payment made for the use of a durable asset e.g. houses, tractors, generators, music systems, etc.
3. **Scarcity rent:** It is payment to the factor of production especially land due to its relative scarcity e.g. Land for construction in urban areas is relatively scarce due to its increased demand for it.
4. **Differential Rent:** It is a reward/payment to a factor of production due to its uniqueness. Normally factors of production are not homogeneous (not similar) e.g. Land which is more fertile will earn higher rent than one which is infertile.
5. **Site / Location rent:** It is the type of rent which is paid to the factors of production especially land due to its location e.g. urban land earns a higher rent than the rural land because of its location in the urban areas.

FACTORS THAT DETERMINE/ INFLUENCE/ AFFECT ECONOMIC RENT

1. **The level of Supply of a factor of production.**
A factor of production with high supply earns a low economic rent and the one with low supply earns a high economic rent.
2. **The level of demand for the factors of production**
A high demand for the factor of production implies a high economic rent and the lower the demand for the factor of production the lower its economic rent e.g. urban land which has high demand earns a higher economic rent than the land in rural areas,
3. **The Elasticity of supply of factors of production.**
The more elastic the supply, the less the economic rent and where supply is perfectly inelastic, economic rent is high, and economic rent is zero where supply is perfectly elastic.
4. **The elasticity of demand for a factor of production.**
A factor of production with inelastic demand earns a high economic rent and the one with elastic demand earns a low economic rent.
5. **Degree of Specificity of a factor of production.**
A highly specific factor of production earns a high economic rent and a less specific factor of production earns less economic rent.
6. **The degree of substitutability of a factor of production.**
A factor with a high degree of substitutability earns a low economic rent and the one with a low degree of substitutability earns a high economic rent.

LABOUR

This refers to the human effort both **mental** and **physical** that is used in the production process.

Labour is vital in the process of production and without it production cannot take place.

The quality of labour can be improved through training so as to equip the unskilled labour with the appropriate skills.

Features/characteristics of labour

- Its human and cannot be separated from the owner.
- Labour effort cannot be stored.
- It is a very mobile factor of production i.e. labour is both geographically and occupationally mobile.

- Supply of labour depends on different factors like population, level of education, training facilities and social conditions.
- It earns a wage or salary.
- Labour is scarce but its supply can be increased.
- The productivity of labour is variable i.e. sometimes labour is very productive due to favourable employment opportunities.
- The demand for labour is derived demand i.e. it is not demand for its own sake but for the sake of goods it helps to produce.

TYPES OF LABOUR

1. Skilled labour

This is a type of labour which has acquired special or specific skills through education and training. People acquire skills through training which may be formal or informal.

Acquiring skills through formal training involves going through school and being trained using a properly designed curriculum.

On the other hand informal training involves acquiring skills while on the job.

2. Semi-skilled labour:

This is the type of labour which has acquired elementary training, therefore not adequately trained.

3. Unskilled labour

This refers to that type of labour which has not acquired any specific or special skills through education and training i.e. it is not equipped with the appropriate skills.

4. Productive labour

It refers to that labour which is engaged in the production of goods and services with a market value. Such labour is rewarded with a wage or a salary.

5. Unproductive labour

This refers to labour which doesn't produce any goods and services.

NB

Co-operant factors of labour are the complementing factors that labour works with to produce goods and services. They are the other factors of production such as capital, land and entrepreneurship.

OTHER CONCEPTS USED IN RELATION TO LABOUR

1. Productivity of labour/ labour productivity.

This is the measure of the quantity of output that a unit of labour can produce **in a given period of time.**

2. Efficiency of labour/Labour efficiency.

This is the measure of the quantity and quality of output that a unit of labour can produce in a given period of time.

FACTORS THAT AFFECT/DETERMINE/INFLUENCE LABOUR EFFICIENCY AND LABOUR PRODUCTIVITY

1. Level of wages.

A high level of wage motivates workers and makes them more efficient and productive because they are contented with the wage paid to them whereas poorly paid workers are de-motivated and therefore are less efficient at work hence producing less output.

2. The level of education and training /skills.

Highly skilled workers are very efficient when doing work because they are well conversant with the work being done, while labour efficiency is low for those workers without appropriate skills because they are not conversant with what they are doing.

3. Level of technology.

Labour efficiency is high when workers are using modern technology because it makes work faster while poor and outdated technology leads to low labour efficiency because the production is slow.

4. The quality of management.

Good management in the business leads to high labour productivity and efficiency because it effectively supervises the workers hence producing more output. On the other hand, poor management in the business leads to low labour efficiency and productivity because of poor supervision of the workers.

5. The working conditions.

Good working conditions like safety precautions, hours of work, accommodation, transport facilities and medical facilities etc motivate workers and make them produce more output while poor working conditions lead to low labour efficiency because workers are dissatisfied with the working conditions.

6. Mental abilities and physical strength.

A mentally sound and /or physically strong labourer is more productive and efficient at work because such a worker has a sound mind which enables him/her to effectively perform the required tasks thus leading to high output while mental disabilities lead to inefficiency because the workers do not have sound mind to effectively perform tasks thus low output produced.

7. The attitude of a worker towards work.

Labour efficiency is higher for workers with positive attitude towards work because they are committed to their tasks thus leading to higher output. On the other hand, workers with negative attitude towards work are less efficient because they are not committed at work thus leading to low output.

8. Level of specialisation of a worker.

Labour efficiency is high for labour that is highly specialised because it enables labour to engage in a particular task in which it is good at hence becoming more efficient. On the other hand labour efficiency is low for workers that are not specialised because they do not concentrate on a particular task hence less efficient.

9. Political atmosphere.

Political stability leads to high labour productivity and efficiency because it allows people to settle and concentrate on their work while political instability leads to low labour efficiency and productivity because workers live under fear and thus do not concentrate at work thus less efficient at work.

10. Availability and efficiency of co-operant factors of production.

The presence of co-operant factors of production that are efficient leads to high efficiency of labour since labour work hand in hand with those other factors of production which leads to high output. On the other hand absence of efficient co-operant factors of production limits labour efficiency because of poor co-ordination between labour and other factors of production hence low output produced.

11. Natural abilities/ Talents.

High level of natural abilities leads to high level of efficiency because of the high level of creativity and innovation of such workers. On the other hand people with limited natural ability are less efficient in production because they are less creative and innovative.

12. Degree of experience/ Expertise.

High degree of experience of labour leads to high level of efficiency because experienced workers are knowledgeable about their work and therefore perform the tasks with ease. On the other hand low degree of experience leads to low labour efficiency, this is so because workers are less knowledgeable about their work, hence take a lot of work performing their tasks.

Factors that lead to high labour efficiency:

- High level of wages
- High level of skills
- Presence modern/ advanced technology

- Presence of good management in business
- Presence of good working conditions
- Presence of mentally sound and physically strong labour
- Positive attitude towards work
- High level of specialisation of labour
- Presence of political stability
- Presence of efficient co-operant factors of production
- High level of natural ability/ talents
- High degree of experience/ expertise

Factors that lead to low efficiency of labour:

- Low level of wages
- Low level of skills
- Poor/Primitive/Outdated technology
- Poor management in business
- Poor working conditions
- Presence of mentally Unsound and physically weak labour
- Negative attitude towards work
- Low level of specialisation
- Political instability
- Absence of co-operant factors of production
- Low natural ability/Limited natural talents
- Low degree of experience

FACTOR MOBILITY/MOBILITY OF FACTORS OF PRODUCTION

Factor mobility refers to the ability/ **ease/ degree** with which a factor of production either moves from one job to another or from one geographical area to another.

Factor mobility is both occupational and geographical.

Geographical mobility of a factor of production is the ease with which a factor of production moves from one area to another.

Occupational mobility of a factor of production is the ease with which a factor of production moves from one job to another.

The inability of the factors of production to move from one job to another or from one geographical region to another is termed as immobility of factors of production.

LABOUR MOBILITY:

This refers to the **ease/ ability/ degree** with which labour moves either from one job to another or from one area /region to another.

The movement is both occupational and geographical.

Geographical mobility of labour: This is the **ability /ease/ degree** with which labour moves from one geographical area/region to another.

Causes of geographical mobility of labour:

- **Insecurity:** labour moves from one area to another due to insecurity in the current area
- **Geographical wage differentials:** Labour may move geographically especially from rural areas to urban areas in search of higher wages.
- **The search for jobs.** Some people move from one region to another in search for employment opportunities.
- **Natural calamities** such as drought and floods can make a worker to move from one place to another.

Occupation mobility of labour: This is the **ability/ease/degree** with which labour moves from one occupation to another.

Causes of occupational mobility of labour:

- The desire for higher wages which are found in other occupations.
- Poor working conditions at the current job.
- Poor administration and lack of prospects for any promotion at the current job makes workers to leave certain occupations and go for other jobs.
- Discrimination in the labour market based on religion, tribe, gender etc

Types of occupational mobility of labour:

Vertical mobility of labour:

This is where a worker moves from a job of a lower rank/grade to that of a higher rank or grade e.g. from the classroom teacher to Head teacher or from an accountant to senior accountant.

Horizontal mobility of labour:

This is where a worker moves from one job to another job but still of the same grade e.g. a classroom teacher moving from one school to another but still remains a classroom teacher.

Advantages of mobility of labour:

- It leads to high levels of employment; this is because labour can move to other areas where there is employment.
- It enables labour to get high wages since it move from low paying jobs to high paying jobs or from low paying regions to high paying regions.
- It leads to high labour productivity i.e. labour tends to move away from where it is not fully utilized to areas or jobs where it is fully utilized.
- Geographical mobility of enables labour to create a sense of international mobility since labour from all parts of the world can come to work together.

Factors that influence / affect/ determinants of labour mobility:

- **Degree of specialization:** Highly specialized labour is immobile because such labour finds it difficult to change from one occupation to another while labour which is not highly specialized is mobile because it finds it very easy to change from one job to another.
- **The payment to labour in the current job:** Labour that is well paid in the current job is reluctant to change his/her job hence immobility because such labour is contented with the payments, while

labour that is poorly paid in the current job is eager to change to a better paying job hence promoting mobility.

- **The cost of training for another occupation:** A high cost of training makes labour immobile because it is not easy to meet those cost so as to take on a new job. On the other hand a low cost of training for another job makes it easy to train and enable labour to take on an alternative job thus promoting mobility.
- **Conditions of work in the current job:** Good conditions of work in the current job makes labour immobile because it is reluctant to move since it is contented with conditions of work at the current job while poor conditions of work in the current job makes labour mobile because workers are keen to change to a new job where conditions are better.
- **The information about existence of other job opportunities:** Labour is mobile when it is informed about the existence of other job opportunities, while ignorance of the existence of other jobs makes labour immobile.
- **Political climate:** Political instabilities in the areas of alternative jobs causes immobility of labour because people fear to go those areas of alternative jobs for fear of losing their lives while political stability in the area of the alternative job makes labour mobile because people don't fear to go those areas of alternative jobs since their lives are not in danger.
- **The strengths of trade unions and professional bodies:** Strong trade unions and professional bodies cause immobility of labour because they restrict the recruitment of workers in their occupations, while weak trade unions and professional bodies encourage mobility of labour because they do not have the ability to restrict recruitment of workers in their occupations.
- **Health of the worker:** Workers with good health conditions are mobile because they can work in any part of the country while those with poor health conditions are immobile because they are not able to move and work in some areas.
- **Age of the workers:** Elderly people are very reluctant to change occupation and this makes labour immobile because such people are not willing to take on new challenges, while young people who are very vibrant, are still adventurous and therefore eager to change the job and this makes labour mobile.
- **Availability of jobs specifications:** Labour becomes mobile if the worker has or meets the specifications required by the employers, in the alternative job. On the other hand labour that lacks appropriate job specifications is immobile because the employers in the alternative occupations are not willing to take on such people.
- **Cultural factor:** Labour is immobile if it has strong cultural ties because it is not ready to go to other areas with alternative jobs. On the other hand labour without strong cultural ties is mobile because there is nothing it to a particular area.
- **Fear of the unknown:** This causes immobility of labour because people fear to risk whereas labour that is daring is mobile because it doesn't fear risks.

LABOUR IMMOBILITY:

This refers to the inability of Labour to either change from one job another or from one geographical area to another.

There are two types of labour immobility;

Occupational immobility of labour: This refers to inability of labour to move from one job to another.

Causes of occupational immobility of labour:

- **Limited natural ability.** Some people do not have certain natural abilities necessary for certain occupations and therefore they cannot take on such occupations.
- **Long training period for other jobs.** Some occupations/professions that take long period of training brings about occupational immobility e.g. Medical Doctors who take seven years to qualify and start working.
- **High cost of training for another job.** Some people do not have adequate funds necessary to train for the alternative jobs.
- **Old age.** Individuals who are advanced in age cannot easily change to other jobs because they are approaching retirement age.
- **High degree of specialisation of labour/Limited skills for the alternative job.** Workers who are highly specialised in one occupation find it difficult to move to other jobs since they have qualifications for one occupation.
- **High prospects of promotion in the current job.** A high prospect of promotion in the current job discourages labour to join other jobs for fear of missing such promotions.
- **High social status /High self esteem of the current job.** Individuals are reluctant to leave the current job because of the high self esteem associated with the current jobs.
- **Barriers by trade unions and professional bodies.** These limit entry of other people without the necessary qualifications hence limiting occupational mobility of labour.
- **Stringent requirement for alternative occupations.** This limits the occupational mobility of labour due to high bureaucratic tendencies involved in getting the alternative jobs.
- **Limited information about alternative job.** Some people are not aware about the presence alternative jobs hence failing to change from the current job to the alternative jobs.
- **Better wages in the current jobs.** Employees remain in the current jobs because they are satisfied with the wages paid at the current jobs.
- **Better working conditions in the current job.** Employees are reluctant to leave their current jobs because of the good working conditions which are satisfactory.
- **Social ties/Restrictions.** Employees are reluctant to leave the current jobs because of the social attachment they have at the current jobs e.g. religious attachment, being a relative to the employer etc.
- **High discrimination in the labour market.** Employees are unable to join the alternative jobs because the employers in the new jobs are not ready to offer them those jobs for some reason e.g. not belonging to the right tribe, race or religion of the employers' preference

Geographical immobility: This refers to the inability of labour to move from one geographical area to another.

Factor that cause geographical immobility of labour

- Limited information about existence of jobs in other areas
- Political instability in some areas of the economy
- Poor infrastructure in some parts of the country
- Strict immigration laws
- Low wages in some parts of the country
- Poor working conditions in some parts of the country
- High transport costs to move to some parts of country

- Socio-cultural ties

Solutions for labour immobility:

- Advertise employment opportunities so as to make people aware of the existing jobs.
- Encourage the people to retrain or go for refresher courses so as to be occupationally mobile.
- Improve the political atmosphere so as to make all areas accessible to the workers
- The government should regulate the powers of the trade unions and professional bodies.
- Infrastructure should be developed to encourage the movement of labour from one place to another.
- The government should relax immigration laws so as to encourage the people to go for employment outside the country.
- Increase wages in areas with low wages.
- Improve working conditions in other areas/alternative jobs.
- Fight social prejudices.
- Subsidize transport for workers.

Factors that promote/ encourage labour mobility in an economy:

- Low level of discrimination in the labour market
- Limited social ties/limited restrictions
- Better working conditions in the alternative jobs
- Better wages in the alternative job/occupation
- Presence of information about the existence of alternative jobs
- Presence of requirements for the alternative job
- Absence of barriers by trade unions and professional bodies
- High social status/high self esteem of the alternative occupation
- Low prospects of promotion in the current job
- Low degree of specialization of labour/ presence of the required skills for the alternative occupation
- Youthful labour
- Low cost of training for the alternative job
- Short period of training for the alternative occupation
- Presence of natural abilities for the alternative occupation

DIVISION OF LABOUR AND SPECIALISATION:

Division of Labour refers to the act of allocating different tasks among different individuals during the production of a particular commodity e.g. in shoe manufacturing, some people can design the soles, others cut the upper leather, others fix the laces, etc. in order to complete the production of a shoe.

Specialization:

This refers to the concentration of an individual or a country on producing one or a few goods or doing a particular type of work or producing a particular commodity which/ that individual or country is good at.

