

## PRODUCTION MANAGEMENT

Production management refers to the detailed procedures that the entrepreneur needs to put in place so as to produce the desired goods and services.

### PRODUCTION

Production is the process of transforming raw materials into finished products so as to satisfy human wants.

**Product** is a good or service that is intended for sale.

**Goods** are tangible items that can be seen and touched.

**Services** are intangible activities performed using personal skills of the entrepreneur or workers.

### PRODUCTION PROCESS

Production process refers to the steps involved in producing a good or service .the process involves the following;

- a) Carrying out market research, this involves collecting information related to the market and customer needs to ensure that what is produced meets the customers` interest.
- b) Developing a product idea, this is a decision that is taken to translate an imaginary idea into something that is to satisfy an indentified need.
- c) Translating a product idea into a product design,.
- d) Sourcing or acquiring raw materials, these are inputs required to produce the desired product.
- e) Carrying out actual production and observing quality standards of the enterprises.
- f) Storing the product
- g) Distribution the product
- h) Making a follow up with customers, this is done to find out how the product is performing in the market.
- i) Making any improvements desired, this is done using the information obtained during a product follow up and any other mechanism to ensure that customers views is obtained about the product.

## **DEFINITION OF A PRODUCT**

- A product can be defined as a collection of physical, service and symbolic attributes which yield satisfaction or benefits to a user or buyer. Or
- A product is a combination of physical attributes e.g size and shape, image or quality customer purchases.

## **ELEMENTS OF A PRODUCT**

### **Ways how entrepreneurs make their goods unique and different.**

1. Branding. This involves the giving of a name to easily distinguish it from others.
2. Product design shape and model. These include colour safety and texture of the product
3. Packaging. This is the wrapping of the product in special containers to protect them against damage and contamination.
4. Labeling. This involves putting bar codes which can identify the product.
5. Product distribution. This involves making the product conveniently available to customers.
6. Blending. This involves the mixing of different colours, flavours to the product to make them unique.
7. Method of production. Here entrepreneurs use unique techniques in production to come up unique products.
8. Methods of sales promotion.

## **FACTORS CONSIDERED WHEN DESIGNING THE PRODUCT.**

1. The product attributes. Entrepreneurs use product attributes like colour shape texture which are appealing to their customers.
2. Government regulations. Entrepreneurs produce products which conform to the government regulations.

3. Needs of the market to be satisfied. Entrepreneurs produce products that meet customer need.
4. Availability of raw materials. Entrepreneurs produce products whose raw materials are readily available and at low cost.
5. Feasibility and viability of the product. Entrepreneurs produce only those products which yield sufficient returns and are generally accepted in the community.
6. Skills needed in the production. Entrepreneurs engage in the production of a product in which there is sufficient labour with the necessary skills
7. Nature of the packaging materials to be used. Entrepreneurs produce products which can easily be packed with environmentally friendly packaging materials.
8. Products of the competitors. The products produced are similar or even better than those of the competitors.
9. Machinery to be used in production. Products which are produced relate to the current state of technology.
10. The life span of the product. Entrepreneurs produce products which can stay longer before going bad.

### **Factors affecting production decisions**

The production decision is influenced by a number of factors which among others include;

1. Facilities and organization, this includes the nature of the layout and the structure of the enterprise
2. Sales potential of the enterprise, this is the estimate of how much to sell, why and when the customers will need them.
3. Money requirement. This involves making an analysis of how much will be needed to produce the desired product.
4. Sales promotion and growth. This involves determining which sales promotion methods to use and their impact on the demand of the product.

5. Labour requirement. This involves determining the number and type of workers that will be needed.
6. Source of supply. This analyses the nature and the source of raw materials to use in production.
7. The transport plans. This is the analysis of how the raw materials, workers and finished goods will be transported
8. Acceptability in the community. Here the entrepreneur determines the general feeling of the community towards the product.
9. The legal requirements. Here the entrepreneur understands the laws and regulations that must be observed while production of the product.

## **PURCHASING SKILLS**

Purchasing refers to process of obtaining production requirement in the right time, right price, right quality and right quantity.

### **Objectives:**

1. To procure right material
2. To procure materials in desired quantities
3. To procure material of desired quality
4. To purchase from reliable source
5. To pay less for materials purchased
6. To receive and deliver materials at right place and time

### **Principles of purchasing**

1. **Principle of Right Quality:** this implies that quality should be available, measurable and understandable
2. **Principle of Right Quantity:** the items bought must not be too much and not too low ,but just enough.
3. **Principle of Right Source:** items must be bought from the best supplier who is reliable and cost effective.

**4. Principle of Right Price:** The price can be kept low by proper planning and not by rush buying. Price negotiation helps to determine the right prices.

**5. Principle of Right Time;** the time should be appropriate to avoid overstocking and under stocking.

**6. Principle of Right Place:** is most convenient to him from the point of view of the location of store houses and/or plant location.

**7. Principle of Right Terms:** The terms and conditions governing the contract must be notified at the time of tendering.

#### FACTORS DETERMINING THE CHOICE OF THE SUPPLIER

1. Location of the supplier. Suppliers who are near are preferred to suppliers who are far from the business.
2. The lead time of the supplier. Entrepreneurs prefer suppliers who supply in the shortest time possible.
3. The term of sale of the supplier. Entrepreneurs buy from suppliers who have the best terms of sale. Eg credit sales, discounts.
4. The price charged by the supplier. Entrepreneurs buy from suppliers who sell at low prices.
5. Availability and reliability of the supplier. Entrepreneurs buy from suppliers who are always available and reliable as they can supply goods whenever need arises.
6. Reputation of the supplier. Entrepreneurs prefer to buy from suppliers whose reputation in the market is good for known quality and reliability.
7. The concern for quality. Entrepreneurs select suppliers who are known for offering quality goods.
8. Ease of communication to the supplier. Entrepreneurs select supplier who can be communicated too at any time.

#### Factors considered when selecting raw materials for production

- ★ The cost of raw materials

- ★ The quality of raw materials
- ★ The availability of the raw materials
- ★ The environmental effect of raw materials
- ★ Durability of raw materials
- ★ The amount of waste produced by raw materials.
- ★ The source of the raw materials.

### **Purchasing procedures**

1. Determining the business needs. This involves carrying out a survey to find out what customers need.
2. Identifying the potential supplier. This involves identifying which suppliers sell the required goods.
3. Contacting the suppliers. This involves sending letters of inquiries to all the potential suppliers.
4. Selecting the best supplier. This is done after comparing the quotations from all the potential suppliers.
5. Sending purchase order notes. This is done to place an order for the required materials or goods.
6. Checking goods on delivery. This is done to find out the goods damaged in transit or whether the delivery corresponds with order note.
7. Checking the invoice. This is done to establish whether the invoice corresponds with the delivery note and order note.
8. Making payments to the supplier. The supplier is either given cash or a cheque in payment for the goods supplied.

### **How to identify the potential suppliers**

- a) Asking business friends,
- b) Contacting organizations that support small businesses,
- c) Reviewing newspapers, magazines, trade journals and business directories
- d) Contacting entrepreneur in the same business,
- e) Searching on internet sites, to establish the companies that deal in material that the entrepreneur need to purchase

### **Activities involved in checking goods**

- a) Checking the delivery note with the order, to ensure that everything ordered has been received on time.
- b) Checking delivery note against dispatch note, to ensure that what has been delivery is what the supplier sent
- c) Checking the state of the product, to ensure that goods which are damaged during transit are excluded and the supplier is notified.
- d) Checking the quantity of supplies against the order
- e) Signing the delivery and goods received note, that is once all conditions have been checked the buyer signs the goods received note, it indicates that he/she has received goods ordered for

### **Question**

**You intend to start a maize milling industry in your local area.**

- a) Prepare programme for purchasing machinery for your business
- b) Develop guidelines to be followed when selecting supplies of machinery
- c) Write a purchase order for new machinery

### **Duties and responsibilities of the purchasing officer**

**A purchase manager is a person responsible for buying requirements in an organization. Below are the duties and responsibilities of a purchase manager.**

1. Negotiate and recommend execution of contracts for the purchase of supplies, services and equipment.
2. Act to procure for the business the needed quality in supplies, services and equipment at least expense to the business allocated budget.
3. Discourage uniform bidding and endeavor to obtain as full and open competition as possible on all purchases.
4. Prepare and recommend to the general manager for approval, rules and procedures governing the purchase of supplies, services and equipment for the business and revisions and amendments to such rules and procedures.
5. Keep informed of current developments in the field of purchasing, prices, market conditions and new products.
6. Prescribe and maintain such forms as are reasonably necessary to conform to the requirements of purchase and other rules and regulations;
7. Supervise the inspection of all supplies, services and equipment purchased to insure conformance with specifications;
8. Recommend to the store manager the transfer of surplus or unused supplies and equipment between departments.
9. Maintain a bidders' list, vendors' file, and such other records as are needed for the efficient operation of the purchasing function.