Types/ Forms of Specialization

- **Specialization by skill/profession:** This is where an individual or a worker concentrates on a particular skill or work or profession one is good at. e.g. one specialises as a teacher, doctor, an engineer, etc
- **Specialisation by commodity:** In this case an individual concentrates on the production of a particular commodity that he/she can do better than others.
- **Specialisation by Process:** This is where a worker or a group of workers concentrate on performing a particular activity in the production process.
- **Specialisation by area or region/Regional Specialisation:** This is where a particular region or area concentrates on carrying out a particular activity or producing a particular commodity that they can do better than others. eg tea growing in an area.
- **International specialisation:** this is where a country concentrates on a particular commodity or field of production in which it has a comparative advantage over others. For example Brazil for Coffee.

Merits /advantages of Specialisation:

- It improves the quality of output since skilled workers / experts using machines are employed
- It improves the skills of the workers because the workers do the same activity repeatedly.
- It increases production / output i.e. it encourages mass production since every worker becomes an expert in his work and produces greater output within a short time.
- It saves time that would otherwise be wasted moving from one job to another and learning a new task as a worker concentrates on only one activity
- It increases resource utilization because of improved efficiency in the use of machines.
- It promotes commercialisation in the economy because it brings the need for exchange in order to get what you don't have or what you cannot produce.
- It encourages the use of machines in the production process which leads to increased output
- It reduces fatigue by making the work more enjoyable and less tiresome
- It provides employment to specialist workers e.g. engineers, accountants etc
- It provides a variety of products because different people engage in producing different products

Demerits of specialisation and division of labour

- It creates a lot of interdependence which causes delay or a standstill in production in case one worker is not there.
- High risks of unemployment where the more specialised one is, the lower the occupational mobility. This is so in the event of change in demand or fashion as specialist workers who are laid off cannot easily shift to other tasks or jobs
- International Specialisation encourages economic resource dependence i.e. where countries rely on resources from other countries for their development and survival.
- Leads to decline in craftsmanship with employment of machinery in a production processes, the workman cease to be innovative /creative /inventive and becomes mere attendant of the machines
- Specialisation may also lead to reduction in the quality of final goods. This is because no single worker is to blame for bad results.
- Creates monotony and boredom by doing the same task repeatedly. Boredom at work increases the risk of accidents and absenteeism both of which lead to decline in production.
- Breakdown of machinery at one stage brings the entire production process to a standstill
- It leads to overproduction hence wastage due to limited market

- Leads to quick depletion of resources due to over-exploitation of natural resources.

Specificity of factors of production

The degree of specificity of factors of production refers to the extent to which a factor of production can be transferred from one purpose to another.

Some factors of production are specific or specialised while others are not. A factor is said to be specific if it is of a specialised kind and therefore cannot easily be used for any other purpose other than the one it was originally intended for. Such factors include: very highly skilled and trained labour and some capital assets like flat iron, sewing machines, fridge etc

While non specific factors of production are those that can easily be transferred from one use to another e.g. unskilled labour (casual labour), agricultural land etc.

Relationship between mobility and the degree of specificity of factors of production

The degree of specificity of factors of production affects its mobility in that factors of production which are highly specialised are occupationally immobile where as factors of production with a low degree of specialisation are occupationally mobile.

CAPITAL:

Capital refers to all man made goods that are used in the process of production to produce other goods e.g. machinery, buildings, cash, vehicles, etc.

Capital is rewarded with interest.

Types /Forms of capital:

- **Real Capital:** This is the capital in form of physical assets e.g. the fixed assets like machinery, buildings, vehicles, etc
- **Liquid/money capital:** This is capital in form of cash which includes both currency notes and coins.
- **Private or Individual capital:** This is capital owned exclusively by an individual or a group of individuals and it's accumulated by them. Examples include investment in business, shares of companies and bank deposits which bring income to an individual.
- **Public /Social Capital:** This is capital owned by the state and used collectively by the society e.g. Public hospitals, public schools, public parks etc.
- **Fixed Capital:** This is capital in form of durable assets.
- **Floating Capital:** This is capital whose use is not fixed and can be used for many purposes e.g. money (cash), buildings, etc
- **Sunk Capital:** This is fixed capital that cannot be used for any other purpose apart from one it has been made for e.g. Railway line, ice cream plant etc.
- **Circulating or working capital:** This is the capital in form of cash which is used to meet the day today expenditures of the business e.g. paying wages, purchasing raw materials, meeting transport costs .Circulating capital is also referred to as Working capital or Variable capital
- **Human capital.** This is the skill which is instilled in Labour or human persons through education or training.

Features of capital as a factor of production:

- Capital is man made
- Capital depreciates in value due to wear and tear
- Capital accumulates with time
- Its reward is interest

Sources of capital to an individual:

- From personal savings
- Inherited wealth or incomes
- From retained profits
- Acquisition of loans from financial institutions
- Loans from prosperity for all.
- Gifts and transfer incomes

Sources of capital to the government:

- Revenue realized from taxes
- Proceeds from public enterprises
- Donations and grants from other countries
- Loans from donors
- Raising money through the sale of treasury bills.

Role of Capital in the Production process

- It increases efficiency and productivity of other factors of production especially Labour. A person who is equipped with capital goods such as machines is in a better position to increase his/her output levels and the quality of output also improves.
- It facilitates optimum use of resources /Facilitates optimum employment of resources. Capital in form of machinery enables an economy to utilize the available resources and therefore reduce resource wastage.
- It facilitates research in an economy. Capital in form of machinery and money enables research to be introduced in various sectors and this therefore results into technological development, innovations and inventions which help in rapid development of the sectors of the economy.
- It promotes specialisation in the production process since machines are used and they make specialisation very easy. Capital in form machinery enables an individual to concentrate in production of a particular commodity. This results into an increase in volume of goods and services hence promoting trade in an economy.
- Capital is an engine of economic reforms. Capital makes it possible to transform a primitive economy to a more sophisticated economy i.e. capital is a means of technological transformation where a backward society can easily be changed to a modern one.
- It facilitates exchange and trade and therefore encouraging commercial production.
- It facilitates the development of infrastructure, because money is used to construct good infrastructure.
- It leads to increased output of goods and services because it simplifies and quickens the production process. Capital in form machinery simplifies hard tasks which cannot easily be done by Labour and therefore more output can be realised in the production.

- It facilitates further capital accumulation by using real capital assets as collateral security, i.e. real capital enables industries or firms to get loans from financial institutions which increase the level of investment in the country.
- It facilitates industrialisation process because the money is used to build or construct industries that produce goods and services, capital in form machinery enables an economy to establish large industrial base which helps in transforming the raw materials into finished goods.
- It improves the quality of final goods because the use of machines ensures standardisation of goods.
- It improves labour skills. As labour uses machines in the production process, it acquires different skills of operating, maintaining such machines.
- Creates employment opportunities. Liquid capital facilitates investment in the country thus helping in the creation of employment opportunities.
- It promotes technological development and technological transfer. Money capital is used to carry out research into better methods of production, at the same time it is used to buy new machines/technology from other countries. The new technology acquired improves the ability of a country to utilise its natural resources.
- It reduces economic dependence. Capital enables the country to develop the different sectors of the economy such as agriculture, industry, tourism etc, this helps to reduce sectoral dependence.

Negative role of Capital in an economy:

- It leads to over exploitation of resources. The machines irrationally exploits the natural resources in the country thus cause their quick depletion.
- Creates social costs like pollution. Most machines pollute the environment by releasing dangerous gases into the atmosphere; this reduces the quality of peoples' lives in the affected areas.
- Creates technological unemployment. Some machines replace human labour at places of work and this cause unemployment e.g. the introduction of the Automated teller machines (ATM) in the banking industry have reduced job opportunities for labour in the sector.
- Capital leads to overproduction, this is because machines work at a very high speed and produce goods in excess of demand, which leads to wastage of resources.
- Capital in form of machines is associated with accidents, these lead to loss of life, property and goods being produced.

Capital Accumulation/ Capital Formation

Capital accumulation or formation: This refers to the **process** of creating a country's stock of capital goods mainly through Investment:

OR: The **process** of increasing a country's existing stock of producer goods or capital goods.

Important concepts to note:

- **Capital appreciation.** This refers to the **increase /gain** in the value of capital goods /assets.
- **Capital depreciation/ Capital consumption:** This refers to the reduction in value of the capital assets/ capital goods having been used overtime.

OR: This refers to the wear and tear of machines of machines during the production process.

- **Capital consumption allowance:** This is the money or fund put aside by the business owners so as to replace the worn out capital assets by making repairs, by buying spare parts.

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Factors affect/influence/determinants of Capital Accumulation/Formation:

- **The level of income:** High levels of income earned by individual's increases the amount of money saved by them or the nation .Increased savings therefore promotes capital accumulation due to increased investment. On the other hand low levels of income earned by individuals or a nation leads to low levels of savings hindering capital accumulation due to low levels of investment.
- **Level of savings:** High levels of savings accelerates the level of investment in the country due to presence of investment funds, this promotes the process of capital formation in the country, while low levels of savings leads to low levels of investment due to limited investment fund, this limits the process of capital accumulation in the country.
- **Political atmosphere:** Political instability in an economy discourages the process of investment, this is because it scares away the potential investors due fear of losing their property and lives. On the other hand political stability promotes the levels of investment in the country, this is because the investors are not scared of losing their lives and property, and this promotes the capital formation process.
- **Population growth rate:** High population growth rate leads to high dependency burden which results into low levels of savings limiting investment in the country thus leading to capital accumulation. On the other hand low population growth rate leads to low dependency burden which promotes investment in the country thus leading to high levels of capital accumulation.
- **Level of development of infrastructure:** A high level of development of financial institutions encourages people to save and also enables individuals to borrow funds for investment; this promotes capital accumulation in the country. On the hand low level of development of financial institution limits mobiliastion of savings and also makes it difficult for potential investors to acquire loans, limiting investment and thus low lows of capital accumulation.
- **Level of entrepreneurship:** High level of entrepreneurial skills in an economy leads to high levels of investment because there are many people who are ready to initiate businesses and sustain them; this promotes capital accumulation in the country. On the other hand low levels of entrepreneurial ability leads to low levels of investment because there are few people who are ready to initiate businesses and sustain them, this limits the process of capital accumulation in the country.
- **The rate of inflation.** High rate of inflation in an economy discourages savings thus limiting investment funds thus leading to low investment in the country thus low levels of capital accumulation. On the other hand low rate of inflation encourages savings which leads to high investment funds, this promotes investment thus leading to high levels of capital accumulation.
- **Size of the Market:** A large market size encourages investment in the country due to high levels of profitability of doing business, this promotes capital accumulation in the country On the hand a small market discourages investment due to low level of profitability, and this limits capital accumulation in the country.

- **Availability of investment incentives:** Presence of investment incentives such as provision of subsidies, tax holidays etc., encourages investment in the country due low cost of doing business, this promotes capital accumulation in the county. On the hand limited investment incentives such high levels of taxation, low levels of subsidies etc. discourages investment in the country due to low levels of profitability of doing business, thus limiting capital accumulation.
- **The degree of accountability.** High levels of accountability encourages investment in the country because potential investors are not asked for bribes, this promotes capital accumulation in the country. On the other hand low levels of accountability discourages investment because potential investors are asked for bribes, this limits the process of capital formation in the country.
- **The level of Capital inflow and Capital outflow:** High levels of capital inflows in the country leads to high level of investment because of presence of the necessary capital, this promotes the capital accumulation process in the country. On the other hand high level of capital outflows limits investments funds in the country due lows levels of the necessary capital; this limits the capital accumulation process in the country.
- **Existing stock capital:** High levels of capital stock encourage investment in the country this promotes capital accumulation. On the other hand low levels of existing capital stock limits investment levels in the country, thus low levels of capital accumulation.
- **The time preference/ Consumption habits:** This is the desire by individuals to spend their income now or later. Where there is positive time preference, it limits savings thus discouraging investment hence hindering capital accumulation. On the hand a negative time preference implies low levels of present consumption which leads to high levels of savings thus promoting investment; this encourages capital accumulation in the country.
- **Demonstration effects in consumption:** A high levels of demonstration effects leads to high levels of consumption, this limits savings thus low lows of investment leading to low levels of capital accumulation, on the other hand low levels of demonstration effects leads to low levels of consumption, this encourages savings thus promoting investment and hence promoting capital accumulation.
- **Cultural factors/Degree of conservatism.** High degree of conservatism limits the level of investments in the country because conservative people are less adventurous thus leading to low levels of capital accumulation due to low levels of investment. On the other hand low degree of conservatism encourages investment in the country because people are more adventurous and willing to take risks thus promoting capital accumulation.
- **Level of interest rate on loans or savings:** High interest rate on loans discourages investment because of high cost of doing business which limits profitability thus limiting capital accumulation. On the other hand low interest rate on loans encourages investment due to low cost of doing business which leads to high profitability thus promoting capital accumulation.
- **The level of monetisation of the economy/The size of the subsistence sector:** High level of monetisation of the economy encourages commercial production which leads to high levels of incomes among the people; this promotes savings leading to high level of investment thus high levels of capital accumulation. On the other hand low levels of monetisation of the economy discourages commercial production leading to low incomes among the people, this limits savings leading to low level of investment and thus low levels of capital formation.
- **The land tenure system:** Favourable land tenure system increase accessibility to land by potential investors which leads to high levels of investment hence promoting capital accumulation. On the other hand unfavourable land tenure system denies potential investors to land which limits investments in the country hence low levels of capital accumulation.

- **The state of technology:** Advanced techniques of production encourages investment in the country, this promotes capital accumulation. On the other poor state of technology discourages investment in the country, this limits capital formation in the country.

Factors promoting Capital formation

- High levels of income
- High levels of savings
- Low rate of inflation
- Presence of well-developed infrastructure
- Presence of investment incentives
- High levels of entrepreneurship
- Presence of large market size
- High levels of existing capital stock
- High degree of accountability
- High levels of capital inflow
- High levels of technological development
- Low population growth rate
- Low degree of conservatism
- Low interest rate on loans / high interest rate on savings
- High levels of political stability
- Favourable land tenure system
- High level of monetisation of the economy.
- Negative time preference
- Low level of demonstration effect.

Factors limiting/hindering capital accumulation

- Low levels of income
- Low levels of savings
- High rate of inflation
- Low level of development of (financial) infrastructure
- Limited investment incentives
- Low level of entrepreneurial ability
- Low degree of accountability /high rate of corruption and embezzlement of public funds
- Low level of existing capital stock
- High rate of capital outflow
- Political instability
- Low levels of technology
- High population growth rate
- High degree of conservatism /cultural rigidities
- High interest rate on loans/ low interest rate on savings
- Small market size/limited market
- Poor land tenure system
- Low level of monetisation of the economy
- Positive time preference
- High level of demonstration effect

Measures of increasing/promoting Capital accumulation/Formation

- Controlling population growth rate so as to encourage people to save and invest because of reduced dependence burden.
- Maintaining political stability to encourage both local and foreign investors due to certainty of doing business
- Improving on the infrastructure especially the financial institutions so as to enable them mobilize savings from people for investment.
- Extending credit facilities to investors to enable them carry out investment
- Improving on the land tenure system so as to enable investors get access to land so as to carry out investment
- Controlling inflation to encourage savings that avails funds for investment
- Provide investment incentives such as subsidies, tax holidays that encourages investment due to low cost of doing business
- Expanding the market size e.g. through joining regional economic integration which motivates people to carry out investment due to widened market and thus
- increased profitability
- Fighting corruption/ensure high levels of accountability
- Improving entrepreneurial skills/ability
- Encouraging capital inflow
- Providing affordable loans/credit facilities or increase interest on savings

Factors limiting mobility of capital include:

- High degree of specificity of capital
- Impossibility of relocating/Fixed nature of some capital e.g. a building is not movable
- Excessive weight of some capital goods e.g. heavy machines are not easily moved from one place to another.
- High cost involved in changing the use.
- Low payment in alternative use
- Inappropriate conditions in alternative location/use
- High cost of transporting some capital from one place to another.
- Unfavourable government policy towards movement of certain capital
- Poor land tenure system which leads to land fragmentation which does not enable the use of heavy tractors.
- Limited skilled personnel to manage capital in other locations.

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ENTREPRENEURSHIP:

This is a factor of production that initiates business, controls, coordinates, organises and takes all the risks i.e. he/she brings together all the other three factors of production. Entrepreneurship is done by an entrepreneur who is a person or group of people who initiates the business. The entrepreneur is the highest decision maker in any business. An Entrepreneur earns profits for his/her contribution in the production process.

Types of Entrepreneurs

- Directors
- Sole traders
- Share holders

- State

The Functions of an entrepreneur:

- Initiating business activities. The entrepreneur is the inventor who thinks about what to produce, contributes the capital and start production.
- Mobilising, organising, and coordinating other factors of production
- Making all the production decisions on behalf of the firm since he/she owns the business.
- Coordinating business activities, he/she is responsible for monitoring supervising and all business undertakings.
- Bearing the all the risks of the business. He/she risks his capital and other resources against uncertainties in business.
- Managing the profits and losses of the firm
- Inventing and innovating better methods of production so as to increase the output and also improve the quality of output sold.

Factors affect/influence/ determine the supply of the entrepreneurs:

- **Size of the market:** Where the size of the market is big, many people are stimulated to risk their capital in the business due to high level of profitability thereby increasing the supply of entrepreneurs. On the other hand a narrow market discourages potential entrepreneurs due to low profitability leading to low supply of entrepreneurs.
- **Level of education and training:** The high levels of education leads to high supply of entrepreneurs because such people gain the necessary skills to enable them undertake risks. On the other hand low level of education limits supply of entrepreneurs because such people fear to take risks since they have not acquired the necessary skills.
- **Availability of investment incentives: presence of investment incentives such as subsidies, tax holidays etc** lead to increased supply of entrepreneurs due to low cost of doing business. On the other hand limited investment incentives such as high level of taxation, limited subsidies lead to low supply of entrepreneurs due to high cost of doing business.
- **Level of economic development: high** level of economic development lead to high supply of entrepreneurs due to high effective demand. On the other hand low level of economic development limits the supply of entrepreneurs due to low effective demand.
- **Availability of capital and other economic resources:** presence of capital and other factors of production lead to high supply of entrepreneurs because there are co-operant factors of production which attracts people to initiate/start businesses. On the other hand, limited supply of capital and other factors of production lead to low supply of entrepreneurs because there are few co-operant factors of production which hinders initiation/starting up of businesses.
- **Level of development of infrastructures:** Well developed infrastructure like financial institutions extend loans to potential investors thereby leading to high supply of entrepreneurs. On the other hand, low level of development of financial infrastructure limits of provision of loans to potential investors, thereby leading to low supply of entrepreneurs.
- **The political climate:** Political stability gives confidence to potential to risk their capital and other resources in businesses thereby leading to high supply of entrepreneurs. On the other hand political instability discourages potential entrepreneurs to risk their capital and other resources in businesses thereby limiting the supply of entrepreneurs in the country.

Factors which limit development of entrepreneurship in developing countries:

- **Inadequate training facilities:** This has hindered the training of entrepreneurs and modern managers and administrators.
- **Poor infrastructures:** In many developing countries the state of physical, financial, social and commercial infrastructure is very poor this limits investment in the country thus discouraging the development of entrepreneurs
- **Poor state of technology** In developing countries there is use of backward techniques of production; this leads to low output, low revenue, and low profits which discourages entrepreneurship:
- **Limited credit facilities:** Most people in developing countries do not have enough capital for investment, even the institutions to provide loans are very limited and unwilling to lend hence hindering development of entrepreneurs
- **Political instabilities:** Political instability discourages investment because entrepreneurs fear to risk their capital hence limited supply of entrepreneurs.
- **Limited investment incentives.** This leads to high cost of production which discourages investment thus discouraging the development of entrepreneurs.

POLICY MEASURES TO PROMOTE ENTREPRENEURSHIP IN DEVELOPING COUNTRIES:

- Maintenance of stable political climate so as to stimulate local and foreign entrepreneurs.
- Encourage formation of associations to stimulate private entrepreneurship e.g. Uganda Manufacturers Association (UMA).Uganda small scale industries, Uganda private sector foundation, etc. to create dialogue between entrepreneurs and government.
- Use of fiscal and monetary policies to avail capital to entrepreneurs, like through lending at low interest rates.
- Set up training institutions to train entrepreneurs through popularizing entrepreneurship education in all schools.
- Undertake infrastructural development. The government should embark on developing infrastructures such so as, commercial banks, insurance companies in order to encourage entrepreneurs to undertake risks in investment.
- Market expansion policy-the government should come up with policies to enlarge the market through joining economic integration and encouraging trade fairs

FORMS OF BUSINESS ORGANISATIONS:

There are different forms of business organizations and these include;

1. **Sole proprietorship:** This is a business started, owned and run by one person who contributes the capital, shares all profits and incurs losses.

Advantages of sole proprietorship:

- She/he enjoys all the profits alone
- She/he enjoys top secrecy
- She/he is able to establish a direct contact with the customers and employees.
- It is easy to start and manage
- It is a source of employment to his/her family members
- There is close supervision of the business activities.

Disadvantages to sole proprietorship:

- There is limited capital to expand the business.
- There is unlimited liability i.e. in case the sole proprietor fails to clear the debts using business resources, his personal property is taken to pay the business debts
- There is lack of continuity in case the owner falls sick or if he dies.
- There is limited management ability since all activities are performed by one person

2. **Partnership business:** A partnership refers to a business unit formed with a minimum of **two** members and a maximum of **twenty members or fifty** in case of professional who pool their resources together with a view making a business in order to make profits.

Advantages of a partnership:

- Raises for more capital than sole proprietorship since there are more than two members.
- The burden of losses is distributed to all partners or members unlike in sole proprietorship
- Gives room for specialisation i.e. work is divided among the partners which increases the load for each unlike under sole proprietorship where all work is done by one person.
- Formation is fairly is simple since there are no legal requirements needed except registration of the business name, unlike in a joint stock company which involves many formalities.
- Gives room for the continuity i.e. the business may not easily collapse in case of absence of a hardworking partner unlike under the sole proprietorship where the business ends with the demise of the owner.
- Better decisions are made because of consultation amongst the partners unlike under sole proprietorship where all decisions made by one person.
- Partnerships give room for flexibility unlike joint stock companies.

3. **Joint stock companies.** These are companies made up of a number of people who are called shareholders who come together and contribute capital through buying shares.

There are two types of joint stock companies namely;

- Private limited Liability company
- Public limited Liability company

Private limited Liability Company: This refers to joint stock Company which is formed with a minimum of **two** members and a maximum of **fifty (50)** members who pool their capital and management resources together with the aim of making profits.

NB: These are not allowed to advertise the shares to the public.

Advantages of private limited liability companies:

- A private company is free from legal restrictions which apply to the public limited liability companies.
- It can attract capital easily from the selected investing members because limited liability unlike sole proprietorship and partnerships.
- Economies of scale are easily reaped as a result of large scale operation and lump sum capital stock
- Specialisation is possible since duties can be allocated according to the ability of each member.

- The promoters of a private company usually keep control of their business by holding majority of the shares, unlike in the case of the public company where directors are the ones to take decisions and run the business activities.

Disadvantages of private limited liability companies:

- It cannot appeal to the general public to buy shares as in the case of public companies.
- Shares of private companies are not easily transferable and this may be a disincentive to speculative investors.
- Total membership is restricted in number hence the expected capital structure is limited.
- The principle benefits of large scale activities are limited compared to public limited liability companies.

Public limited Liability Company: This is a joint stock company that is formed with a minimum of **seven** members but with **no maximum number** of shareholders who have pool their resources together to run a business with a view of making profits.

NB: The Company is allowed to advertise its shares calling upon the public to buy the shares.\

For a Public limited Liability company to be allowed to start a business it must register with a registrar of companies after fulfilling all the requirements e.g. presenting;

- Memorandum of association
- Lists of directors
- Articles of association
- Prospectus, this advertises a public limited company.

Members in a company contribute shares towards the capital of the business. Whoever buys a share become a **shareholder** and therefore one of the owners of the company. The shareholder is entitled to share the profits at the end of a trading period and this profit is called **dividends**.

NOTE; A share is a unit of capital contributed by the shareholders.

Stock exchange is a market where already issued shares and stocks are bought and sold.

ADVANTAGES OF PUBLIC LIMITED LIABILITY COMPANIES

- There is limited liability. The financial collapse of the company does not affect the financial status of its shareholders
- Bigger capital is raised through selling shares to the public.
- Shares are freely transferable
- Employees are allowed to buy shares in the company; this motivates them to work hard.
- Companies are able to hire relevant qualified staff using the large capital at their disposal
- Risks and losses are spread over a bigger number of shareholders than a partnership and sole proprietorship.
- Companies have continued existence since they are not affected by the death of any shareholder.

DISADVANTAGES OF PUBLIC LIMITED LIABILITY COMPANIES:

- There is lack of direct control by the shareholders in the day today activities of the business.

- Only a few shareholders take up the executive posts to run the business on behalf of the others.
- Formation of the company has a long and expensive procedure.
- Since all the decisions are taken up by the directors, decision making may be slow and sometimes expensive.
- Profits are shared among many shareholders which reduces the amount received by each member.
- The Directors may sometimes have their interests that conflict with the interests of the company.

Sub-Topic 2: THE THEORY OF A FIRM:

A FIRM: This production unit under unified control and management which employs the factors of production to produce goods and services with the purpose of making profits.

AN INDUSTRY: This is a collection or group of firms producing similar or related goods.

Major decisions of a Firm:

The decision is always concerned with the level of output that is in both the short run and long run. It is also concerned with the decision to enter or exit the industry.

The major decisions include;

- The choice of products to produce (what to produce)
- Quantities of output to produce (how much to produce) as determined by the market.
- Choice of techniques to use (how to produce) i.e. labour, or capital intensive
- The mix of productive inputs to use i.e. (how much of each input or factors of production to employ). This will be determined by the choice of techniques or level of output selected.
- The price to charge for products. Since the output consumers are willing to buy depends on the price of the products or services.
- The selection of industry/nature of the industry.

GOALS OR OBJECTIVES OF A FIRM

An objective of a firm is the reason why a firm exists or is why a firm is established.

The following are some of the objectives the firm may have.

- **To maximize profits;** i.e. to get as much profit as possible. Such a firm restricts output in order to charge high prices.
- **To maximize sales;** such a firm focus on increasing the turn over or to sell goods as much as they can without focusing so much on profit per unit sold.
- **To maximize social welfare;** i.e. this is common with publically owned firms that aim at social welfare maximisation by promoting national interests like creation of employment opportunities, balanced regional development, national security all these cannot be pursued by a profit maximising firm.
- **To have the biggest market share,** i.e. some firms aim at dominating others in the market through intensive advertising, modest pricing to outcompete rival firms.
- **To limit entry of other firms;** Some firms may be interested in preventing entry of new firms into the industry. This can be done through “limit pricing”, i.e. setting deliberately low prices in order to drive rival firms out of production.

- **For prestige purposes/ maintaining good image.** Some firms aim at promoting a good public image and prestige of the owners. Such firms are maintained regardless of whether they are making profits or not.
- **To maximise output.** Some firms may be aiming at enjoying economies of scale especially in the long run by expanding the scale of production.

FACTORS THAT INFLUENCE THE LONG TERM DECISION OF A FIRM:

- **The internal organisation of the firm:** Good internal organisation leads to quicker decision making regarding the firm's operations. On the other hand poor internal organisation delays decision making which negatively affects the long-term plans of the firms.
- **The external environment in which the firm operates:** Favourable external environment such as presence of land for expansion, expanding market, creates an opportunity for the firm to decide to expand in the long run. On the other hand unfavourable external environment such as limited land for expansion, inadequate market discourages the firm's decision to expand in the long run.
- **The prevailing price levels for the firm's products:** Lucrative prices for the firm's products motivates the firm to decide to expand the scale of production in the long run due to the prospects of earning high profits. On the other hand declining prices for the firm's products discourages the firm to decide to expand the scale of production in the long run due to the prospects of low profits.
- **The size of the market:** An expanding market motivates the firm to decide to expand the scale of production in the long run due to prospects of maximising sales and thus earning more profits. On the other hand declining market discourages the firm's decision to expand the scale of production; this is due to reducing profitability of doing business.
- **Government investment policies:** Favourable government investment policies such as provision of subsidies, tax rebates, tax holiday, improving infrastructure motivates the firm to decide to continue in production and also expand the scale of production in the long run due to the reducing cost of doing business. On the other hand unfavourable government policies concerning investment such as high corporation taxes, increasing taxes on the firm's products, declining state of infrastructure discourages the firm to decide to remain in business or to expand the scale of production due to the high cost of production.
- **Degree of freedom of entry of new firms into the industry.** High degree of freedom of entry into the industry discourages the firm's decision to decide to expand the scale of production; this is so because the market is shared with other competitors since there is a possibility of remaining with unsold output thus wastage. On the other hand restricted entry into the industry motivates the firm to decide to remain in business and also to expand the scale of production due to the readily available market.
- **Level of profits:** An increasing profit level for the firm's products motivates such a firm to decide to remain in business and also to expand the scale of production in the long run. On the other hand declining profit level for the firm's products discourages such a firm to decide to remain in business and also to expand the scale of production.

THE SIZE OF THE FIRM:

These variables are also the factors determining the size of the firm. These include:

- **The quantity of inputs.** I.e. the amount of raw material used, the labour force employed, capital and technology, etc. the greater the quantity of inputs, the larger the size of the firm and the smaller the quantity of inputs the smaller the size of the firm.

- **Level of profits;** it can also be described in terms of yearly profits made by the firm. Profits are important because they help the firm to expand and grow into a large one while low profits make it hard for a firm to expand hence remaining small.
- **Size of the market.** The firm's size is also determined by the extent of the market for its products and ability to which it can exert control over that market. A firm which has command over a large market is considered to be large and a firm with a small market is considered a small one.
- **Type of management.** Large firms are able to hire specialized labour for the purpose of ensuring efficient management unlike for small firms which cannot afford to hire specialized labour.
- **Financial position.** With respect to size of capital and access to financial institutions i.e. large firms stand an opportunity of getting financial assistance from banks for expansion. So, the stronger the financial position the bigger the size of the firm and the weaker the financial position the smaller the size of the firm.
- **Possibility of research.** Small firms have inadequate funds to carry out research for the purpose of improving their methods of production and the quality of the products, i.e. inventions and innovations unlike large firms which are in position to carry out research.
- **Economies of scale.** The economies of scale enjoyed by the firm are among the major determinants of the size of the firm because, these are advantages that accrue to the firms as a result of operating on a large scale which advantages cannot be enjoyed by a small firm.
- **Government influence.** Large firms are known to identify themselves with government. The government cooperates and encourages such firms by giving them assistance unlike small firms which do not get assistance from the government.
- **Possibility of merging.** Where two or more firms can come together (merging) they can form a large firm but in situations where firms remain in is

PRODUCTION FUNCTION (INPUT-OUTPUT RELATIONSHIP):

A production function represents a functional relationship between quantities of various inputs used and the maximum output that may be produced.

It can be a graph, table or an equation.

It is a schedule showing the amount of output that can be produced from specific combinations of factor inputs f technology.

It is expressed mathematically as:

Where Q stands for the output of goods and services per unit of time and L, K, N, E stands for the various inputs used in the production process i.e. land, capital, labour and entrepreneur respectively.

An illustration of a production function:



NB: A simple production function is written as $Q = f(L, K)$ where L stands for Labour inputs which represent all variable inputs and K stands for capital inputs which represents all fixed inputs of production e.g. land, buildings, machinery.

The production function is affected by the following factors which would lead to shifts in the production function either inwards or outwards.

- State of technology
- The quantity of factor inputs used.
- The size of the firm.
- The nature of the firm organisation.
- The relative prices of the factor inputs.

THE PRODUCTION PERIODS OF A FIRM:

- **Short run:** This is a time period which is so short that a firm cannot increase its production capacity by varying its fixed factors e.g. building. They can only increase the output by varying the quantities of variable factors e.g. labour, raw materials etc.
- **Long run:** This is a time period which is long enough for the firm to increase its production capacity by varying all factors of production i.e. all fixed and variable factors. In this production period all factors of production are variable except the level of technology which remains constant.
- **The very long run:** This is a time period long enough for the firm to change its level of technology i.e. a firm will be in position to conduct research on technology improvement which would lead to better techniques of production and better quality products.