**Documents used in the purchase of goods**

**Letter of inquiry**

This is a document sent to the seller asking for information regarding the availability of goods for sale and the terms of sale.

KANYWAGI ENTERPRISES

P . O . BOX 123 KAMWENGE

TEL: 0781234567

**LETTER OF INQUIRY**

LOI NO. 002

DATE .....

TO .....

.....

Please quote us the price, terms of sale and delivery for the following items.



Quantity	Particulars	Unit price(shs	Total amount shs

Please note that items are needed urgently

Prepared by

.....

.....

.....

### Quotation

This is sent by the seller to the buyer replying an inquiry. It gives information about the goods available for sale and the terms of sale.

**KANYWAGI ENTERPRISES**

**P . O . BOX 123 KAMWENGE**

**TEL: 0781234567**

**QUOTATION**

No. 0255

date.....

To .....

.....

In response to your inquiry, we are happy to send you the following particulars.

Quantity	Particulars	Unit price(shs	Total amount shs
E & O E	TOTAL		

**The price quoted includes VAT**

Delivery in two days after receipt of order note

Prepared by

.....

.....

.....

**Purchase Order.**

This is a document sent to a seller by the buyer requesting to be supplied with goods

**FUFA METAL WORKERS**

P.O.BOX 0774

TORORO

**PURCHASE ORDER**

LPO

N002

DATE.....

TO.....

Please supply the following items.

Quantity	particulars	Rate (SHS)	Amount (shs)
Total			

Delivery date.....

Delivery value.....

Packaging.....

The order is valid for one week.

Prepared by;

Sign.....

Title.....

Name.....

**Goods delivery note.**

This is the document sent to the buyer along with the goods

**AGOLOT STEEL WORKERS**

P.O.BOX 0412  
TEL 041229990

**DELIVERY NOTE**

Delivery note No: 003  
LPO No: 002  
M/S

Date.....

Quantity	[Particulars	Rate (shs)	Amount (shs)

Delivered by ..... Sign .....

All goods are received in good order and condition

Received by ..... sign .....

**An invoice.**

This is a document sent when goods have been sold on credit. It indicates details of goods sold on credit and amount due

**Payment voucher.**

This is a document that clears and authorizes payments

**FUFA METAL WORKS**

P.O.BOX 0774

TORORO

TEL 041258943

**PAYMENT VOUCHER**

No 0091

Credit to M/S.....

A/C No.....

DATE.....

INVOICE No.....

Quantity	purpose	Rate	Amount
	TOTAL		

Amount in words.....

Prepared by.....

Authorized by.....

Received by.....

Sign.....

sign.....

Sign.....

**Cash receipt.**

This is a document issued by a seller to a buyer evidencing transaction of goods in business

<b>FUFA METAL WORKS</b>	
P.O.BOX 0774 TORORO TEL 041258943	
No. 473	Date.....
<b>CASH RECEIPT</b>	
Received with thanks from.....	
Cash/Cheque No.....balance.....	
SHS.	
<div style="border: 1px solid black; width: 200px; height: 20px; margin: 0 auto;"></div>	
WITH THANKLS	
SIGNATURE:.....	
<b>Once goods are sold not returnable</b>	For <b>FUFA Metal works</b>

**INVENTORY MANAGEMENT**

**Inventory management** refers to activities aimed at ensuring that the right quantity of stock is available at the right time in the right quality.

**Definition of inventory**

Inventory is stock of physical goods that contain economic value, and are held waiting for, packing, processing, transformation, use or sale.

**REASONS FOR INVENTORY MANAGEMENT**

1. To maintain adequate inventory so as to avoid disruptions in production process.

2. To reduce surplus stock. This reduces investment in unwanted levels of stock.
3. To meet demand fluctuations.
4. To ensure timely records of inventory of all items.
5. To minimize excess consumption of stock items.
6. To ensure that proper amount of inventory is available at the right.
7. To ensure timely replacement of inventory.
8. To allow flexibility in production and marketing.
9. To reduce stock losses while in stores. This could be through expiry, damage.
10. To avoid tying up a lot of working capital in inventory.
11. To maintain constant supply of goods.
12. To facilitate future consumption, sale or further processing/value addition

### **Different Types of Inventory**

1. Raw materials. These are goods which are not yet committed or put to the production process.
2. Work in progress. These are goods which are still in the production process and not yet complete.
3. Finished goods. These are goods which have completed the production process but not yet sold.
4. Office supplies. These are materials which support the production process such as stationery.
5. Spare parts to service production equipments and machines.
6. Defective products or defective parts and scrap.
7. Business equipments.

8. Goods under repair. These are goods which may have been damaged under the production process and are being repaired.

#### **Factors that Influences the Level of Inventory:**

1. The availability of the materials. Materials that are readily available can be stocked in low quantities.
2. The lead time. This is the time taken to receive the goods ordered. For short lead time, low quantities may be stocked.
3. Stock holding costs. This is the cost of keeping stock in the store. High stock costs results into stock levels.
4. The rate of consumption of materials. High consumption rate results into high stock levels.
5. Trade discounts allowed on purchase. High trade discounts on purchase results into high purchase and high stock levels.
6. Durability of the materials. Materials that can stay longer are stored in large quantities.
7. The availability and cost of transport. Presence and cheap means of transport leads to quick delivery and hence low stock levels.
8. Formalities involved in procuring inventories. Long procurement procedures leads to high stock levels.

#### **Characteristics of effective inventory management system**

##### **It should;**

1. Maintain sufficient stock of raw material in the period of short supply and anticipated price changes.
2. Ensure a continuous supply of material to production department so as facilitate uninterrupted production.
3. Minimize the carrying cost and time.
4. Maintain sufficient stock of finished goods for smooth sales operations.
5. Ensure that materials are available for use in production and production



services as and when required.

6. Ensure that finished goods are available for delivery to customers to fulfill orders, smooth sales operation and efficient customer service.
7. Minimize investment in inventories and the carrying cost and time.
8. Protect the inventory against deterioration, obsolescence and unauthorized use.
9. Control investment in inventories and keep it at an optimum level.

### **Importance of inventory management**

1. It's used to facilitate tracking and finding stock. Accurate records ensure that production is not affected.
2. It is used to reduce excessive investment in inventory, which is over investing in inventory that would hold business capital.
3. It's used to reduce a stock loss due to expiry, theft and damage.
4. It is used to promote flexibility in production. This is realized by avoiding over stocking and under stocking of inventory.
5. It's used to ensure timely replacement of raw materials for production of goods and sales.
6. It's used to relieve management of excessive supervision of inventory. This is because inventory management involve proper document is what has been received, what is in the store and what may be needed in future.

### **INVENTORY CONTROL**

Inventory control is concerned with the acquisition, storage, handling and use of inventories so as to ensure the availability of inventory whenever needed.

### **MEASURES TO CONTROL INVENTORY**

1. Providing a card for each item in the store
2. Filing all receipts associated with purchase
3. Making analysis of inventory records to avoid over stocking or under

stocking.