THE PRODUCT CONCEPT: A product refers to a good or service produced for the purpose of consumption and it is useful in the analysis of the production function.

CONCEPTS USED IN CONNECTION TO THE PRODUCTION FUNCTION:

1. THE TOTAL PRODUCT (TP): This refers to the total output obtained from employing a given number of units of the variable factor of production

An illustration of the total product curve:

In the illustration above, point **R** is the point of maximum technical efficiency of a variable factor with a fixed factor.

- AVERAGE PRODUCT (AP):** This refers to the output per unit of the variable factor /input employed.
It is obtained by dividing the total output by the units of the variable factors employed.

TP

$$AP = \frac{TP}{\text{Number of workers}}$$

It shows on average how much output each worker produces.
AP rises as labour is expanded to a particular level then diminishes with more labour employed.

An illustration of the Average Product Curve:

3. MARGINAL PRODUCT (MP): This refers to the additional product or output resulting from employing an extra unit of a variable factor. e.g.Labour.

$$MP = \frac{\Delta TP}{\Delta L \text{ (Units of the variable factor)}}$$

An illustration of the Marginal product Curve:

Units of fixed factor	Units of variable factor	Total product TP(tonnes)	Average product (AP)	Marginal Product (MP)
100	0	0		
100	1	5	5	5
100	2	12	6	7
100	3	21	7	9
100	4	32	8	11
100	5	40	8	8
100	6	45	7.5	5
100	7	49	7	4
100	8	52	6.5	3
100	9	52	5.7	0
100	10	48	4.8	-4

An illustration of relationship between TP, AP and MP.

Observations:

- When total product is at maximum, MP is equal to zero, when TP starts declining the MP becomes negative.
- when AP is increasing the MP is greater than the AP and when AP is decreasing the MP is less than AP and AP is equal to the MP when AP is at its maximum.

THE LAW OF DIMINISHING RETURNS /THE LAW OF VARIABLE PROPORTIONS:

The law of variable factor proportions states that ‘ As more and more units of a variable factor are applied to a given quantity of a fixed factor, the marginal product or output first rises, reaches a maximum point and then diminishes’.

Assumption of law:

The law is based on the following assumptions:-

- It assumes existence of a fixed factor e.g. land.
- It assumes existence of a variable factor e.g. labour
- The technology is constant
- All units of the variable factor are homogenous/ equally divisible into smaller units/equally efficient.
- It assumes constant factor prices e.g. constant wages, constant rent etc.
- It assumes a short run period.

Note: As the variable factor is increased, the following stages are observed as illustrated below.

The explanation of the stages illustrated in the above graph is as follows:

Stage I. The stage of increasing returns.

At this stage, the TP, AP and MP are all increasing i.e. the application of an additional unit of a variable factor leads to more than proportionate increase in output. This is an indication of increasing efficiency of the factor combination (the fixed factor is in excess of the variable factor).

Stage II. Stage of diminishing returns.

At this stage TP is increasing at a decreasing rate, MP is falling, but is positive, the application of extra units of a variable factor leads to a less than proportionate increase in output (AP reaches maximum and starts declining). TP continues increasing and reaches a maximum at point where $MP = 0$.

At this stage both variable and fixed factors are now effectively utilised, the fixed factor is no longer in excess hence more and more units of the variable factor are employed to get a larger output, this is the most profitable stage for the firm to operate in.

Stage III. Stage of negative returns.

At this stage TP starts declining and MP becomes negative. This is because the fixed factor is over utilised while the variable factor is under utilised, so profitable production cannot take place at this stage. The point at which AP is at maximum is the Optimum level of production.

WHY DOES THE LAW ARISE:

- **Due to the varying proportions in which the factor inputs are combined i.e. fixed factor decreases in proportion to the variable factor.**
- **The scarcity of factors of production i.e. factors of production are limited in supply.**
- **Imperfect substitution of factors of production.** Factors are not perfect substitutes, if they were, then it would be possible to transform labour into land when land becomes limited and therefore overcome the law.

NB: The diminishing returns can be overcome by combining the factors of production in the right proportions.

IMPORTANCE OF THE LAW OF VARIABLE PROPORTIONS:

- It makes producers aware of the existence of the optimum level of production in production i.e. the point where maximum output is obtained by combining certain quantity of variable factor inputs with the quantity of the fixed factor.
- It is an indication to producers that infinity quantities of output should not be expected simply by increasing the units of the variable factor.
- The law is of practical relevancy to developing countries like Uganda which is relying excessively on Agriculture i.e. increasing population pressure on land (a fixed factor) would lead to a decline in the productivity of land and the marginal productivity of labour.
- The law forms the basis of the Malthusian theory of population which assists in analysing the controversies of the theory i.e. the inability of man to match food production with the population growth is due to the operation of the law of diminishing returns in Agriculture.

THE LAW OF RETURNS TO SCALE: This law states that, 'When there are proportionate changes in the amount of input, the amount of output also changes.'

RETURNS TO SCALE : This refers to rate at which output changes when factor inputs are changed.

There are three categories of returns to scale namely;

Increasing returns to scale. This is one where output increases but by a greater margin compared to the increase in factor input. E.g. if workers are increased by 10% and the producer's output increases by 50%.

Constant return to scale. This is one where the change in the factor combination brings about an equal change in output produced. E.g. if workers are increased by 10% and the output also increases by 10%.

Decreasing returns to scale. This is one where output increases but by a lower margin compared to the increase in the factor inputs .e.g. if labour is increased by 50% and the output increases by only 10%.

LOCATION AND LOCALISATION OF INDUSTRIES:

Location of a firm refers to a place or a site where a firm is situated/ established/set up.

FACTORS LEADING TO LOCATION OF A FIRM(S):

- **Presence of Market.** Most firms which produce products that gain weight after production and those which are perishable are located close to market to minimize costs of transportation

- **Presence of raw materials.** Firms that use bulky raw materials which are costly to transport are located near the source of raw materials e.g. Tororo and Hima cement factory.
- **Closeness to the source of power.** Entrepreneurs tend to locate their industries near the source of reliable power supply.
- **Presence of means of transport.** Locating an industry near a source of transport is important because it makes it easy to transport raw materials and finished goods.
- **Presence of cheap labour with relevant skills.** This reduces the labour costs and therefore most industries locate near the cheap labour supply.
- **Presence of clean water supply.** This is necessary for heavy industries, which require a lot of water for industrial processes and water for dumping wastes.
- **Presence of a stable political atmosphere.** A stable political climate attracts many entrepreneur hence location of firms.
- **Presence of auxiliary services.** Firms tend to be attracted near or in areas where services like banking, insurance, warehousing, advertising media are well developed, these facilitate the production process.
- **Industrial inertia:** New firms tend to be attracted to areas where there is only high concentration of other firms, this because of the established infrastructure, existence of a pool of skilled labour and presence of other significant location factors.
- **Favourable government policy on location of firms.** Favourable government policy in term of incentives such as provision of subsidies, developed infrastructure in a given area attract firms to be located there due to low production costs.

Reasons for influencing the location of an industry by the government:

- To encourage the exploitation of some resources.
- To create more employment opportunities
- To facilitate fair distribution of incomes
- To minimise the adverse effects of localisation
- To ensure balanced regional development
- To control monopoly tendencies
- To avoid unnecessary duplication and wastes
- To fulfill political obligations.
- For strategic reasons.

TERMS RELATED TO LOCATION OF INDUSTRIES:

- **Foot loose industry:** This is an Industry that can be located anywhere regardless of the factors that affect its location such as presence of raw materials, presence of market etc.
- **Rooted Industry:** This is an industry located in a particular area because of a given pool or location factors. E.g. located near the source of raw materials or near the source of market e.g. cement firms are established near the source of raw material which is limestone. Whereas furniture workshops are established in urban areas which are the source of the market for the furniture made.
- **Industrial Inertia:** This is the tendency of an industry to locate or continue surviving in an area where other industries exist even when factors that led to location of industries there no longer apply.

LOCALISATION OF AN INDUSTRY: This is the **concentration** of firms producing related products in order to reap or enjoy external economies of scale/advantages of the location.

ADVANTAGES OF LOCALISATION:

- Facilitates infrastructural development in the area, this is so because there are many firms in one area which compels the government to develop infrastructures such as roads, railway lines, communication network etc in the area in order to ease the production process by the investors.
- Leads to creation of more employment opportunities in the area. This is because of the large number of firms in such an area which creates more jobs. This enables the employed people to earn incomes thus improving their standards of living.
- Leads to cooperation of the industries in solving common problems. This is done by pooling resources to solve problems like insecurity in the area.
- Leads to development of a pool of skilled labour. People in such an area are willing and interested in learning the skills needed in the localised industry. Over time they become specialised and employable in the industry.
- Leads to development of organised markets/expansion of markets for products. This is so because firms are in one area which attracts potential buyers for their products making marketing easy.
- Leads to a wide variety of goods produced in the area. This is so because there many firms producing different products hence widening the consumer's choice.
- Encourages forwards forward and backward linkages. Some firms are attracted in the area to either supply raw materials or to provide market to the already existing firms.
- Promotes development of auxiliary services such as insurance, banking, warehousing in the area. These attracted to facilitate the production and marketing services.
- Leads to increased utilisation of the would be idle resources. This is because of the many firms in the area that make use of the available resources.
- Promotes specialisation and its advantages. There is specialisation by commodity and by process in the localised industries. This leads to production of a variety of products, increased output, better quality products etc.
- Leads to low prices of final products. This is due to the reduced costs in terms of acquisition of raw materials, marketing, by the different firms.

- Leads to increased government revenue through taxation. This is through the taxes imposed on the products produced by the different firms, the incomes of the employees and the profits made by the localised firms.
- Leads to increased reputation/popularity of the area. The place where the industry is localised gains popularity as so are the products manufactured in that area. More investors are attracted to set up firms leading to production of more goods and services in that area.
- Leads to increased quality of output due to competition. This is because of the many firms in the area which strive to produce to produce better quality goods so as to secure market.
- Leads to increased output. This because of the many firms in the localised area which lead to production of high volume of goods thus accelerating the economic growth rate.
- Leads to increased security of the area (National interest). The government is awakened to take care of people's lives and their property in the localised area by ensuring security.

Demerits of localisation:

- Leads to regional imbalance in development. Localisation of industries concentrates production in one area or a particular part of the country, this result into some areas developing more than others.
- Results into rural urban migration and its negative consequences. The localised areas attract many people from other areas with hope of acquiring employment opportunities, unfortunately majority of such people fail to secure the jobs, this results into congestion in towns, urban unemployment.
- Overstrains infrastructures in the area. Social facilities like health centers, housing, communication, power and water supply are overstrained due to the rising population in that localised area. This increases government expenditure as she strives to increase provision of such services.
- Leads to the problem of income inequality. People who are employed in the localised industries earn more incomes than their counterparts in other areas.
- Leads to quick depletion of resources in an area. There is over exploitation of the resources in the localised areas by the many firms this leads to their quick depletion.
- Leads to increased cost of land /High rent rates. This is due to the stiff competition for land by the many firms, this leads high rent rates thus high cost of production.
- Leads to environmental degradation/pollution in the area. Localisation of industries causes excessive pollution of air and water due to industrial wastes and emissions from the manufacturing plants. This puts people's lives and the environment in danger.
- The economy becomes dependent on a particular area which is risky. This leads to heavy losses to the economy in the event of a catastrophe in the area.
- Displacement of people making many landless. Many industrial investors are forced to encroach on land meant for settlement purposes in order to expand their industrial activities.
- Leads to increased cost of labour. This is due to the stiff competition for the skilled labour force by the many firms, this leads to high cost of production.
- Leads to rising cost of living in the area. This is because of the increased demand for goods and services by the many people which leads to their increased prices.

DELOCALISATION: This is a deliberate act by government of distributing industries evenly throughout the country to avoid concentration of industrial establishments in one area.

Advantages of delocalisation:

- Creation of even employment opportunities.
- It reduces the problem of rural urban migration and its associated evils.
- It leads to even development of all regions of a country.
- Facilitates the development of infrastructure more evenly throughout the country.

THE SURVIVAL OF SMALL SCALE FIRMS ALONG SIDE LARGE SCALE FIRMS:

Despite the advantages enjoyed by large-scale firms, some firms continue to operate on a small scale basis for reasons being:

- **They are beginner/new firm.** Some of the small-scale firms are still at their stage of infancy with limited experience; hence prefer to remain small despite the advantages enjoyed by large-scale firms.
- **Fear of increased taxes.** Small-scale firms fear increased taxation associated with large-scale production; hence continue to remain small despite the advantages enjoyed by large-scale firms.
- **Limited capital for expansion/ they are cheap to start.** They have limited capital for expansion and thus continue to remain small despite the advantages enjoyed by large-scale firms.
- **They are experimental/ pilot projects.** Some of the firms are experimental units or pilot projects used for research purposes, and the aim is not profit maximization.

Limited managerial skills required i.e. small-scale firms are easy to manage and control, unlike large scale firms.

- **Limited supply of raw materials.** Limited supply or sources of raw material which do not promote production on large-scale.
- **Fear of diseconomies of scale/fear of high risks associated with large scale firms.** Some firms fear diseconomies of scale that are associated with large-scale firms for example, managerial and financial diseconomies of scale.
- **Production according to special order.** Production of firm's output being on special order thus not necessitating large-scale operation.
- **Market requiring personal touch/personal service.** Some firms provide services based on keen interest and personal attention to their customers e.g. beauty salons, clinics, law firms etc. such firms will remain small in order to meet the different needs of the customers.
- **They are flexible/ Allows for flexibility.** Small-scale firms allow easy flexibility in production compared to large-scale production.
- **Poor infrastructure,** for example poor road network, limited power supply etc which do not promote production on large-scale.
- **Poor techniques of production.** The use of poor techniques of production limit on large scale by such firms thus making it hard for them to expand the scale of production
- Government policy of encouraging small-scale firms through tax incentives, subsidies etc.
- **The small size of the market/ Limited market size.** Firm which have got a narrow market for their products would not find it worthwhile to expand their size therefore they remain small despite the advantages of their large scale production
 - **Limited labour skills.** Small firms cannot afford to hire skilled labour which is needed to expand the scale of production.

- **Limited entrepreneurial ability.** Hinders small firms from expanding because of inadequate skills hence the existence of small firms despite the advantages of large scale production
 - **Fear to lose independence.** Some firms remain small because of fear to lose independence as the firm expands.
 - **Poor land tenure.** The poor distribution and unfair ownership of land limit the expansion of scale of production; this is because of the difficulty in accessing land.
 - **Objective/ choice of the entrepreneur.** Some entrepreneur keep their firm small because it is their objective.
- Fear to lose independence.** Some firms remain small because of fear to lose independence as the firm expands.

THE GROWTH OF A FIRM

The growth of a firm means the expansion of the production capacity of the firm.

Most firms begin as small scale firms and others as infant firms and the infant firms expand and mature with time.

NB:

An Infant Firm is a newly established firm or it's a firm that has **just** been established.

A firm can grow in two ways.

1. Natural / Internal Growth.

This is when the firm expands in size when the internal factors become favorable e.g. when the capital of the firm increases, when the sales increase, when profits increase.

2. Amalgamation/ Combination/ Merging

This is when two or more firms come together to form a bigger firm and thereby enjoy better or greater economies of scale.

Firms may combine in different forms or ways and the common ones include.

- a) **Complete Amalgamation/ Consolidation;** this involves dissolution of all companies intending to amalgamate and then there is creation of a new company to take over their businesses.
- b) **Absorption;** this form of combination takes place when one company takes over the business of another company or companies. Here one company retains its entity.
- c) **Holding Company;** under this arrangement, the various companies entering into combination retain their entities while one of them acquires controlling shares i.e. 51% or more. The companies controlling the other companies would then be called the holding company while the others would be called subsidiary companies.

- d) **Mergers**; firms or industries are said to merge if and when they pool their assets and operate jointly as one production unit. This is where two or more firms come together to form one big firm.

FACTORS THAT DETERMINE THE GROWTH OF A FIRM

Some firms are bigger than others or some firms grow faster than others because of the factors affecting the growth of the firm and such factors include the following:

- 1) **The size of the market.** A firm with a big size of the market grows at a faster rate than the firm with a small size of the market since it sells out very little output.
- 2) **Availability of finance (funds).** A firm grows faster when it has adequate finances to purchase inputs whereas inadequate finances limit the growth of the firm.
- 3) **Level of technology used.** Firms that use good and efficient technology grow faster because of the increased output, whereas poor technology makes it difficult for the firm to grow.
- 4) **Availability of land for expansion.** Firms with adequate land for expansion grow faster because they have the room for expansion whereas firms with limited land for expansion find it difficult to expand and grow.
- 5) **Supply of raw materials.** Constant supply of raw materials enhances the growth of a firm because it makes production constant whereas inadequate supply of raw materials limit the growth of the firm since production is not continuous.
- 6) **Level of taxation and subsidization.** High taxes limit the growth of the firm because they increase the cost of production which reduces profits of the firm. Whereas subsidisation of the firms enhances the growth of the firms because they reduce the cost of production which increases their profits.
- 7) **Availability of skilled labour.** Presence of skilled labour in the firm increases the chances of growth because of the increased labour productivity whereas employing unskilled workers makes it very difficult for the firms to grow because of low labour productivity.
- 8) **Entrepreneurial ability.** High entrepreneurial ability leads to the growth of the firm of the increased inventions and innovations by the entrepreneur. Whereas limited entrepreneurial ability limits the growth of the firm because of low levels of inventions and innovations.
- 9) **The state of infrastructure.** A well developed infrastructure such as good roads, presence of power facilities lead to the growth of the firm because they facilitate the production of more goods and services. Whereas poor state of infrastructure limits the production of more goods and services thus limiting the growth of the firms.
- 10) **Political atmosphere.** Firms grow faster when there is political stability because of increased production since producers are not scared of losing their lives and property. Whereas political instability limits the growth of firms since producers are scared of losing their lives and property.
- 11) **Possibility of merging.** Where there is possibility of merging of firms, it enables to expand because they are joined with other firms. However where there is no possibility of merging of firms its limits its expansion because the limited resources.

TYPES OF MERGING:

1. **HORIZONTAL MERGING;** this is the union or combination of two or more firms in the same industry/producing similar or related goods at the same stage/ level of production. E.g. Airtel joining with Warid telecom
2. **VERTICAL MERGING;** this is where two or more firms at different stages of production but producing related or similar goods come together to form one big firm. E.g. when a tea growing firm combines with a tea processing firm. When the merging is towards the source of raw materials, it is called BACKWARD VERTICAL MERGER. But when the combination is towards the market outlet then it is known as FORWARD VERTICAL MERGER.

3. **CONGLOMERATE MERGING**; this is when two or more firms dealing/ producing completely unrelated commodities come together for the purpose of achieving diversification of activities. e.g. a shoe making firm joining with a bread making firm to form one big firm.
4. **LATERAL MERGING**; this is the bringing together assets of two or more firms producing related commodities but not competing and can be conveniently market together e.g. shoes and shoe polish making firms.

CONDITIONS NECESSARY FOR THE SUCCESS OF LATERAL INTEGRATION OF FIRMS.

- The firms have to be of almost of equal size
- Production of related/complementary goods
- Firms should have the same capital base
- Firms should have related objectives.

REASONS WHY FIRMS MERGE:

- To reduce the cost of production because merging reduces advertising costs due to reduced competition.
- To encourage efficiency/Improve the quality of output
- To attain monopoly power/ To control the market
- To effectively exploit the available resources
- To minimise unnecessary duplication and wastage.
- To enjoy economies of scale e.g. increase output.

ADVANTAGES OF MERGING:

- It reduces the cost of advertising.
- It leads to increased resource utilization because the firm uses more resources because of increased output.
- It reduces competition for the market/ Widens the market
- It eliminates duplication of products.
- It leads to increased accessibility to skilled labour.
- It increases the firms' accessibility to capital /loans because the big firms find it easy to borrow from financial institutions.
- It improves the management of the firm because the big firm is able to employ specialised managers to manage the different departments (the firm enjoys managerial economies of scale)
- It leads to access to technology since the firm is in position to finance the research into better methods of production.
- It enables the firm the firm to spread risks because a big firm is able to buy insurance policies in order to guard against risks.
- It improves the efficiency of the firm or it enables the firm to make more profits because improved technology and better management of the firm
- It leads to output/profits/sales.
- Reduces stiff competition for the raw materials.

DISADVANTAGES OF MERGING OF FIRMS:

- It leads to monopoly power since after merging a firm remains alone in the market and such a firm charges high prices.
- It leads to unemployment because when firms merge, some workers are laid off.
- Management problems arise because the firm is now big and complex which makes the coordination of managers difficult.
- There is loss of independence/identity of small firms because they surrender their power to the bigger firms in the merger.
- May lead to over production and this leads to resource wastage.
- High taxes are imposed on bigger firms which come up as a result of integration.
- Leads to over utilisation/ over exploitation of resources leading to their quick depletion.

LIMITATIONS TO MERGING OF FIRMS:

- Fear of losing jobs because some mergers displace some workers.
- Fear to lose contacts with customers
- Fear of managerial problems which are associated with big firms.
- In some cases the government discourages merging through anti-monopoly laws so as to discourage development of monopoly powers.
- Fear of losing independence, therefore firms would rather remain small but when they are independent.
- Fear of paying high taxes because the government imposes high taxes on big firms.
- Some firms fear heavy losses in case a misfortune befalls a firm.

Sub-Topic 3: THE THEORY OF COSTS:

Costs are expenses of the firm that are incurred to produce a given amount of output.

They are total payments for the factor inputs or what the firm incurs in the production process.

Classification of costs:

- **Money costs.** These are the monetary costs incurred in the production process e.g. wages, salaries, cost of raw materials, capital equipment.
- **Real/Social costs.** These are the **sacrifices** that have to be met by any society in the course of production process. In other words they are non- monetary costs.
- **Explicit.** These are the expenses incurred by the firm on factors of production which are hired and are included in the calculation of profits and losses of a firm. e.g. cost on hired premises, transport, cost of raw materials etc.
- **Implicit costs.** These are costs on self-owned factors of production and such costs are not included in the calculation of profits and losses of a firm. E.g. a businessman using his own premises.

- **Total Fixed costs :(TFC)** These are costs incurred by a firm which **do not vary with the level of output** i.e. it is even incurred at zero output. E.g. interest on capital, rent for buildings, insurance costs. Fixed costs are also known as overhead costs, unavoidable costs, indirect costs, supplementary costs, sunk costs, indispensable costs.
TFC= TC - TVC
- **Total Variable costs.(TVC)** These are costs that **vary with the level of output** i.e. the larger the output the higher the level of variable costs. E.g. wages, expenses on raw materials, power, maintenance etc. they are also known as prime costs, direct costs, operating, running costs. Unlike the fixed costs it's quite possible to decrease or increase variable costs even in the short run.
TVC= TC -TFC
- **Total cost.(TC)** This refers to the sum of a firm's fixed and variable costs in the production of a particular level of output.

$$TC = TVC + TFC.$$

An illustration of the Fixed cost, Variable cost and the Total cost curves.

From the diagram above total cost is a summation of TFC and TVC.
TC does not begin at zero because the total costs include the TFC even at zero output.

VARIATIONS OF COSTS IN THE SHORT RUN (SR):

The cost function is described in terms of per unit cost curves i.e. it explains the cost output analysis and they include.

- Average fixed cost curve (**AFC**)
- Average variable cost curve (**AVC**)
- The average cost curve (**AC**)
- The marginal cost curve (**MC**)

1. AVERAGE FIXED COST (AFC). This refers to the total fixed cost incurred by the firm per unit of output produced.

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$$\text{AFC} = \frac{\text{TFC}}{\text{Q}}$$

An illustration of The Average Fixed cost Curve:

The AFC is downward sloping and is never zero. This implies that the curve never touches any axis.

2. AVERAGE VARIABLE COST (AVC): This refers to the total variable costs incurred by the firm per unit of output produced.

$$\text{AVC} = \frac{\text{TVC}}{\text{Q}}$$

An illustration of the Average Variable Cost Curve.

The AVC curve is U-shaped. At low levels of output the AVC is high but it decreases as output increases from zero up to optimum capacity because of internal economies of scale and when the firm starts to produce beyond the minimum point of the AVC, the diseconomies of scale sets in.

3. AVERAGE TOTAL COST/ AVERAGE COST(ATC/AC). This is the total cost per unit of output produced.

$$AC = \frac{TC}{Q}$$

$$AC = \frac{TC}{Q} = \frac{TFC}{Q} + \frac{TVC}{Q} = AFC + AVC$$

An illustration of the Average Total Cost Curve/Average Cost Curve.

At low level of output AC is high due to high AFC and AVC, however as output increases average cost falls because of the fall in AFC and AVC until it reaches the minimum point. Beyond this point the increase in Average variable cost raises the Average cost/ Average Total cost.

If the firm is producing output that is less than optimum it is said to be operating at **excess capacity i.e.** resources are under utilised implying that the firm can increase the level of its output at a decreasing cost and if the firm is producing beyond its optimum it is said to be operating above the optimum capacity i.e. it can increase its level of output at an increasing cost

MARGINAL COST (MC). This refers to the Additional costs incurred in the production of an extra unit of output.

An illustration of the Marginal Cost Curve.

The MC curve is U shaped, therefore can never be zero or negative.

A TABLE SHOWING THE RELATIONSHIP BETWEEN ATC, AVC, AFC AND MC IN SR

OUT PUT	TFC	TVC	TC	AFC	AVC	AC	MC
0	180	0	180	-	-	-	-
1	180	152	332	180	152	332	152
2	180	284	464	90	142	232	132
3	180	408	588	60	136	193	124
4	180	504	684	45	126	171	96
5	180	600	780	36	120	156	96
6	180	700	880	30	166	147	112
7	180	812	992	25.7	117	142	112
8	180	948	1128	22.5	118.5	141	136
9	180	1124	1304	20	144.4	145	176
10	180	1344	1524	18	152.4	152	220

An illustration of the relationship between AFC, AVC, AC and MC:

- The first relationship between the three per unit costs is that AC is equal to MC when AC is at minimum and MC is also equal to AVC when AVC is at its minimum. beyond the minimum points of each curve the MC rises faster than each curve
- Secondly MC, AC and AVC curves are all U-shaped
- Lastly before the minimum point of AC, MC is less than AC but after the minimum point of AC the increase in MC is greater than AC.
- AFC falls continuously with increase in output, as it continues to fall; it more than offsets the rise in AVC so that the AC continues to fall. As output continues to increase AVC is not offset by the fall in AFC so which leads to further increase in AC.

THE LONGRUN AVERAGE COST CURVE

The long run has been defined as a time period over which all inputs of the firm can be varied i.e. a period which is long enough for the firm to vary its scale of production. In this period there is a possibility of changing those inputs which were fixed in the short run.

If the firm has failed to remain competitive in an industry, the long run is a period for such a firm to liquidate its plant and leave the industry.

The long run cost curve is described as an envelope curve .i.e. It is a series of short run average cost curves, whereby the short run average cost curves represent an infinite number of plant sizes of different capacities over time (various plant possibilities from which the producer can chose the best.)

An illustration of the long run Average cost Curve.

The long run Average cost curve (LAC) helps to explain the changing cost structures of a firm as it changes its scale of production. Firms are assumed to choose that plant size that minimizes the cost of

producing any level of output, therefore a firm will make use of various plants to increase its output. On the LAC, the minimum point of each firm is the one where SAC is tangent to the LAC.

- During period (i) the firm's short run optimum output is O_1 being produced at costs O_1C_1 as it expands its capacity in period 2, the cost per unit of output falls to O_2 .
- Average cost continues to reduce until it reaches the long run optimum level O_3 beyond these point diseconomies of scale set in causing the average cost to rise.
- The firm produces output O_4 using cost of production O_4C_4 hence a u-shaped LAC curve of the firm.

N.B LAC curve is flatter than the short run average cost curve because in the long run most costs are variable and less are fixed. The firm can adjust and alter its plant and size to utilise the variable resources more effectively therefore both the AFC and AVC will be lower in the long run than the short run.

THE ECONOMIES OF SCALE: This refers to the advantages enjoyed by the firm due to expansion in size or due to large scale production.

Economies of scale are broadly categorized as.

1. Internal economies of scale
2. External economies of scale.

INTERNAL ECONOMIES OF SCALE: These are advantages enjoyed by a firm as it expands due to favourable conditions within the firm.

The major internal economies of scale include.

1. Technical economies. These are advantages that are enjoyed by a firm producing on large scale as it is in position to employ improved methods of production since it has the finances to purchase the technology thus reducing the average cost.

2. Financial economies of scale. These are advantages that are enjoyed by a firm producing on large scale as it is in position to acquire loans from financial institutions at a lower interest rate and at the same time it is able to be given a sizeable amount of the loan since it has the capacity to pay back.

3. Marketing economies of scale. These are advantages enjoyed by a firm producing on large scale since it is in position to buy and sell in bulk, this reduces the average cost of marketing the product.

4. Transport and storage economies of scale. These are advantages enjoyed by a firm producing on large scale since it is able to transport its goods, raw materials and store them at a lower cost

5. Managerial economies of scale. These are advantages enjoyed by a firm producing on large scale since it is in position to employ specialised managers to manage different departments and improve the efficiency of the firm.

6. Social and welfare economies. These are advantages enjoyed by a firm producing on large scale since it has the capacity and means to offer improved welfare to the workers, such as goods housing facilities, medical care which improves their moral and efficiency in production

7. Research economies of scale These are advantages enjoyed by a firm producing on large scale since it has the capacity to undertake research into new products and new production techniques since it has the finances. Research results into increased output and improved quality of products thereby reducing the costs of production.

8. Risk bearing economies of scale These are advantages enjoyed by a firm producing on large scale since it has the capacity to spread the risks by carrying out different activities and selling to different markets.

EXTERNAL ECONOMIES OF SCALE: These are advantages enjoyed by a firm due to the expansion of the industry or due to favourable conditions created for the firm by the industry.

Such advantages include;

1. Sharing the high skilled and specialised labour. It becomes cheaper for them to share that labour with rare skills instead of each firm employing its own.

2. Carrying out joint research. The firms contribute to finance research and share the research findings at low costs.

3. Sharing infrastructure. The firms contribute to finance the construction of good infrastructure which benefit them all e.g. roads.

4. The firms share advertising costs. This helps to the costs of advertising by each individual firm.

5. Welfare economies of scale. The firms are able to improve the welfare of the workers by paying workers competitive wages hence improving the standard of living of the workers.

6. Economies of specialisation. As the industry expands, firms are able to specialise in different aspects and industry as a whole e.g. cotton textile firms can specialise in dyeing, weaving threads etc. This increases efficiency in production.

Other forms of Classification of Economies of scale:

1) Pecuniary (Financial economies of scale). These are advantages of a monetary nature to a large scale firm when it pays a lower cost for a particular level of output.

2) Real economies. These advantages enjoyed by a firm operating on large scale when it uses less factor inputs to produce a particular level of output.

DISECONOMIES OF SCALE: These are disadvantages of large scale production that a firm may experience in form of rising per unit cost of production as output increases either due to internal factors or behaviour of other firms.

Internal diseconomies of scale include the following:

1. Managerial diseconomies of scale. As the firm expands the management of the firm becomes difficult because of bureaucracy since managers of different departments have to make consultations before a decision is made.

3. Technical diseconomies of scale. As a firm expands it becomes very expensive for it to maintain its machines which sometimes lead to a breakdown.

3. Marketing diseconomies of scale. As the firm expands it finds it difficult to acquire adequate market for the products due to over production.

4. Risk bearing diseconomies of Scale. As the firm expands, there is multiplication of risks such as accidents, burglary, fire etc. These increase the average cost of production through increased insurance premium.

An illustration of Economies and Diseconomies of Scale:

Point A is called the optimum point.

Economies of scale reduces the average cost of production while diseconomies of scale increase the average cost of production as illustrated above. The average cost of production continues to fall as the firm expands up to point A.