4. Taking physical count of inventory at least twice a year to establish the amount of stock available.
5. Providing a strong room for storage of inventory with lockable facilities.
6. Providing a book sign and out of stock in order to monitor stock movement
7. Making analysis of inventory control cards, to ascertain frequency of use or sale
8. Keeping valuable small items in a safe locker
9. Employing inventory manager to be in charge of inventory.

### **Tools used in inventory control**

1. Re order level. This is the minimum level below which stock should not fall before new orders are placed.
2. Lead time. It's the time it takes to receive goods ordered.
3. Working capital. This is the amount of money that is available for the day to day running of the business.

### **THE CONCEPT OF STORES MANAGEMENT**

These are the measures employed so as to protect goods from damage and loss.

A store is a place where stock items are kept before being used up in production or sold.

### **Tools for effective stores management.**

1. Physical stock counting. This is where the stock is physically counted to find out what is available in the store and cross check to what is expected to be there as per stock cards.
2. Stock reconciliation. This is where all records regarding what is in stock are updated and balanced to get a record of what is there.
3. Stock taking. This refers to the actual counting of stock available in the store.
4. Stock card. This is a document that contain details of the stock received and issued in and out of the store.
5. Stock requisition form. This is a document that show the details of stock

items that are being requested for out of the store..

SAMPLE OF THE STOCK CARD

MM ENTERPRISES

P.O. BOX 123 MUKONO

[TEL:041234567](tel:041234567)

**STOCK CARD**

Item name ..... Item no. 02333

card no. 01114

Stock level		Date of:		Quantity		Issued		Stock balance	remarks
Max	min	Receiving	issuing	Rec'd	Iss'd	By	To		

Authorized by

**SAMPLE OF THE STOCK REQUISTION FORM**

MM ENTERPRISES

P.O. BOX 123 MUKONO

[TEL:041234567](tel:041234567)

**STOCK REQUISTION**

NO .....

DATE .....

DEPARTMENT .....

DESCRIPTION	QUANTITY	RATE	AMOUNT

SUPPLIED FROM BIN NUMBER .....

ENTERED IN THE BIN CARD BY .....

AUTHORISED BY

.....

.....

.....

## **LABOUR REQUIREMENTS**

**Labour is human efforts both mental and physical used in production of goods and provision of services.**

Types of labour

Skilled labour

This is labour which have some special skills, knowledge and ability which is usually acquired and needed to do a particular task.

Semi skilled labour.

This is the labour which possesses particular skills in his area and can perform a job in his area, however requiring a lot of supervision.

Unskilled labour.

This is a worker who possesses no special training and whose work involves the performances of simple duties which require the exercise of little or no reasoning.

## **REASONS WHY LABOUR IS NEEDED**

1. To minimize damage to machines by using competent or qualified employees.
2. To manage business operations.
3. To facilitate the exploitation of the would be idle resources
4. To operate production machinery.
5. To match advancements in technology.
6. To tap missing skills and competences
7. To replace dead or retired employee to facilitate continuous production.
8. To increase productivity in the business by recruiting more workers.
9. To motivate workers by promoting them to higher positions.
10. To promote the reputation of the business through recruiting qualified workers.
11. To get the required workers with the required skills to do the job.
12. To combine with other factors of production so as to enable production.
13. To promote expansion of the business as recruitment of more workers leads to business growth.

## **FACTORS DETERMINING THE NUMBER AND TYPE OF WORKERS TO WORK IN AN ENTERPRISE.**

1. The type of skills required. Entrepreneurs recruit workers who have the skills needed to do a particular task.

2. The number of jobs available. Businesses which have a number of jobs which are vacant recruit many workers to fill those vacant posts.
3. The number of family members supporting the business. Businesses which have many family members supporting the business recruit few workers.
4. The cost of hiring labour in relation to business output and profitability. In businesses where the cost of hiring labour is high recruit few workers.
5. The level of technology used in the business. Businesses which use moderate technology and capital intensive technology recruit few workers since much of the work is done by machines.
6. The level of demand of business products. Businesses whose products have high demand recruit many workers.

#### FACTORS CONSIDERED WHEN RECRUITING WORKERS.

1. The experience of the employee. Entrepreneurs recruit workers who are experienced because they are efficient and require less time to train.
2. The level of education and training. Entrepreneurs recruit workers who are well educated with high levels of training.
3. The cost of the worker. Entrepreneurs recruit workers who are relatively cheap and affordable but efficient.
4. The health of the worker. Entrepreneurs recruit workers who are in good health conditions without serious chronic diseases.
5. The age of the employee. Entrepreneurs select workers who are above 18 years but not too old.
6. The marital status of the employee. Entrepreneurs prefer workers who are not married as these will be committed to their work yet others prefer those who are married.

#### PRODUCTION MACHINERY, EQUIPMENT AND FACILITIES

##### What is technology?

Technology refers to the know how, design and intellectual input of doing things.

## **Effect of technology in business**

1. It increases efficiency in an enterprise, for example marketing expenses and ordering for raw materials
2. The business is able to produce new products; this helps an enterprise to meet customer needs
3. It's used by entrepreneurs to out compete other businesses, e.g. quick response to customer orders makes them happy.
4. It leads to increased market for the business, for example e-marketing of goods on internet
5. Leads to more exploitation of resources. This is due to the expanded market that increases demand.
6. It helps to attract new customers, for example use of internet.
7. Technology facilitates planning and forecasting customer demand. This is through research via internet.

## **Types of technology**

1. Appropriate technology
2. Advanced or modern technology
3. Adapted technology
4. Transferred technology

## **APPROPRIATE TECHNOLOGY**

This is a type of technology which is suitable to the conditions of a country.

## **Characteristics of appropriate technology**

1. It's simple to operate, to use and maintain.
2. It's based on the local market, that is to say, it's designed to produce for local markets
3. It is flexible. it changes to meet changes in the market.

4. It is durable. It lasts longer.
5. It's efficient. That is it produces the desired products.
6. It's cost effective. It minimizes costs of production.
7. It is environmentally friendly. It does not harm the environment through pollution
8. It is available. It is within the locality.

### **Challenges hindering the development of appropriate technology in Uganda**

1. Weak which cannot stop duplication.
2. High desire for imported advanced technology.
3. Limited funds for financing research into the development of appropriate technology
4. Limited practical skills
5. Limited supply of raw materials, this due to low level of innovations and creativity
6. Bias towards goods produced by the help of appropriate technology. This makes it unpopular in the country

### **Examples of appropriate technology**

Ox plough

Locally made Milling machines

Doors and windows made out of scarp

Popcorn machines.

### **TRANSFERRED TECHNOLOGY(ADVANCED TECHNOLOGY**

This is a type of technology which is imported from developed countries to developing nations. This is currently in form of software, computers

#### **Advantages**

1. Its simplifies work



2. Leads to production of quality goods
3. More resources are exploited by the firm. This increases sales and profitability of the enterprise
4. It makes the local skills to be upgraded

### **Problems associated with advanced technology**

1. It's highly automated; this makes it expensive to access
2. Its more capital intensive in nature. it uses more machines.
3. It causes unemployment
4. The cost of maintenance is high; this reduces the profit level of the entrepreneur
5. It leads to rural urban migration; this is because the technology requires steady supply of power and good roads which are more in towns than in the villages.
6. It is complicated to operate, this leads to complexity of the enterprise

### **INDIGENOUS TECHNOLOGY**

This is a type of technology developed within the country and passed over the years from generation often with no development and improvements

### **FACTORS THAT INFLUENCE THE CHOICE OF TECHNOLOGY**

1. **Availability** of spare parts. Entrepreneurs prefer to use technology whose spare parts are readily available.
2. **Skilled man power requirement.** Entrepreneurs prefers to use technology whose skilled man power to operate it is readily available.
3. Government policy. Entrepreneurs prefer technology which is allowed by the government.
4. Market size. Businesses whose products are on high demand prefer

advanced technology.

5. Initial cost of the technology. Entrepreneurs use technology whose initial costs are relatively low.
6. Simplicity of the technology. Entrepreneurs select technology which is easy and simple to use.
7. Productivity and efficiency of the technology. Entrepreneurs use technology which leads to high productivity.
8. Flexibility of the technology. Entrepreneurs use technology that can be easily adjusted to meet changing market conditions.
9. Availability of the technology. Entrepreneurs use technology which is easily accessible and available.
10. Power consumption. Entrepreneurs select the technology which consumes low power so as to minimize electricity bills.
11. Impact on technology. Entrepreneurs prefer technology which is environmental friendly.

## **TECHNIQUES OF PRODUCTION**

### **LABOUR INTENSIVE TECHNIQUES OF PRODUCTION**

This is a technique of production where relatively more units of labour are used in the production process than any other factor input specially capital

#### **Advantages of labour intensive techniques of production**

1. It's cheap to maintain and acquire. That is to say workers can be obtained in the nearby areas.
2. The technique is flexible in use. It can be easily adjusted by training workers.
3. It increases community involvement hence acceptability of the business.
4. It leads to development of areas.
5. It minimizes the production costs. It is relatively cheap.

6. It reduces the cost of keeping scrap and spare part, this is because it cannot be stored and kept for future use.

### **Disadvantages of the labour intensive techniques of production**

1. It results into low productivity; this is due to the limited skills and capacity.
2. It leads to production of low quality products.
3. Strikes are common with labour intensive techniques.
4. It results into loss of market to the competing firms that may be more demand responsive to the market needs
5. In the long run its very expensive techniques of production, this is because it requires a lot of supervision and other labour costs.
6. Low quality products are produced; this is because the technique employs more of the available local semi and unskilled labour.
7. It's hard for an enterprise to standardize output using the technique; this is due to limited skills.
8. The technique is slow and time consuming which leads to low output.
9. Under utilization of the enterprise resources, this is due to limited capacity.
- 10.

### **CAPITAL INTENSIVE TECHNIQUE OF PRODUCTION**

This a method of production which employs relatively more units of capital units especially machines than other factor input especially labour.

#### **Advantages of capital intensive technique of production**

1. Improves the quality of output produced by the enterprise.
2. Leads to development of skills of workers, this is due to training of labour in the different production activities.
3. Its minimizes losses associated with workers strikes and destructions.
4. The technique saves time, where by machines do the work faster and more efficient.

5. Leads to increased production of output, this is due to the use of modern machines.
6. It's easy to standard output produced by machines.
7. The technique is suitable where labour is very expensive to acquire and maintain

### **Disadvantages of capital intensive techniques of production**

1. It's expensive to acquire and maintain.
2. It leads to over production, this cause wastage of resources
3. The technique requires advanced skills, this increases the cost of training or hiring experienced personnel.
4. In case of loss, the entrepreneur suffers huge costs; this is in terms of repayment and maintenance
5. The technique is based on electricity, this increases the operating costs of the enterprise

### **SELECTION OF MACHINERY EQUIPMENT AND FACILITIES**

#### **Machinery**

This refers to a group of machines in general

Machine refers to a device in which each part work together with other to perform a function

#### **Equipment**

This refers to the devices needed to do some work.

#### **Tools**

This is any instrument or apparatus that help in doing work e.g. hammer, axe etc

### **Factors considered when selecting machinery, tools and equipment**

1. Cost of the machinery. Entrepreneurs prefer machinery which is cheap.
2. Capacity of the machinery. Entrepreneurs select machinery with high production capacity to meet demand.
3. Ease of maintenance and repair. Entrepreneurs select machinery which can easily be repaired and serviced.
4. Life span of the machinery. Entrepreneurs prefer machinery which can stay longer.

5. Guarantee given by the manufacturer. Entrepreneurs use those machines where the manufacturer gives guarantee to prove their efficiency.
6. Flexibility of the machines. Entrepreneurs select machines which can easily be adjusted to meet the market demands.
7. Productivity and efficiency of the machines. Entrepreneurs select machines which are efficient and can lead to high productivity.
8. Availability of complementary machines. Entrepreneurs select machines whose complementary machines are readily available.
9. Source of the machinery and equipment, an entrepreneurs always select machinery from a reliable source
10. The ease of use of machinery, always an entrepreneur selects machinery which is simple to use as compared to difficult ones

### **Question**

**You are operating a business which deals in the milling of rice in your home area**

- a) Draft a service schedule to be used in servicing of machines
- b) Write the machine servicing code of service
- c) Prepare guidelines for selecting machinery for use in your business
- d) Draw a plant layout of your business
- e) Describe the layout of our business
- f) Prepare a job description and job specification for a maintenance officer

### **PRODUCTION EQUIPMENT AND FACILITIES**

These include

Plant layout, this refers to the arrangement of buildings, machines and operational facilities so as to maximize space and increase productivity of the enterprise.

#### **Elements of good plant layout**

A good plant layout should portray the following elements

1. Security facilities
2. Packing yard

3. Administration and reception
4. Storage facilities for raw materials and final products
5. Space required for movement and provision for emergency outlet
6. Space for future expansion
7. Provision for production
8. Provision for waste disposal
9. Provision for power sources
10. Residential areas for workers
11. Recreation facilities e.g. field for games

### **Advantages a good plant layout**

1. It increases production. It makes work easier.
2. It cuts down on expenses by minimizing wastage.
3. It improves on the working conditions of workers.
4. It increases safety of workers, since workers have more room.
5. It improves on the way materials are handled.
6. It reduces space wastage, as each part of the floor space is used in the best way possible.

### TYPES OF PLANT LAY OUT.

- Manufacturing unit
- Trading unit
- Service unit

### FACTORS CONSIDERED WHEN DESIGNING PLANT LAYOUT.

1. Type of machinery to be used. Machines that are for general purpose are

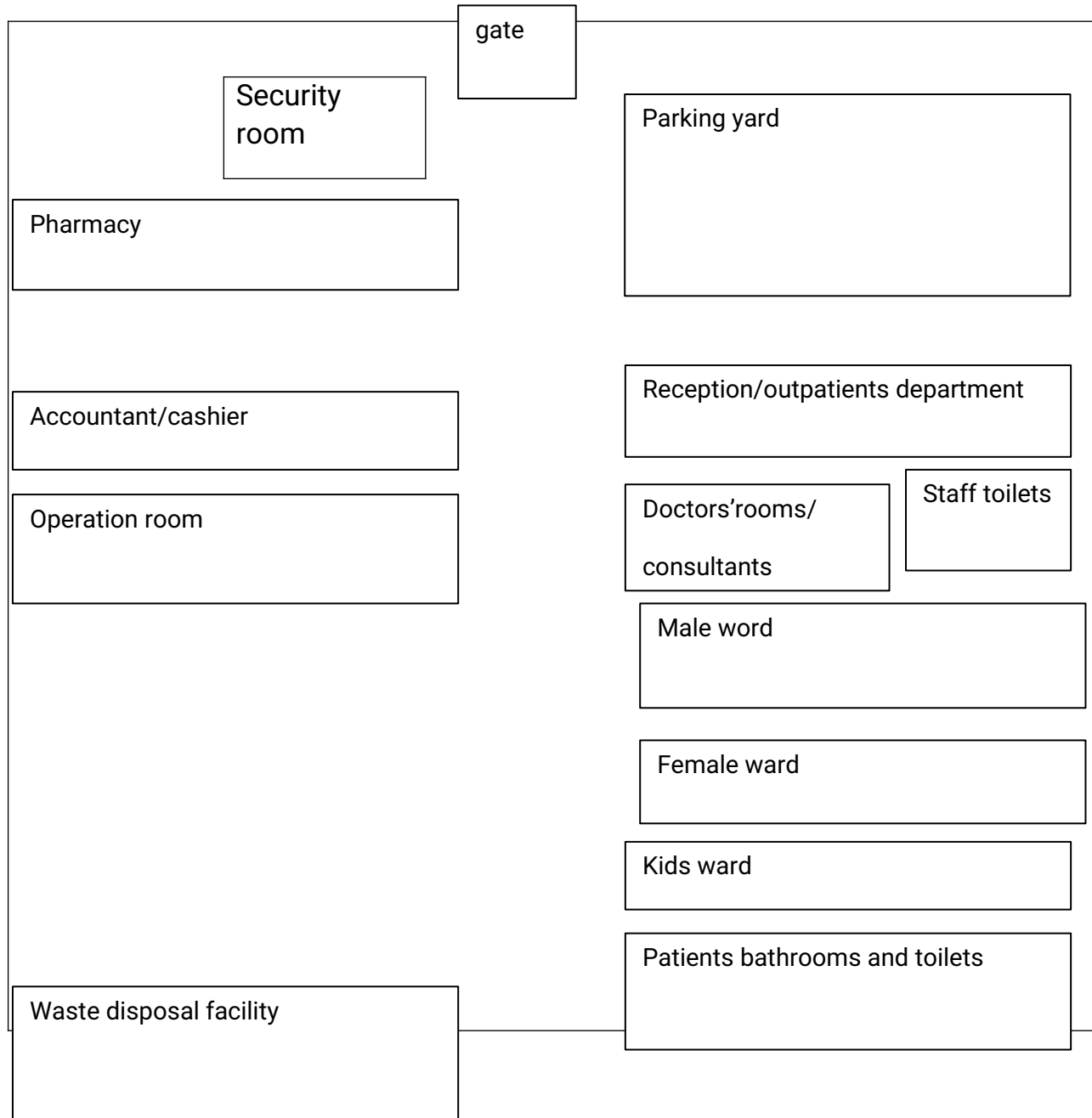
arranged as per process layout while machines that perform specific tasks are arranged according to product layout.