Point A is referred to as optimum point and a firm producing at point A is called the optimum firm and produces at the lowest cost.

When the firm produces beyond point A the average cost raises hence diseconomies of scale.

EXTERNAL DISECONOMIES: These are disadvantages that accrue to a firm because of activities of other firms in the same industry or activities of other production units in the same locality.

External diseconomies include the following.

1. **Human and traffic congestion.** Since the area is very busy, it has many people and vehicles this makes delays in the delivery of goods to markets and raw materials to the factories
2. **Increases social costs.** Such as pollution because the machines emit dangerous gases which causes ill health to the workers and the people around.
3. It leads to increased costs of inputs because their demand is very high since there are many firms.
4. It leads to increases cost of land as firms compete to acquire more land for expansion.
5. It leads increased cost of labour as the firms compete for the available skilled labour force.

Sub- Topic 4: THE THEORY OF REVENUE:

Revenue refers to the amount of money that the firm receives from the sale of its output at various prices.

TYPES OF REVENUE:

The different types of revenue include the following:

1. **Total Revenue (TR).** This refers to the total receipts of a firm from the sales of its output at a given price.

(Output/quantity).

Or

3. Average Revenue (AR). This is the total revenue per unit of output sold by the firm

Average revenue is the price of the commodity at each level of output

But since the demand curve relates price to output and given that price and average revenue are the same, the AR curve therefore is also the demand curve of a firm ($AR = DD$)

Revenue resulting from the sale of an additional unit of output

RELATIONSHIP BETWEEN AR AND MR :

The shape and relationship between AR and MR depends on the market structure.

1. Under perfect competition ($AR = MR$) since there are many firms and no individual seller is in position to influence the price of a commodity. The firm can sell whatever amount of output it produces at the same price therefore both AR and MR remain constant for all levels of output. The AR curve is perfectly elastic.

An illustration of the Average Revenue(AR) Curve.

2. Under imperfect competition (Monopolistic competition, Oligopoly and Monopoly), the AR curve is downward sloping and above the MR, this is because the firm can only sell more of a commodity by lowering the price, this lowers the MR which falls faster than the AR.

An illustration of the AR curve and the MR curve under imperfect markets.

THE CONCEPT OF PROFIT

Profit is a monetary reward to the entrepreneur for his contribution in the production process.

OR: It refers to the earnings of the firm in excess of total cost or total expenditure.

It is the difference between the sales of a business and its costs of sale.

Profits =total revenue (TR)-total cost (TC)

OR: $TR - TC$ (TC)

TYPES OF PROFITS:

- **Supernormal/Abnormal profits/ Pure profits.** This refers to the excess earnings to a firm/ entrepreneur over and above the normal profits/ total costs /break even point that induces new firms to join the industry.

OR: These are earnings where total revenue is greater than total costs and is sufficient enough to attract other firms into the industry.
- **Normal profits/Zero profits.** These are earnings/ rewards to an entrepreneur(s) or a firm/ firms that just sufficient/ enough to cover total costs or keep him/ it in production without inducing other firms to join the industry.
OR: These are profits earned where average revenue is equal to average cost and they do not induce other firms to join the industry.
- **ECONOMIC PROFITS:** These are earnings measured or derived by getting the difference between revenue and the opportunity cost of factors of production used in production of output sold by the firm.
OR: The difference between revenue got by a firm and what it would have got in the second best alternative use/employment.
- **SUBNORMAL PROFITS/LOSSES.** This is where the average cost of a firm is greater than the average revenue.
OR. It is the profit whose persistent over time makes the entrepreneur to quit the industry

DETERMINANTS OF THE LEVEL OF PROFITS:

- **Size of the market/demand for the product.** A large market size leads to high profit levels ,this is due to high level of sales, on the hand a small market size leads to low profit levels this is so because of low level of sales..
- **Cost of production/cost of sales/ Efficiency of firms.** Low cost of production lead to high level of profits, this is so because it motivates producers to increase output levels which results into high level of sales, on the other hand high cost of production de-motivates producer producers leading to low output level and thus low sales leading to low profit levels.
- **Price levels/the rate of inflation.** High price levels lead to low effective demand due to high cost of living, this results into low sales and thus low profits, on the other hand low price levels lead to high effective demand due to low cost of living, this results into high sales and thus high profit levels.
- **The Goal/Objective of the producer(s).** Where the goal of the producer is profit maximisation, it leads to high profit levels, this is so because such producers sell their output at very high prices, on the other hand where the goal of the producer is sales maximisation, it leads to low profit levels because such producers sell their output at low prices.
- **Level of Entrepreneurial skills/ organizational ability.** High level of organizational skills leads increased efficiency in production thus minimizing production costs hence high profit levels, on the other hand low level of organizational skills leads to inefficiency in production leading to high production costs and thus low profit levels.
- **Degree of risks of investments.** High degree of risks leads to high profit levels in the economy, this is because high risks discourage many potential investors limiting competition for the market, thus high sales for the few investors who adventure in business, on the other hand low degree of

risks lead to low profit levels because there are many potential investors which leads to stiff competition for the market leading to low sales.

- **Level of output/ supply/turn over/Size of the firm.** High level of output leads to high level of sales thus high profit levels. On the other hand low levels of output leads to low level of sales which results into low levels of profits.
- **Ease of entry of new firms into an industry/ Number of firms in the industry/Level of competition in the market.** Large number of firms in an industry reduces the market share for each firm, this leads to low sales thus low profit levels. On the other hand limited number of firms in an industry increases the market share for each firm which leads to increased sales, leading to high level of profits.

THE ROLE OF PROFITS IN ECONOMICS:

- Profits are a reward to an entrepreneur for risks and uncertainties endured in the production process.
- It's a guide in resource allocation since entrepreneurs channel resources to profitable ventures.
- Profits stimulate effort for innovation and invention in the production process; this is done through research into new products and methods of production.
- Profits promote investment through ploughing back the unshared profits.
- Profits are used to reward other factors of production such as Labour through paying wages.
- Profits are a source of revenue to the government since the government levies corporate tax on these profits.
- Abnormal profits induce people to the risks of uncertainty.
- Profits measure the degree of risks, usually the higher the level of risks, the higher the profits or the higher the profit the higher the level of risk.

Profit differs from other rewards in the following ways:

- Profits cannot be determined in advance unlike other rewards such as wages, interest, and rent that are determined in advance.
- In case of loss, profits become negative but other factor prices remain positive.
- Other factor rewards are stable and certain but profits fluctuate and are uncertain.
- Profits can be used to reward other factors like Labour, but other factors of production cannot be used to reward an entrepreneur.
- Profits unlike other factors payments are residual payment which accrues to risk takers after all other factors have received their earnings.

Sub- Topic:5 THE CONCEPT OF MARKET STRUCTURES:

Note:

(i)MARKET: This is an arrangement that brings together buyers and sellers to transact business at a particular period of time. It is the total number of buyers and sellers involved in the exchange of a given product at a particular period of time.

(ii) Market structure: This refers to the behaviour of consumers and sellers in the market. It also considers the market conditions such as level of profits, price levels, the level of output, the number of firms etc.

There market structures include the following:

- Perfect competition
- Monopoly
- Monopolistic competition
- Oligopoly

CLASSIFICATION OF MARKET STRUCTURES:

Market structures can be classified into those mentioned above according to:

1. Number of participants or firms.

Where there are many firms the market, it is either Perfect Competition or Monopolistic Competition, while where participants are few it is an Oligopoly firm and where there exists only one firm the market it is Monopoly.

2. Freedom of entry and exit.

Free entry and exit is a feature of perfect competition and monopolistic competition under Oligopoly entry is limited/ restricted and for Monopoly entry of new firms in the industry is totally blocked.

3. Degree of product differentiation.

Perfect competition and Perfect Oligopoly produce/sell homogeneous/ similar products. Meanwhile product differentiation is a feature of Monopolistic Competition and Imperfect Oligopoly.

4. Level of profits in the long run.

Normal profits are realized by Perfect Competition and Monopolistic Competition while Monopoly and Oligopoly firms continue to enjoy supernormal profits in the long run.

5. Objective of the firm

All firms in the different market structures aim at profit maximisation. They all maximise their profits at the equilibrium level of output i.e. at a point where $MC = MR$ when $AR > AC$. (AR is greater than AC).

Sub-Topic 6: PERFECT COMPETITION MARKET STRUCTURE:

This refers to the market in which there are many buyers and sellers dealing in homogeneous commodities/products. In reality this type of market does not exist because the conditions under which it operates are quite ideal. We simply learn it as a guide to other market structures.

Assumptions/characteristics/features/conditions of perfect competition:

Perfect competition is based on the following assumptions:

1. There are many buyers and many sellers:

Under perfect competition it is assumed that there are many sellers that none of them is in position to influence the price of the commodity. The firm therefore is a price taker and the price is determined by the industry through the forces of demand and supply and the firm is faced with a perfectly elastic demand curve.

An illustration of a perfectly elastic demand curve under perfect competition:



From the illustration above at a constant price the firm can sell different output in the market e.g. QQ1, QQ2, QQ3 etc.

N.B While there are many sellers in the market there are also many buyers that none of them is in position to influence market price and for this reason, there is no possibility of securing a discount by any single buyer.

2. Homogeneous products:

Firms deal in homogeneous products to the extent that no buyer has preference for the product of any one individual firm over the other. This implies that firms under perfect competition charge same prices.

3. Freedom of entry and exist.

Firms have a freedom to enter into and move out of the industry. This implies that firms with capital are free to join production and firms with an inadequate capital can leave the industry without any barriers.

4. No government interference.

Government does not interfere in price – output determination. Price – output combinations are determined by the market forces of demand and supply.

5. Profit maximisation:

The goal of the firm under perfect competition is profit maximisation where Marginal Cost is equal to Marginal Revenue (MC = MR).

An illustration of the point of profit maximisation under perfect competition.

From the diagram output OQ_1 is the profit maximising output at price OP_1 at point A.

6. No transport costs.

This means that the raw materials, the firms and the consumers are all located in the same area. This condition also implies that firms under perfect competition must charge the same price.

7. No advertising.

Under perfect competition firms do not advertise and this therefore reduces the cost of production. There is no advertising in the market because of product homogeneity.

8. Perfect mobility of factors of production

Under perfect competition there is perfect mobility of factors of production most especially labour and capital. Factors move from lower paid economic activities to higher paid economic activities. This condition implies that increase of labour, skills are easily acquired.

9. There is no collusion. There is no collusion between buyers or sellers of goods. In a perfectly competitive market, buyers do not group together with other buyers nor do sellers group together to determine, influence or manipulate price at which the good is sold.

10. Perfect knowledge of the market.

It is further assumed that consumers and sellers have complete knowledge about the prices at which goods are being sold and bought. In addition it is assumed that they have perfect knowledge of the places where transactions take place. This condition implies that firms under perfect competition must charge the same price so that if one firm tries to charge a higher price then it will not sell anything.

NOTE: There is however a small distinction between **pure competition** and **perfect competition**. The difference between the two is that Pure Competition has no perfect mobility and perfect knowledge of market conditions as it is in Perfect Competition.

THE RELATIONSHIP BETWEEN MR AND AR UNDER PERFECT COMPETITION:

Majorchain Megette: Work hard in silence, let success be your noise

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Since the firm is too small to influence the price, it's bound to sell whatever quantities it produces at the price established by the Market forces of demand and supply. i.e. The firm is a price taker and the demand curve is perfectly elastic. Any additional output can be sold at that price therefore; $AR = P = DD$ under perfect competition e.g. if the firm decides to sell 100 units of the product at Shs 10 each

$$\begin{aligned} TR &= P \times Q \\ TR &= 10 \times 100 \\ TR &= \text{Shs. } 1000 \end{aligned}$$

Yet $AR =$

$=$

$$AR = \text{Shs } 10$$

$$AR = P$$

The MR curve is also equal to the AR curve e.g. if the firm sells 10 units at Shs. 100 each then $TR = \text{Shs. } 1000$.

Calculate the value of MR

$MR =$

$=$

$$MR = \text{Shs. } 10$$

EQUILIBRIUM POSITIONS OF THE FIRM UNDER PERFECT COMPETITION:

It is determined where $MC = MR$. it should be noted that under perfect competition equilibrium is achieved where price is equal to $MR = AR = DD = MC$.

The following conditions must be satisfied for the equilibrium to be achieved

i) $MC = MR$ (Necessary condition)

ii) MC curve must cut the MR curve from below and this is explained in the diagram below.

An illustration of the equilibrium position of the firm under perfect competition:

From the illustration above output OQ_1 is not the equilibrium level of output because if the firm was to produce an extra unit of output it would fetch more revenue than the costs incurred in its production, therefore it pays the firm to increase its output in order to earn more profits. Output OQ_2 is the equilibrium level of output under perfect competition.

This is because if the firm was to produce an extra unit of output it would fetch less revenue than the costs incurred in its production. Therefore it pays to stop at output OQ_2 and not to produce an extra unit of output; **the sufficient output level of profit maximisation is therefore OQ_2**

- **Necessary condition** is where $MC = MR$ (point X) but output is low and therefore profits are not maximised.

- **Sufficient condition** is where $MC = MR$ (point M) at the highest level of output. (OQ_2).

Short run equilibrium of the firm under perfect competition.

In the short run a firm can either make abnormal profits or incur losses.

In short run profits are maximised where $MC = MR$ but under perfect competition it is that point where MC cuts MR from below.

An illustration of the short run equilibrium position of the firm under perfect.

Profits are maximised where Marginal Cost is equal to Marginal Revenue($MC = MR$) as shown below.

From the diagram above, Price is determined where the output line meets the AR/Demand curve at point A.

- Output is determined at point A where $MC = MR$ i.e. OQ_e . Output OQ_e is produced at a cost OC_1 , at point B.

The firm earns abnormal/supernormal profits represented by a rectangle $Pe ABC_1$ where Average Revenue (AR) is greater than Average cost (AC).

LOSSES IN THE SHORT RUN UNDER PERFECT COMPETITION

It should be noted that a firm under perfect competition can also incur losses in the short run. This is because the period is too short to enable firms vary all factors of production i.e. to vary fixed factors in order to increase supply.

An Illustration of losses in the short run under perfect competition.

From the above illustration, the firm is in equilibrium at point A where $MC = MR$.

The equilibrium output produced is OQ_e determined where $MC = MR$. (OQ_e line/link).

The price is determined where the output line meets the demand curve/AR curve at point A.

The cost of producing output OQ_e is OC_1 determined at point B. therefore at equilibrium AC is greater than AR implying that the firm is making losses indicated by ABC_1Pe as shown by the shaded area.

LONG RUN PRICE, OUTPUT AND PRICE DETERMINATION UNDER PERFECT COMPETITION:

In the long run the firm under perfect competition is in equilibrium when $AR = MC = MR = AC$. In the long run all firms in the industry under perfect competition earn normal/zero profits. This is because of entry of new firms into the industry as they are attracted by the abnormal profits of the short run.

When new firms join the industry, output increases as well as the average cost of production. This is so because of increased supply of output and increased demand for factors of production. Price level reduces and also profit level eventually reduces and thus all firms earn normal/zero profits as illustrated below.

An illustration of long run price, output and profit determination under perfect competition.

From the above diagram in the long run, the firm under perfect competition is in equilibrium at point E where $MC = MR = AR = DD = AC$.

Equilibrium output OQ_e is determined where $MC = MR$ i.e. OQ_e line/link.

Equilibrium price OP_e is automatically determined by the forces of demand and supply at point E i.e. OP_e line/link.

At the equilibrium point $AC = AR$ implying that the firm is neither making abnormal profits nor incurring losses thus such a firm is earning zero/ normal profits.

THE SUPPLY CURVE UNDER PERFECT COMPETITION

The supply curve of the firm shows various quantities of commodities available for sale at various prices. The supply curve is therefore derived from point of intersection of marginal cost curve with successive demand curves.

An illustration of the supply curve under perfect competition:

From the diagram above, if the price is OP_5 the quantity supplied is OQ_5 where $MC = MR_5$. When the price is reduced to OP_4 the quantity supplied reduces to OQ_4 where $MC = MR_4$. When the price reduces further to OP_3 the quantity supplied also reduces further to OQ_3 where $MC = MR_3$.

With output OQ_5 the firm makes economic profits while with output OQ_4 the firm makes zero or normal profits. Without OQ_3 the firm incurs losses. It should be noted however that output OQ will be produced despite the losses incurred. This is because the firm is still in position to cover the average variable cost. In the short run, therefore the supply curve of a perfectly competitive firm is exactly the same as MC curve for all levels of output equal to or greater than that level of output which corresponds to the minimum point of AVC curve (Point B).

SHUT DOWN AND BREAK-EVEN POINTS OF A FIRM UNDER PERFECT COMPETITION:

1. BREAK EVEN POINT of a firm. This is where a firm neither makes Supernormal profits nor incurs losses. I.e. where a firm earns normal/zero profits. ($AR = AC$).

2. SHUT DOWN POINT of a firm. This is a point below which firm cannot cover its Average variable Costs. ($AR = AVC$)

OR It is a point where the firm covers only its Average Variable Costs

An illustration of the Break-even and the Shut down points of the Firm under Perfect Competition:

From the illustration point **B** represents the **Break-even point**, where the firm neither makes profits nor incurs losses.

While point **S** represents the **Shut-down point of the firm** which corresponds to the lowest point of **AVC curve**. This point shows that the firm just covers only the Average variable costs i.e. it is a point **where $AVC = AR$** . Below this point the firm will be making a lot of losses and it is worth closing down.

**REASONS WHY A FIRM CONTINUES PRODUCING WHEN IT IS MAKING ZERO/
NORMAL PROFITS OR WHY FIRMS CONTINUE PRODUCING EVEN WHEN THEY HAVE
FAILED TO COVER THEIR AVERAGE VARIABLE COSTS.**

- The firm will continue operating in the short run as long as it covers the variable/vital operating costs like wages, salaries, and raw materials with the hope to cover its fixed costs in the long run.
- High costs may be of a seasonal nature. The firm may be sustained by the hope that the business climate may improve in the near future and therefore the business may grow hence enabling firm to make profits.
- The need to maintain a grip over the market. A firm may fear to lose its market and goodwill because getting a new market may be expensive usually involving expensive advertising.
- Fear of high costs of depreciation/ re-opening. The firm may be avoiding high costs of depreciation of machinery whereby re-starting may involve repairing or renovating machines.
- Fear to lose skilled manpower/labour. The firm may have built up a pool of specialised skilled manpower which it may fear to lose, hence continues operating. This is because labour is expensive to train.
- Hope to change management. The firm may review its management and administration where there is inefficiency leading to high costs arising from poor management.
- The fear of losing the source/ supplies of raw materials especially and getting new sources may be very expensive.
- The firm may adopt new technique a production which is aimed at reducing costs hence it will continue producing even if it is making losses.
- Hope to get a loan/ Aid. A firm may decide to get a loan from the financial institution, so the firm may decide to remain producing even when making losses.
- It may be a branch of an industry, and therefore the losses in one firm may covered by profits in other firms of the same industry.
- It may be a state owned firm offering essential services hence continue in production.
- It may be a beginner firm; this is where the firm is still in infant stage hoping to reap profits in the long run.
- It may be a research unit where the objects are short lived, and after attaining them, it closes.
- Fear losing contracts. As the firm closes it loses contracts which may lead to heavy punishment for breaching the contract, i.e. will be pay heavily financially.
- It may be hoping to merge with another profit making firm(s).

ADVANTAGES/MERITS OF PERFECT COMPETITION:

- There is efficient allocation of resources in the long run and short run using market forces.
- It provides an efficient standard or convenient measuring rod for comparison of price determination in other markets.
- It ensures fair and stable prices in the market since the commodities sold are homogeneous.
- It ensures equitable distribution of income because of the many firms and free entry and exit i.e. in terms of employment.
- It ensures increases output because of large number of firms/ Producers in the market.
- No wastage of resources/funds in advertising that would increase the cost of production hence increase in prices of goods and services.

DISADVANTAGES/DEMERITS OF PERFECT COMPETITION:

- It assumes certain ideal market situations that do not exist in real life. e.g. awareness of market situations by buyers and no transport cost.
- It cannot eliminate natural monopolies and business ownership of capital.
- The firm earns Normal/ Zero profit levels in the long run. This limits research and innovations in the production process.
- There is lack of economies of scale which limits the expansion of the firms.
- There is a limited variety of goods and services, which limits the consumer's choices due production of homogeneous products.
- It may lead to unemployment in the long run since inefficient firms are pushed out of production/ are outcompeted in production
- It leads to duplication of goods and services, therefore leading to wastage of resources.

Sub-Topic 7: MONOPOLY

This is a market situation where there is **only one producer / seller** but many buyers of a commodity that has limited or no close substitutes.

A simple or an imperfect monopoly is an ordinary monopoly whereby the product produced has limited close substitutes.

Examples in Uganda include Uganda Electricity Distribution Company Ltd UEDC Ltd as sole distributor of hydroelectric power, Uganda Railways Corporation.

Forms of monopoly include:

Pure/perfect/absolute Monopoly.

This is a market situation where there is one producer but many buyers of a commodity that has **no substitutes at all**. The cross elasticity of demand of a product of such a firm is zero. However given that in the real This is a market situation where there is one producer but many buyers of a commodity that has **no substitutes at all**

- **Bilateral Monopoly.** This is a market consisting of one seller (monopolist) and a single buyer of a single commodity e.g. a single firm producing all the copper and another single firm uses the copper. In real situation bilateral relationship between trade union and employers association is a best example of bilateral monopoly
- **Monopsony.** This is a market situation where there exist many producers but a single consumer or buyer of a product. A commodity statutory marketing board that buys a particular crop from all the farmers in the country is a good example of a monopsony.
- **Statutory monopoly.** Statutory monopoly is one formed by the Act of parliament. It has the sole right to deal in specified economic activities for example, in the provision of public utilities such as water, electricity, gas.
- **Natural monopoly.** This is a monopoly situation that arises from the ownership of specific/strategic natural resources or unique talent by a producer making it hard for other firms to join the industry.
- **Spatial monopoly.** Spatial monopoly is one which arises from longer distance between producers of a commodity.
- **Collective monopoly.** Collective monopoly is one which comes into existence due to merging of firms.
- **Discriminative monopoly.** Discriminative monopoly is one where a firm sells the same commodity to different customers at different prices irrespective of costs of production.

FACTORS THAT GIVE RISE TO MONOPOLY:

- **Existence of patent rights to inventors and copyrights to authors or special talents.** Such patent rights are granted by the government to a firm to produce a commodity of specified quality or to use a specified technique of production for a given period of time.
- **Large initial capital requirements.** Where large initial capital is required in the production of a given commodity, few firms can afford hence giving rise to monopoly.
- **Where the market is too small for many firms to operate.** Firms enjoy monopoly powers where the market can only allow one optimum firm to operate at its minimum level of efficiency.
- **Natural monopolies due to ownership or of control of a strategic source of raw materials.** Firms become monopolists by obtaining control over certain inputs that are essential for the production a commodity.
- **Spatial monopolies due to long distance between firms.** One may become a monopolist so long it does not become worthwhile for the consumers to incur transport costs to bring in commodities of other producers.

- **Mergers and takeover of firms.** Some Monopolies come into existence due to integration/amalgamation of several firms in the same line of production.
- **Long period of apprenticeship i.e. long periods of training** leading to professional Monopolies such as Architects, Chartered Accountants etc. People are restricted from entry into such professions, through extension of training period.
- **Statutory monopolies arising from government through Statutes and Acts of parliament.** Some monopolies come into existence by the Act of parliament and they exist as public utilities, and can be removed only when the law is removed.
- **Protectionism in international trade leading to Sheltered Monopolies.** Monopoly comes into existence when government imposes restrictions on foreign goods through tax and non-tax barriers. This makes the local producers become monopolists e.g. soda firms, sugar firms in Uganda.
- **Exclusive knowledge about production of a commodity.** Firms especially in the manufacturing sector design processes that are secretly kept and this makes them have monopoly power over production of certain commodities.
- **Limit-pricing policies/ Aggressive price wars.** This is the setting of a lower or unattractive price for a given commodity in order to prevent entry of new firms in the industry. Limit-pricing gives monopoly power to those firms which adopt it.
- **Cartels and common marketing policies e.g.** Organisation of petroleum exporting countries (OPEC). Countries producing a similar commodity such as petroleum may decide to restrict supply on the market and also charge the same price for their product.

THE RELATIONSHIP BETWEEN MARGINAL REVENUE AND AVERAGE REVENUE UNDER MONOPOLY:

Marginal Revenue is not the same as Average Revenue under all imperfect markets, e.g. Monopoly, Monopolistic Competition and Oligopoly.

Under Monopoly Marginal Revenue lies below the Average Revenue curve and this is because a monopolist is able to obtain more revenue by lowering his price and thus making the Marginal Revenue curve fall faster than the Average Revenue curve.

A Monopolist faces a demand curve which is inelastic and this because he deals in a commodity which has no or limited close substitutes.

An illustration of the demand curve under Monopoly:

In the illustration the demand is inelastic while the Marginal Revenue is below the Average Revenue Curve.

SHORT-RUN SITUATION OF A FIRM UNDER MONOPOLY.

A firm under monopoly aims at profit maximisation and profits are maximised at a point where Marginal cost is equal to Marginal revenue ($MC = MR$) and this is the equilibrium position.

In the short run the firm can either earn Economic/Supernormal profits or incur losses.

An illustration of price, output and profit determination under monopoly in the short run.

In the illustration above;

>The level of output that maximises profits is determined at point E where $MC = MR$, and firms' output is OQ_e

>The price OP_e is determined at point A on the demand curve, where the output line meets the average revenue curve.

>The cost OC_o is determined at point B, where the output line meets the average cost curve.

>In the short-run, firms under monopoly earn Supernormal profits because average revenue is greater than average cost ($AR > AC$) at equilibrium level of output. Supernormal profits are represented by the shaded area **PeABCo**.

An illustration of losses under Monopoly in the short run:

In the short run the firm can also incur losses as illustrated below.

In case of losses, the AC exceeds the AR at equilibrium level of output where $MC = MR$ as shown above. From the illustration above, the firm earns revenue equivalent to $OPeTQe$ but incurs high costs $OCoSQe$.

Given that the exit of firms is blocked under monopoly a firm which is incurring losses does not leave the industry but it takes some measures to get rid of the losses e.g. laying off some workers in case of a high wage bill, reshuffling management in case management was inefficient, improving the techniques of production etc.

LONG-RUN SITUATION OF FIRMS UNDER MONOPOLY.

In the long-run, monopoly firms continue to produce at equilibrium where $LMC = LMR$ and this is where higher Supernormal profits are maximised.

An illustration of abnormal profits in the long run under monopoly:

In the illustration above;

>The level of output that maximises profits is determined at point E where $LMC = LMR$, and firm's output is OQe i.e. OQe line/link.

>The price OPe is determined at point M on the demand curve; where the output line meets the long-run Average Revenue curve i.e. OPe line/link.

>The cost OCo is determined at point N, where the output line meets the long-run Average cost curve.

>In the long-run, a firm under monopoly earns higher Supernormal profits because the Average revenue is greater than average cost ($LAR > LAC$) at equilibrium level of output.(OQe). The higher Supernormal profits are represented by the shaded area PeMNC_o

MERITS OF MONOPOLY:

- There is limited duplication and resource wastage. This helps to save society's scarce resources for example in utilities industries of water and electricity.
- Internal economies of scale are enjoyed in case of natural monopoly, where the market demand is only sufficient for one firm to operate at its minimum level of efficiency.
- Price discrimination is practiced and this benefits the low income earners who would go without some commodities.
- Research and innovations are encouraged through patent rights, because of presence of supernormal profits both in the short-run and long-run.
- Monopoly facilitates the growth and therefore development of infant industries because of patent rights accorded to them.
- Monopoly firms are sources of revenue to government through taxation on abnormal profits.
- Monopoly firms have ability to create and widen employment opportunities especially state/statutory monopolies.
- Monopoly firms experience low operational costs; this is mainly so due limited advertising of commodities. This means that there is a possibility of monopoly firms to charge low prices.
- Public utilities such as water and electricity are in most cases provided at reasonable prices which improve consumer's welfare.
- Abnormal profits are enjoyed, this helps to expand the size of the firm through re-investing/ploughing back such profits in business.

DEMERITS OF MONOPOY.

- Monopoly leads to consumer exploitation by way of charging high prices, since consumers have no alternative sources of commodities.
- Leads to limited variety of goods and services on the market. This limits the consumer's choice, leading to low standard of living.
- Monopoly promotes income inequality because incomes are redistributed in favour of monopolists in form of abnormal profits while the rest of society becomes poorer.
- Monopoly firms produce low quality output on the market due to lack of competition.
- Monopoly leads to underemployment and unemployment of labour due to operation at excess capacity.
- Monopoly firms cause shortages of commodities on the market especially in times of break down.
- Monopoly firms exert pressure on government especially in decision making which compromises its performance e.g. decisions to do with taxation; a case in point is BAT (U).
- Monopoly firms exploit workers by way of underpaying them.
- Monopoly firms produce at excess capacity in some industries which leads to underutilization of resources, limited output and high prices of commodities.

THE CONCEPT OF EXCESS CAPACITY

Excess capacity is a situation where a firm or an industry is producing at less than installed capacity (optimum capacity). It is characterized by underutilization of available resources by a firm or an industry in a country.

An illustration of excess Capacity under monopoly.

The firm produces at equilibrium as represented by point **E** instead of producing at optimum capacity represented by output **OQ1**. The difference between equilibrium output and optimum output is the excess capacity.

Causes of excess capacity in production

- Too much desire for higher profits by entrepreneurs, where they restrict output so as to charge high prices.
- Limited domestic and foreign markets which do not justify production of commodities at full capacity.
- Poor state of technology that does not encourage production at full capacity.
- Poor infrastructures for example poor roads, which do not encourage production at full capacity.
- Limited co-operant factors of production such as capital and labour.
- High production costs as a result of high taxation by government, high transport costs.
- Political instabilities which increase uncertainties in production.
- Limited entrepreneurial abilities to encourage innovations and inventions to produce at full capacity.
- Limited raw materials which do not encourage production at full capacity.

THE CONCEPT OF PRICE DISCRIMINATION.

Price discrimination is the act by a monopolist to charge different prices for the same product/similar product to different consumers/ markets.

Examples of price discrimination include:

- Different prices charged for seats in cinema halls or theatres.
- Different prices charged for seats in aircraft or train.
- Different prices charged for seats in national stadiums.
- Different prices charged in discotheques such as Ange Noir.
- Different prices charged in provision of medical services by medical doctors.

Forms/ basis of price discrimination:

- **Discrimination based on the level of income of consumers.** The rich customers pay a high price whereas the low income earners pay a lower price for the same commodity. For example, medical doctors charge high fees on rich patients than the poor patients.
- **Discrimination based on nature of a commodity.** Branded products are sold at high prices than the unbranded ones. For example in aero planes and trains, different charges exist for first class and other classes.
- **Discrimination based on time of service.** This is common in cinema houses and telephone services, customers are charged higher rates during peak hours as compared to the rates off -peak hours.
- **Discrimination based on gender and age.** For example, lower entry fee for ladies in discotheques at night, lower price for children's haircuts.
- **Discrimination based on geographical area.** In a market where the elasticity of demand for a product is inelastic a high price is charged and where the elasticity of demand is elastic a low price is charged.
- **Discrimination based on the use of the product.** This is when different prices are charged according to the uses to which the commodity is put. E.g. electricity is usually sold cheaply for industrial uses than for domestic purposes.

Conditions necessary for the success of price discrimination:

- The market should be divided into sub-markets based on age, level of income, gender and geographical separation.
- There should be different price elasticities elastic and inelastic demand in the different markets.
- The marginal revenue in different markets should be the same.
- The producer or seller must be a monopolist selling a commodity with no close substitutes.
- The cost of transferring a commodity by a consumer from one market to another should be high (no arbitrage).
- The cost of separating markets by the monopolist should be low so as to gain from price differences.
- The consumer must be ignorant about the existence of other cheaper markets so that one who buys at high price does not know that the commodity can be acquired at a lower price.
- There should be no government interference in the market in form of price controls.
- Where goods are sold on special order or contracts because consumers cannot know what is being paid by other customers.
- In case of personal services which cannot be transferred from one person to another for example medical services.
- There should be low cost of separating the markets by the producer.
- The producer must be a monopolist/ there must be one producer of the commodity and the commodity must not have a close substitute.