2. Nature and size of the factory. This determines the size of the floor area.
3. Nature of the products to be produced. For uniform products, process layout is suitable.
4. The plant environment. There must be good lighting and ventilation.
5. Machine repairs and maintenance. There must be enough space for repair and maintenance of machines.
6. The human needs. There must be facilities like toilets, rest/changing rooms for both males and females.

#### ELEMENTS OF PLANT LAYOUT

1. Security office/section. This is where the security officers operate from.
2. The parking yard. This is space where vehicles are parked.
3. Warehouse. This is the space where finished goods or raw materials are kept.
4. Welfare facilities. These are rooms where workers do their personal activities.
5. Generator room. This is where the generator is kept.
6. Waste disposal section. This is where the waste materials are disposed off.
7. Receiving and dispatching section. This is where raw materials are received and orders are executed from.
8. Processing section. This is where processing takes place.
9. Reception/administrative offices. This is where management officers operate from.

## Sample of a plant layout for a medical center



### Plant capacity

The production of goods or service depends on the capacity of the machine used to produce it the capacity is of two nature;

Feasible normal capacity, this refers to the volume or number of units that can be produced during a given period



Normal maximum plant capacity, this is the capacity that is technically attainable and corresponds to the installed guaranteed capacity by the supplier.

## **PRODUCTION PLANING AND CONTROL**

### **Production planning**

Production planning means to fix the production goals and to estimate the resources which are required to achieve the set goals. This is inbuilt system in the production plan. Or

**Production planning** is concerned with deciding in advance what is to be produced, when to be produced, where to be produced from and how to be produced. It involves foreseeing every step in the process of production so as to avoid all difficulties and inefficiency in the operation of the business

### **Objectives of Production Planning**

1. To ensure safe and economical production process
2. To effectively utilize plant to maximize productivity
3. To maximize efficiency by proper coordination in production process
4. To ensure proper delivery of goods
5. To place the right man for the right job, at right time for right wages.
6. To minimize labor turnover
7. To reduce the waiting time

### **Importance of production planning**

1. It results in effective utilization of resources.
2. It ensures a regular and steady flow of production.
3. It ensures optimum inventory is maintained, this prevents over-stocking and under-stocking .
4. It helps to coordinate the activities of different departments.
5. It minimizes wastage of raw materials.
6. It improves labour productivity, through maximum utilization of manpower.
7. Production planning helps to give a regular supply of goods and services to the consumers at fair prices. It results in consumer satisfaction.

## **Production control**

This is the Systematic planning, coordination, and directing of all manufacturing activities and influences to ensure having goods made on time, of adequate quality, and at reasonable cost

### **Importance of production control**

1. More Effective Use of Equipment: It provides information about production equipment.
2. It helps in reducing idle time i.e. loss of time by workers waiting for supply.
3. It ensures even flow of work and avoids rush orders.
4. It leads to Good public image due to proper organization.
5. It leads to increased sales and increased profits.
6. It leads to Lower Operating Costs,

All the above are inbuilt system of a production plan. Which has the following elements

1. Raw materials
2. Labour requirements
3. Costing
4. Plant location
5. Office space
6. Working schedules
7. Waste disposal management
8. Packaging

## **QUALITY MANAGEMENT**

This refers to Management activities and functions involved in the determination of quality policy and its implementation through means such as quality planning and quality assurance (including quality control).

## **Benefits of quality management system**

1. It helps to meet the customer's requirements, which helps to instill confidence in the organization, in turn leading to more customers.
2. It ensures that organization's requirements are realized, which ensures compliance with regulations and provision of products.

3. It helps to coordinate and direct an organization's activities to meet customer and regulatory requirements .
4. It helps to communicate a readiness to produce consistent results; this minimizes mistakes and reduces costs.
5. It ensures that processes are defined and controlled; this improves the organization's offerings.
6. It provides a work atmosphere that nurtures a work ethic and allow workers to achieve their potential as workers as well as humans

### **Definition of quality**

quality refers to the ability of products to meet the customer satisfaction.

### **Elements of quality**

1. The environment
2. Packaging materials used
3. Technical specifications
4. Raw materials used
5. Conformity of the product to the set standards of the country

## **ELEMENTS OF QUALITY MANAGEMENT**

### **1 Quality control**

This refers to the process of regular checks through inspections to ensure that the product quality matches laid down standards of performance. Or these are the operational techniques and activities that are used by the enterprises to fulfill the requirements of quality. Or

Quality control is that part of quality management that focuses on fulfilling quality requirements of an enterprise.

1. Marketing research
2. Product design
3. Purchasing of raw materials
4. Production of a product
5. Packaging and storage

6. Sales and distribution
7. Installation and technical assistance

### **Benefits of quality control**

1. It improves the brand image of the enterprise.
2. It promotes entrepreneurs` image and reputation in the market. .
3. It helps the enterprise to determine the product cost and price
4. It enable the enterprise to comply with standards which are set by the govt.
5. It minimizes wastage in the production,
6. It ensures customer satisfaction; this is through providing goods of good quality and of high value.
7. It provides a strong competitive advantage to an enterprise
8. It leads to an increase in the market share of the enterprise.
9. Staff pride and satisfaction.

### **Objectives of quality control**

1. To improve the brand image of the business.
2. To reduce the costs of production.
3. To create customer loyalty.
4. To comply with the quality standards.
5. To out compete the competitors in the market.
6. To facilitate the standardization of business products.
7. To produce quality products
8. To determine prices and costs at a competitive level.

### **2 quality planning**

This involves the establishment of measures that an enterprise is to do in order to achieve quality.

### **3 Quality assurances**

This refers to the planned and systematic activities implemented within the quality system and demonstrated as needed to provide adequate confidence that an entity will fulfill requirements of quality .

#### **4 Quality systems**

This refers to aggregate of the organizational activities, incentives, plans, policies, procedures, processes, resources, responsibilities, and the infrastructure required in formulating and implementing quality management.

#### **5 quality policy**

this refers to the top management's expression of its intentions, direction, and aims regarding quality of its products and processes.

#### **6 .Total quality management**

This refers to a holistic approach to long-term success that views continuous improvement in all aspects of an enterprise as a process

#### **Elements of total quality management**

1. Ethics-Ethics is the discipline concerned with good and bad in any situation.
2. Integrity – Integrity implies honesty, morals, values, fairness, and adherence to the facts and sincerity. The characteristic is what customers (internal or external) expect and deserve to receive, this promote TQM
3. Trust, Trust fosters full participation of all members. It allows empowerment that encourages pride ownership and it encourages commitment
4. Training – Training is very important for employees to be highly productive. Supervisors are solely responsible for implementing TQM within their departments, and teaching their employees the philosophies of TQM
5. Teamwork – With the use of teams, the business will receive quicker and better solutions to problems. Teams also provide more permanent improvements in processes and operations.
6. Leadership – It is possibly the most important element in TQM. It appears everywhere in organization. Leadership in TQM requires the manager to provide an inspiring vision, make strategic directions that are understood by all and to instill values that guide subordinates.
7. Communication –Communication means a common understanding of ideas between the sender and the receiver. The success of TQM demands communication with and among all the organization members, suppliers and customers. Supervisors must keep open airways where employees can send and receive information about the TQM process.

8. Recognition – As people are recognized, there can be huge changes in self-esteem, productivity, quality and the amount of effort exerted to the task at hand.

### **Factors that influence quality standards in an enterprise**

1. The technical specification regarding quality. Entrepreneurs who observe the technical specifications regarding quality produce quality goods.
2. The nature of raw materials used, using quality raw materials with the a good quality leads to quality production, however using poor quality of raw materials leads to production of poor quality products.
3. The quality of machinery and equipments used, using quality and efficient machinery ensures that quality products are produced.
4. The nature of packaging materials used, use of good packaging materials leads to good quality production.
5. The quality of labour force employed, using highly skilled workers with experience leads to production of good quality products. On the other hand , using unskilled workers leads to poor quality output.
6. Storage of goods and raw materials. Having proper storage facilities for both raw materials and finished goods leads to good product quality. On the other hand, poor storage facilities leads to poor quality output.
7. The organizational arrangement of the enterprise, good plant layout ensures leads to proper coordination of work and hence quality production unlike poor plant layout which leads to poor quality output.
8. The nature of the working environment. Conducive working environment leads to better quality production unlike unfavourable working environment which leads to poor quality output.
9. Monitoring and supervision. Proper monitoring and supervision of work leads to good quality output. On the other hand poor supervision leads to poor quality output.
10. Cleanliness of the workarea. Production carried out in a clean environment leads to good quality products. On the other hand production carried out in dirty environment leads to poor quality products.
11. The product packaging. Good product packaging leads to good quality output.

### **Ways of ensuring quality product**

1. By observing the quality standards set by the government or enterprise.
2. Purchasing and using high quality raw materials
3. Motivating employees to keep their morale high towards quality production
4. Recruiting skilled workers who are well experienced.
5. Operating in a clean and hygienic environment
6. Carrying quality market research about the most efficient methods of production and customer needs
7. Implementing quality policy of the enterprise
8. Monitoring and supervising workers and the production process
9. Observing the technical specification regarding quality
10. Ensuring proper packaging of the product to avoid contamination.
11. Training workers to acquire skills that promote quality
12. Ensuring proper storage facilities for finished goods and raw materials.

### **Perception about quality**

This may be based on the following;

#### **CUSTOMER MISCONCEPTION ABOUT QUALITY.**

1. Brand name, this where customers judge the quality of the product basing on the brand name e.g. nokia phone are of better quality than techno phones
2. Origin of the product, there is a perception that quality cars are from German than Japan
3. Customers` points of view, consumers have different tastes and therefore perceive quality of products differently
4. Expiry date, customers perceive products with expiry date to be of high quality and those without to be of poor quality
5. Product price, customers perceive highly priced products to be of good quality than those with low price to be of poor quality
6. Quality is only in big enterprises and companies
7. Customer believe that getting a product exchange in case of product failure is quality, however, quality goes beyond that

#### **Important aspects in production of goods and services**

1. **Quality control**
2. **Technology and technical skills**
3. **Production process**

## Questions

### **You own salon in your local is whose quality of service have decline**

- a) Draft guidelines for ensuring quality in your salon
- b) Develop a quality slogan for your business
- c) Write memo to all your workers inviting them to come and attend one day training on the topic enhancing quality for competitive advantage

### **Measures to reduce production costs**

1. Ensuring properly production process, this is done so as to reduce the repetition of work.
2. Ensuring proper storage of raw materials and finished goods to prevent damage and theft.
3. Studying the production methods and techniques used in production to ensure that they are effective and efficient
4. Providing support facilities. these include tools and fixtures so as to aid handling of work.
5. Storage bins for material should be used, this is to reduce on wastages and effects of mixing
6. Studying the lead time, this is to ensure that materials are to received on time.
7. Specifying duties and responsibilities, this ensures easy coordination and minimizes conflicts at work
8. Carrying out proper accountability of enterprise funds, this minimizes unnecessary expenditures.
9. Buying raw materials and other supplies from cheap sources.
10. Ensuring quality control
11. Recycling products and raw materials that have been damaged in production process.
12. Laying off redundant workers and workers whose tasks can be combined with others.
13. Buying in bulk so as to minimize on transport and save in form of trade discounts.

### **You own a business that deals in making phone repairs in your home area**

- a) Prepare guidelines for minimizing costs in your business
- b) Write an invoice to a customer you supplied goods worth 200 millions
- c) Draft guidelines for handling and storage of machines and equipments
- d) Write guidelines for storage of materials in your business

## **WORK PLACE MANAGEMENT**

A work place refers to an area or place where production of goods or services take place e.g. classroom in a school, office in an organization.



## **Elements**

Material handling and storage  
Work station  
Productive machine handling and safety  
Control and store of hazardous chemicals  
Maintenance of lighting facilities  
Welfare facilities  
Maintenance of business premises  
Work organization

### **Material handling and storage**

Materials used in a production process need to be well handled and stored if the productivity of an enterprise is improved. This is done in order to;

1. Reduce on material damage and material waste
2. Reduce time wastage
3. Regain space for reuse
4. Reduce on accidents

#### **Through the following ways;**

1. Separation of storage facilities for various materials, semi finished products, finished product
2. Provision storage facilities in form of a room, cupboards
3. Removing items that are not frequently used from the store,
4. Providing facilities for handling and removing either product or raw materials from one place to another, e.g. use of cranes

### **Work station**

It is where production of goods and services actually takes place e.g. classroom in a school, office in an organization kitchen in a hotel. To achieve efficiency the following is done;

1. Providing furniture of a convenience height, e.g. chairs, benches etc
2. Providing machines that can be used to ease work e.g. lifts to reduce efforts of works
3. Providing a stable work surface at the work station
4. Ensuring that the station is maintained clean e.g. by sweeping and mopping on a daily basis.
5. Provision of storage facilities for workers property e.g. cupboards, room for changing etc
6. Providing devices to help in performance of duties, e.g. projectors this make work enjoyable hence increased productivity

### **Production machine handling and safety**

In order to ensure efficient use of machines, they must be handled and stored well in so as to;

1. Reduce the cost of replacement

2. Reduce repairing expenses
3. Increase the life span of the machine
4. Avoid damage associated with improper handling and usage of machines

#### **Ways of proper machine handling and safety.**

1. Providing safety devices for any part of the body which is exposed to any danger while handling machines
2. Attaching proper write up to moving machines and power point e.g. avoid touching this machine while running, "danger".
3. Redesigning of guards that interferes with proper visibility of work.
4. Encouraging workers to read and understand manual instruction provided before using the machine.
5. Providing caution on the use of the machines
6. Making repairs to any part of the machine that is broken in order to avoid further implications
7. Storing the machine in cool places to avoid rusting
8. Employing well qualified personnel to use and store the machine.
9. Providing guards to moving parts of the machine.
10. Providing facilities on which the machine is put, to avoid being in contact with the soil
11. Cleaning the machine before reuse
12. Oiling machines always
13. Providing a shade for machine storage

#### **Control and store of hazardous substances**

These are ingredients that need to be properly kept to avoid the after effect, to ensure proper use and storage; the following is done:

1. Substituting hazardous substances with chemicals that are less harmful
2. Ensuring that all chemicals are properly covered
3. Ensuring that workers who handle these chemicals always wash their hands with soap before eating or taking a drink
4. Providing changing clothes to workers
5. Ensuring that workers read the instructions before use of chemicals
6. Improving on the ventilation system in the storage
7. Training and retraining of workers on the use of protective gears
8. Providing workers with adequate and appropriate equipments like masks foot wear and gloves

#### **Maintenance of lighting facilities**

In order to keep the organization supplied with enough lights, there is need to maintain the system .this can be done through the following;

1. Selecting and using of bright white colours while painting walls
2. Using plastic iron sheet in order to benefit from natural light

3. Providing specific lighting and adjustable lamps at the work station
4. Cleaning of the ceiling boards always
5. Replacing bulbs regularly
6. Providing adequate ventilation and window and always kept open to benefit from the natural light,

### **Maintenance of business premises**

This is done in order to ensure that an enterprise increases its efficiency. This is through the following ways;

1. Redesigning the business premises in order to suit the nature of work
2. Providing clear sign post indicating the main services of the business
3. Providing ceil boards in order to improve on the heating
4. Providing clear passages and properly marked with warnings such as keep the environment clean
5. Providing enough protective gears such as fire extinguishers

### **Work organization**

This is concerned with management of work in work place .properly management of work station ensures increased productivity, this is achieved in the following;

1. Eliminating some tasks
2. Frequently changing tasks of workers in order to keep the alert
3. Keeping records of workers whenever a performance appraisal is carried out
4. Rewarding workers who have performed well
5. Training and retaining of workers in order to acquire new skills and knowledge necessary to achieve efficiency
6. Rearranging the layout and orders of operation to improve on the production flow

### **COSTS OF PRODUCTION**

These are the expenses incurred when producing goods and services

#### **Classification of production costs**

**Prime costs**, these are expenses that directly chargeable for the production of a good or service

#### **Examples include;**

1. Direct material costs
2. Direct wages
3. Work costs, these are expenses necessary to produce various goods and services
4. Expenses include;
5. Work management expenses,
6. Technical expenses,

7. Supervisory expenses,
8. Rent,
9. Charges for power,
10. Depreciation allowance,

**Total manufacturing costs**, these are total expenses incurred in the production of goods and services.

It includes prime cost and work management expenses

**Administration expenses**, these are the costs or expenses incurred by the business on routine basis in order to support the production and marketing activities

**Examples of administration cost include;**

1. Stationery costs e.g. pens, envelopes
2. Transport expenses for goods purchase
3. Rent expenses
4. Communication expenses e.g. air time
5. Staff meals and welfare
6. Electricity expenses
7. Cleaning expenses e.g. on brooms and brushes, soap etc
8. Security expenses on hiring watchmen or security personnel
9. Gross costs this is total sum of prime costs, manufacturing expenses, work costs and administration and distribution expenses

**NB. Make a cost statement**

## METHODS OF COSTING

Different industries follow different methods for ascertaining costs of their products.

The method selected and used depends on;

1. The nature of the products or services provided by the business,
2. The stages or processes products or services go through before they become complete products,
3. The level of activity or output,
4. The nature of installation and maintenance costs required,
5. The time required to complete the product.
6. These methods include;

### Job costing

This is a method of costing that specializes in ascertaining the cost of the single and unique job that takes a short period of time to manufacture. This method is adopted where industries and companies have heterogeneous output (different output) where a number of products are produced in a discontinuous manner from another e.g. printer, carpentry etc. This is a form of specific order costing and used when a customer specifies the type of job to be done and is in short period of time

**Contract costing**, this is method of costing which is used to cost contract works like in construction, engineering etc where each job is treated as separate cost unit.

Batch costing, a batch is a large combination of standard items. Under this method, batch of similar products is treated as a separate unit for the purpose of ascertaining costs.

It's give by; 
$$\frac{\text{total cost of batch}}{\text{Number of items in a batch}}$$

**Process costing**; this is a type of costing used in industries where production is carried out on stages or process before becoming a finished product. This common in industries like textiles, chemicals, oil etc

**Service costing**; this method is used in those industries which render services e.g. supply of water organization

Operation costing, this is method of costing which is applied in industries dealing in heavy works e.g. mines cement works etc. under this system cost sheet is prepared to find out cost per unit and profits or loss production.

**Multiple costing**, this is a combination of two or more methods of costing. It's commonly used when a product under go several processes.

### **Ways of minimizing costs and maximizing profits in an enterprise**

Entrepreneur can minimize costs and maximize profits in the following ways;

1. Paying low wage to labour
2. Making labour work for long hours for low pay
3. Reducing fringe benefits for labour e.g. allowances like transport, medical etc.
4. Buying raw materials from the cheapest source
5. Avoiding unnecessary costs e.g. fines to the business
6. Employing few workers
7. Updating technology to avoid material wastage
8. Maintaining quality of the enterprise products to avoid losing customers

### **Ways of maximizing revenue;**

1. Charging a high price for the product or services
2. Minimizing possibility of giving credits to customers
3. Keeping a motivated sales force in order to maintain sales of an enterprise
4. Keeping a close watch on the market needs in order to develop new products that are highly demanded and priced

Question

**You own farm which is involve in the rearing of goats and cereals on large scale with many workers**

- a) Develop a job cost sheet to be used in your business
- b) Write policy guidelines for minimizing costs in the business
- c) Explain the administrative costs of the business

## **SPECIFIC BUSINESS CONTROL SYSTEMS**

Mechanism for controlling business assets

### **1. Cash**

This is one of the liquid assets of the business which is highly valuable .the following can be used to protect cash in an enterprise;

1. All cash received should recorded immediately on cash received slip
2. There must be daily cash reconciliation with cash slip and cash register
3. Providing a private office in case the business receive large sums of money
4. All cash received should taken to the bank, to avoid accumulation of cash to the business premises
5. Employing one person to be in charge of receiving and paying out cash
6. Providing a strong room to keep cash and lockable facilities.
7. In case of transporting large sums of money from one point to another, armed security personnel should be employed.
8. Keeping the receipts and payment vouchers in safe locker and keys kept by one person.
9. Cash payments must be authorized by one person.
10. Checking and verifying the paper notes to avoid receiving fake notes.

### **2. Accounts receivable or debtors,**

These are individuals or institutions that an entrepreneur demand money. The following measures can be used to minimize and control debtors;

1. Maintaining a file of accounts receivable card for each account
2. Making analyses of accounts receivable on a daily basis
3. Writing letters to remind those who are slow in payment
4. Giving cash payment to encourage customers to pay in cash
5. Maintaining good relationship between debtors and the business

### **3. Inventory of merchandise for sale or raw materials,**

These are input bought to further production of goods and services or for resale to have control, the following ways can be used;

10. Providing a card for each item in the store
11. Filing all receipts associated with purchase
12. Making analysis of inventory records to avoid over stocking or under stocking.
13. Taking physical count of inventory at least twice a year to establish the amount of stock available.
14. Providing a strong room for storage of inventory with lockable facilities.
15. Providing a book sign and out of stock in order to monitor stock movement
16. Making analysis of inventory control cards, to ascertain frequency of use or sale
17. Keeping valuable small items in a safe locker

18. Employing inventory manager to be in charge of inventory.

#### **4. Physical assets,**

These are possessions of the business that stay longer in the business once they are purchased. The following ways are used to have control over them;

1. Maintaining a file of information on all physical assets showing when it was constructed or purchased including a file of expenditures
2. Maintaining a depreciation schedule and method used to calculate the rate of depreciations
3. Maintaining up-to-date asset register in the business
4. Providing a store where assets like future office equipments are to be stored
5. Taking a physical count of assts to determine the number and the value per year
6. Appointing an officer to be in charge of all physical assets in the business,

#### **5. Customer merchandise**

These can be controlled by;