Merits of price discrimination:

- Poor consumers buy essential goods and services at relatively low prices.
- It increases total revenue of the monopolist as a result of selling a lot of output.
- It is the only way through which the rich can subsidise the poor people.
- It helps the monopolist to dispose -off surplus output through selling in a market where demand is elastic.

Demerits of price discrimination:

- It leads to uneven distribution of income because the monopolist earns more by selling to both the rich and poor customers.
- It leads to dumping which discourages production in countries where such commodities are sold at cheaper prices than the price charged in the domestic country.
- It eliminates consumer's surplus since the commodity is sold by the monopolist.
- Poor quality commodities are sold at very low prices due to existence of monopoly power.

MEASURES TO CONTROL MONOPOLY POWER IN A COUNTRY:

- Adoption of price control in form of maximum price on monopolised commodities, such that it becomes illegal to trade above the set price by the government.
- Adoption of taxation in form of lump sum and specific taxes to reduce the supernormal profits enjoyed by monopolists.
- Removal of foreign trade restrictions on foreign goods to allow fair competition and promote efficiency of domestic firms.
- Encourage new firms by government to join industry through provision of subsidies.
- Improvement of economic infrastructures such as roads, railways, electricity to reduce on costs of production and attract new firms to join industry.
- Adoption of nationalisation where government takes over privately owned enterprises to promote efficiency and increase output of goods and services.
- Adoption of anti-merger laws i.e. enacting laws against monopoly practices such as merging of firms.
- Relaxing patent rights granted to inventors and copy rights to authors such that competition in production is open to many entrants.
- Publicising all abuses of monopoly such as political and economic corruption, unfair business practices etc.
- Formation of purchasers' associations aimed at increasing bargaining strength of consumers of a commodity and creating awareness among the consumers.
- Establishment of bureau of standards, such institutions in setting set standards that producers must follow if they are to continue with their businesses.
- Undertake privatisation, this is intended to control or remove statutory monopolies.

Sub-Topic 8: MONOPOLISTIC COMPETITION

Monopolistic competition is a market structure in which there are many buyers and firms producing differentiated products that are close but not perfect substitutes.

The market structure has elements of competition and monopoly. Examples of firms operating under conditions of monopolistic competition are Bakery industry, taxi industry, Soap and detergents industry, saloon services, tea industry, estate agents, funeral directors, insurance brokers etc.

Characteristics of monopolistic competition

Majorchain Megette: Work hard in silence, let success be your noise

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1. There are many buyers and sellers in the market (industry) who have limited market powers and none of the firms can control a very big portion of the market.
2. There is freedom of entry and exit of firms. This means that there are no barriers to entry of new firms and obstacle to firms leaving the industry.
3. The products produced are highly differentiated by branding, packing, Colour, taste, design and trademarks but have close substitutes.
4. There is widespread persuasive advertising and sales promotion campaigns, all of which aim at making the demand for commodities inelastic.
5. Firms can be price makers to a certain extent because of monopoly elements. This means that each firm has monopoly power over its brand.
6. Firms under monopolistic competition aim at profit maximization both in the short-run and in long-run, and profits are maximized at a point where marginal cost is equal to marginal revenue.
7. Firms under monopolistic competition earn supernormal profits in the short-run and normal profits in the long-run.
8. The demand curve of firms under monopolistic competition is highly elastic sloping from left to right. This is because commodities produced have close (many) substitutes.
9. Firms under monopolistic competition produce commodities at excess capacity hence underutilizing available resources.
10. There is brand loyalty (commitment) by consumers, where they can easily identify a commodity of a particular producer considered superior to other brands.
11. Firms under monopolistic competition incur different costs for example transport and production costs therefore have different profit levels.

SHORT-RUN SITUATION OF A FIRM UNDER MONOPOLISTIC COMPETITION

1. In the short-run, efficient firms under monopolistic competition earn supernormal profits and they produce at a point where $MC = MR$.

Diagram

>The level of output that maximizes profits of a firm is determined at point E, where $MC = MR$.

- >The price OP is determined at a point where the output line meets the demand curve at point A.
- >The cost OC is determined at point B where the output line meets the average cost curve.
- >The firm earns abnormal profits because average revenue is greater than average cost at equilibrium level of output, as represented by the shaded area PACB.

LONG-RUN SITUATION OF A FIRM UNDER MONOPOLISTIC COMPETITION

In the long-run, firms continue to aim at equilibrium where $LMC = LMR$, and this is where output is determined. Because of freedom of entry in the market, the short-run supernormal profits attract new firms, which lead to increase in the average costs of production hence the upward shift of the average cost curve.

Diagram

- >The level of output that maximizes profits is determined at point E where $LMC = LMR$ (output OQ)
- >The price OP is determined at point A where the output line meets the LAR curve, and the LAR curve is tangent to LAC curve.
- >The cost OC is determined at point A where the output line meets the LAC curve.
- >All firms earn normal profits because LAR is tangent to LAC ($LAC = LAR$) at the equilibrium level of output.

Merits of monopolistic competition

1. Consumers enjoy commodities at relatively low prices due to competition among firms.
2. It leads to production of a wide variety of commodities due to product differentiation, which improves consumer's choice and preference.
3. It leads to production of better quality products due to competition among firms.
4. It leads to high output of products due to existence of many firms in the industry.
5. Monopolistic firms provide employment opportunities, which improve on peoples' welfare.
6. Monopolistic firms contribute revenue to the government through taxation on abnormal profits.
7. Monopolistic competition promotes inventions and innovations through product development.
8. Abnormal profits earned by firms in the short-run can be used for expansion.
9. Persuasive advertisement enables firms to expand markets for their products

Demerits of monopolistic competition

1. It leads to wastage of resources due to duplication of economic activities or services.
2. It leads to underutilization of resources by firms due to production at excess capacity.
3. Firms experience high costs of production due to existence of competitive advertisement and product differentiation.
4. It leads to limited market share because of the many firms in monopolistic competition.

5. It leads to distortion of consumer choices due to competitive persuasive advertisement.
6. Limited research is done by firms in due to absence of abnormal profits in the long-run.
7. It leads to unemployment due to collapse and exit of inefficient firms in the long-run.
8. It leads to consumer exploitation due to high prices charged under monopolistic competition.

Sub- Topic 9: OLIGOPOLY:

Oligopoly is market structure in which there are a few firms either producing homogeneous products of differentiated products.

Oligopoly can be categorized as:

1. Perfect / Pure oligopoly.

Pure oligopoly is a market situation in which there are a few firms producing homogeneous products. For example, raw materials in form of petroleum, steel, Aluminum and oil. There is close interdependence such that, price-output move of one firm affects price-output move of all other firms in the industry.

2. Imperfect / Differentiated oligopoly.

Imperfect oligopoly is a market situation in which there are a few firms producing **differentiated products**. Commodities are close but not perfect substitutes.

Examples of oligopoly firms in Uganda include:

- a. Soft drinks industry composed of crown beverages limited and century bottling company ltd
- b. Cement industry composed of Hima cement, Kampala cement and Tororo cement factories.
- c. Petro industry composed of Shell, Total,
- d. Beer industry composed of Nile Breweries, East African Breweries and Parambot Breweries.
- e. Mattress industry composed of Vita foam, Royal foam, Euroflex, Comfoam, Megha foam, Crest foam
- f. Telecommunications industry composed of MTN, AIRTEL, Africell, etc.

CHARACTERISTICS OF OLIGOPOLY.

1. There are few firms and many buyers participating in the market, and each of these firms controls a substantial share of the market.
2. There is close interdependence among firms. This means that price and output decisions of one firm affect others.
3. There is use of intensive sales promotional activities/ Non- price competition such as persuasive advertising, provision of after sales.
4. Different sizes of firms. There is lack of uniformity; this means that firms are of different sizes whereby some are small firms, medium firms and large scale firms.
5. There is no unique pattern of pricing as compared to other market structures but prices are determined by cartels/collusive pricing, independent pricing or price leadership.
6. Firms in the market are faced with a kinked demand curve. This is because of the uncertainties in the market.
7. There is price rigidity which is due to uncertainty that exists in the industry and none of the participants would like to interfere with price because it may spark- off price wars.
8. There is limited entry of firms in the industry since mature firms use unfair competitive methods which limit entry of new firms in the industry.
9. Profit maximisation is the main motive of production. Firms under oligopoly aim at making profits.E.g. Firms earn supernormal profits due blocked entry of new firms in the industry.
10. There is product differentiation under imperfect oligopoly and product homogeneity under perfect oligopoly.
11. There is high degree of uncertainty. The Oligopolist is always uncertain of price- output moves of other firms in the market.

NON – PRICE COMPETITION.

Non – price competition is a situation where firms in the same industry use other means of competition rather than changing prices of a product.

Forms of non – price competition.

1. Use of widespread persuasive advertisement over radios and television.
2. Provision of after sale services for example free repairs, free transport services, cleaning windscreens at petrol stations.
3. Offering gifts to customers such as soap, scholastic materials, T-shirts, key holders.
4. Opening up branches or distribution points and improving quality of shopping outlets.
5. Sponsoring sports events and this is common with MTN, Airtel, Crown bottlers etc
6. Use of appealing brands, trademarks and slogans to attract many customers, e.g. MTN Everywhere You go, Nomi loves clothes and clothes loves Nomi.
7. Distributing free samples of commodities to customers so as to attract them.
8. Quality improvement of products produced by firms for example unleaded petrol by Shell.
10. Special packaging of commodities by using different designs to attract more customers.
11. Provision of credit facilities or installment selling.
12. Organising raffle draws and consumer games where winners are rewarded highly.
13. Organising trade fairs and exhibition to make customers aware of the product.
14. Differentiated packaging, designing, packing in attractive materials

THE DEMAND CURVE OF A FIRM UNDER OLIGOPOLY

The demand curve of firm under oligopoly is of a kinked nature. A kinked demand curve is one which is elastic at high prices and inelastic at lower prices.

An illustration of a demand curve under oligopoly:

>From the diagram price $O P_0$ is the administered price and this is at point where the demand curve is kinked at point F such that if one firm increases the price above $O P_0$, other firms will not follow. However if a firm reduces price below $O P_0$ other firms will also follow by lowering their prices so as to protect their market i.e. so as not to lose their customers. Therefore the demand curve is elastic from point F to point E and inelastic from point F to point G.

Assumptions of a kinked demand curve

1. There is an established market price for the product at which all firms are satisfied.
2. A decision by one firm to increase price, does attract other firms to follow because they fear to lose the largest portion of the market.
3. A decision by one firm to reduce price attracts other firms to follow because this is the only way to capture largest portion of the market.
4. Firms under oligopoly are mature firms in business or production.

PRICE DETERMINATION UNDER OLIGOPOLY

Under oligopoly there is no unique pattern of pricing as compared to other market structures, therefore prices are determined in the following ways:

1. Independent pricing. Independent pricing is where firms act independently and set prices on their own. In this case there is no collusion and the method is likely to cause price war.
2. Price leadership or Imperfect collusion. Price leadership is where the leading firm in business determines the price at which other firms are supposed to sell the product. The price leader can be low cost firm, dominant or the largest firm in the industry.
3. Perfect collusion. Perfect collusion is a situation where oligopoly firms enter into a cartel of independent producers to determine output and price collectively.

NOTE: A cartel is an organisation of independent firms operating in the same industry. The cartel aims at: reducing competition among firms, controlling output and stabilizing prices in the market.

PRICE RIGIDITY OR STABILTY UNDER OLIGOPOLY

Prices tend to be stable under oligopoly despite the changes in costs of production and this is due to:

1. Individual firms may have learnt from past experience, the effects of price wars.
2. Firms being content with current level of prices, output and profits and therefore no need of changing prices
3. Firm's preference to use non – price competition such as advertising, provision of after sale services.
4. Price changes being unprofitable, because high prices discourage consumers while lower prices do not cover costs of production.
5. Firms preference to stick to present price level to prevent new firms from joining the industry.
6. Fixing a stable price through agreement (collusion) and no single firm would like to interfere with it for fear of unleashing a price war.

SHORT-RUN SITUATION OF FIRMS UNDER OLIGOPOLY

Firms under oligopoly aim at profit maximization and profits are maximized at a point where Marginal cost is equal to marginal revenue, and this is the equilibrium position.

An illustration showing price, output and profit determination of a firm under Oligopoly in the short-run.

- >The level of output that maximizes profits is determined at a point where $MC = MR$, and MC cuts the MR curve in its discontinuous portion (D – E)
- >The price $O P_e$ is determined at point A on the demand curve through agreement, where the output line meets the average revenue curve.
- >The cost $O C$ is determined at point B, where the output line meets the average cost curve.
- >In the short-run, firms under oligopoly earn supernormal profits because average revenue is greater than average cost ($AR > AC$) at equilibrium level of output ($O Q_e$). Supernormal profits are represented by the shaded area $P_e A B C$.

LONG-RUN SITUATION OF FIRMS UNDER OLIGOPOLY

In the long-run, oligopoly firms continue to produce at equilibrium where $LMC = LMR$ and this is where higher supernormal profits are maximized. Profits increase due to a fall in average costs of production, formation of cartels, mature market sharing and reduced degree of uncertainty.

The long run demand curve is fairly elastic and has a minimum kink. The marginal revenue curve has a small break unlike in the short run because of reduced degree of uncertainty in the mature oligopoly industry.

An illustration showing price, output and profit determination of a firm under Oligopoly in the long-run.

- >The level of output that maximizes profits is determined at a point where $LMC = LMR$, and LMC cuts the LMR curve in its discontinuous portion (a – b). The LMR curve has a small break unlike in the short run because of reduced degree of uncertainty in the industry.
- >The price OP is determined at point A on the demand curve through agreement, where the output line meets the long run average revenue curve.
- >The cost OC is determined at point B, where the output line meets the long run average cost curve.
- >In the long-run, firms under oligopoly earn supernormal profits because long run average revenue is greater than long run average cost ($LAR > LAC$) at equilibrium level of output. Supernormal profits are represented by the shaded area $PACB$.

MERITS OF OLIGOPOLY

1. Low prices are charged to customers and this leads to increased demand for goods and services.
2. It makes consumers budgeting easy due to price stability in the industry
3. It widens consumer choices due to production of a variety of goods and services.
4. It leads to production of quality goods and services due stiff competition among firms.
5. Oligopoly firms provide employment opportunities which improve on people's welfare.
6. Oligopoly firms contribute to economic growth by increasing the level of output of goods and services.
7. Oligopoly firms contribute revenue to the government through taxation on supernormal profits of the Oligopoly firms.
8. Oligopoly market situation leads to increased innovation due to stiff competition among firms and the need to maximize profits.
9. It enables firms to enjoy abnormal profits both in the short-run and long-run.
10. Leads to development of infrastructures. The establishment of Oligopoly firms facilitates the setting up of infrastructures such as roads, financial institutions etc.
11. Consumers benefit from non- price competition such as free gifts, after-sales services etc.
12. Leads to increased resource utilisation. This is because of the supernormal profits enjoyed which enable the firms to exploit the would-be idle resources.

DEMERITS OF OLIGOPOLY

1. It distorts consumer choices due to widespread persuasive advertising for the products.
2. It leads to exploitation of consumers through overcharging due to collusion of firms.
3. It leads high costs of production due to intensive sales promotional activities/ High prices of the final products due to high costs of competition.
4. It leads to duplication due to production of similar products hence resource wastage.
5. It worsens the problem of income inequality in an economy due to supernormal profits enjoyed by oligopoly firms.
6. It leads to collapse of small firms due stiff competition among firms.
7. There is limited employment creation due to existence of a few firms, and limited entry of new firms in the industry.
8. It leads to limited entrepreneurial development / limited investment due to limited entry for new firms in the market.
9. Industries with large firms exert pressure on government hence become a tool of political agitation.
10. It leads to underutilization of available resources due to operation at excess capacity.
11. It leads to production of limited variety of goods in case of perfect oligopoly markets.