1. Keeping a file indicating that date on which customers work was completed
2. Making a phone call or writing reminder letter to customers
3. By ensuring that cash is received before releasing goods
4. Maintaining a record of customer payment in case of installment selling
5. Reconciling the amount paid with what the customer is to pay

### **INTERNAL CONTROL SYSTEMS IN SMALL BUSINESSES**

Control over business operation may be exercised in the following areas;

#### **1. Purchasing**

2. Buying from at least two suppliers to keep a check on the prices
3. Establishing good relationship with suppliers so that in case of any event, the business is not affected by not having the raw material supplies
4. Maintaining up to date information regarding purchase items through reading of trade magazines, visiting trade shows, etc to determine the new products that is on market
5. Using information provided by the sales team to determine the customers' response on the products produced so that incase of any change, new raw materials are bought
6. By appointing one individual to be in charge of purchase and production

#### **2. Quality control**

To ensure that control is maintained, the following can be done to have control;

1. Spot checking on the merchandise so as to be sure that it is up to the set business standards
2. By observing the merchandise to establish whether they confirm to the set

standards

3. Making market surveys on customers from time to time to determine whether they are satisfied at the level of product quality and service
4. Discussing the merchandise returns with customers to determine the source of their discontent so as to address the problem

### **3. Financial analysis**

1. Dividing the business into logical profit centers
2. Establishing a record keeping systems that allows the entrepreneur to separate income from purchases so that analysis is made
3. Keeping a record of all sales and purchases in the business so that appropriate price is determined
4. By increasing sales and reducing cost through elimination of unprofitable products
5. Using ratios analysis to analyze the profitability of the business
6. Comparing the operating and profit level of similar business to find out areas of improvements.

### **4. Cost controls**

This is done through the following ways;

1. By analyzing the efficiency of labour to establish whether the workers are performing up to their ability
2. The payment should reflect the output e.g. paying higher wages to more experienced workers
3. By reducing all fringe benefits attached to jobs
4. Carrying out market research to get to understand what customers want and how much they are willing to pay
5. Continuously analyzing the operating expenses to find ways of reducing costs through more efficient tools
6. Using more machines than labour to minimize time wastage and salaries
7. Making record of worker`s output to avoid work back log that may cause employing more people
8. Making workers to work for long hours for low pay

### **5. Sales**

This is to be maintained through the following;

1. Setting sales quotas to be achieved in a given period of time.
2. Checking on the effect of seasonal variations on the enterprise`s sales so that the variation is minimized.
3. Utilizing the enterprise`s facilities throughout the year by adopting production diversification.
4. Adverting enterprise products to increase sales through market expansion
5. Watching the action of the competitors so that in case of any price variation, the enterprise is able to respond positively.

### **6. Pricing**

To effectively control prices and maintain profit level of the enterprise the



following is done;

1. Setting a price which is high enough to provide a gross margin that allows the enterprise to meet the expenses.
2. Watching the price strategies of the competitors so that the enterprise sales is not affected
3. Making customer surveys to establish which price is affordable
4. Making Study of goods that are demanded seasonally, so that efforts are made to get rid of them before they expire,
5. Studying the production expenses so that the price determined is able to cover the expense of producing a unit.

#### **6. Employee morale**

This is the pride that employees have towards an enterprise; hence to maintain their morale to high, the following can be done;

1. Open communication so that employee problems can be understood and addressed
2. Sharing employee concerns together
3. Planning together with employees about the enterprise activities
4. Appreciating employees that have contributed positively to achieving enterprise goals
5. Encouraging employees to work in teams
6. Involving employees in decision making

## **TIME MANAGEMENT FOR INCREASED PRODUCTIVITY**

Definition of time management

Time Management refers to making the best use of time as time is always limited.

### **Importance of time management**

Time Management plays a very important role not only in organizations but also in our personal lives.

1. Effective Time Management boosts an individual's morale and makes him confident.
2. Effective Time Management helps an employee to reach the pinnacle of success quickly and stay firm at the top for a longer duration.
3. Time Management makes an individual punctual and disciplined.
4. It facilitates Setting of Goals and Objective that can be achieved in specified period of time,
5. It makes an individual to work hard; this is achieved through Setting Deadlines
6. It makes delegation easy, this ensures that activities are performed with in the required time.

7. It facilitates Prioritizing of Tasks in an enterprise, this is done according to their importance and urgency.
8. It instills the culture Spending the right time on right activity,
9. It makes individuals who accomplish tasks on time less prone to stress and anxiety.

### **SKILLS NECESSARY FOR EFFECTIVE TIME MANAGEMENT:**

1. Stay Organized, The workstation must be kept clean and organized. Keeping important files organized helps you retrieve them immediately
2. Learn to Prioritize. This is done by Preparing a "To Do" List.
3. Be Punctual and Disciplined, Being punctual helps one to complete tasks way ahead of deadline.
4. Take Ownership of work; do not work only when your boss is around.
5. Be a little Diplomatic; do not accept everything which comes your way..
6. Be More Focused. Do not waste time by loitering and gossiping around.

### **Time Management techniques**

1. Identify goals. Set targets to be achieved.
2. Establish a deadline, fix time to accomplish tasks.
3. Take notes all the time. Record thoughts and ideas.
4. Be self motivated. Don't wait for orders to do what you have to do.
5. Be goal oriented; focus on activities which lead to success.
6. Work in block time. Do main tasks in blocks of three or two hours.
7. Ask for details of work before starting to do work
8. Always being action oriented, this is done by outlines procedures of the task to be performed.
9. Being reflective, that is the act of learning from the past, present and predicting what the future activities may be.
10. Plan in detail for the next day activities,

### **EFFECTIVE TIME MANAGEMENT /CONTROL**

1. Prioritizing tasks depend on their importance.
2. Spending time planning and organizing.
3. Using a to do list. This is a list of items to do.
4. Setting goals . these give you direction.
5. Considering your biological prime time. Know your best time of the day.
6. Learning to say no. reject some useless things.
7. Doing the right things right. Do what you do perfectly.
8. Rewarding yourself. Celebrate every goal achieved.

9. Eliminating the urgent. Do the urgent things first.

## **WAYS OF HOW ENTREPRENEURS WASTE TIME**

### ***INDICATORS OF WASTING TIME***

1. **Repeating the same things over and over,**
2. **Trying to reinvent the wheel,** hanging onto projects or products that no longer look promising .
3. **Failure to have a clear social-media strategy,** E.g. spending more time on checking facebook.
4. **Letting daily developments drive you,** Dealing with every issue that comes your way
5. **Overloading on administrative work,** Too often, small-business owners waste time on tasks they don't like or aren't even good at.
6. Talking with people about personal matters unconnected with work
7. Having unnecessary long meetings
8. Allowing too many interruptions
9. Being disorganized
- 10.Engaging in little or no delegation
- 11.Being late or absent.

## **CONSEQUENCES OF WASTING TIME**

1. It leads to dissatisfaction of workers.
2. It leads to delay in production and service delivery.
3. It reduces the productivity of the firm.
4. It leads to delay in decision making
5. It discourages team work in business.
6. It leads to late delivery of goods and services.
7. It results into loss of sales hence reduction in profit of the business

- 8. It limits the competitive advantage of the business.
- 9. It limits the entrepreneur from attaining business goals.

**SAMPLE OF A TIME SHEET**

XYZ ENTERPRISES				
P.O.BOX 123 BUYENDE				
TELE:0778855223				
<b>TIME SHEET</b>				
ACTIVITY	EMPLOYEE	START TIME	END TIME	REMARKS

**Question**

**You own a fruit factory in home area with many workers**

- a) Develop a time sheet schedule to be used while paying part time works
- b) Develop policy guidelines to be followed by worker in managing time
- c) Draft a time chart to used by production department

**PACKAGING**

Packaging refers to wrapping, filling or compressing of goods in containers to protect them or make them easy to handle.

**Types of packaging**

- 1. Bottling
- 2. Canning

3. Bagging or putting in bags
4. Packaging in plastic containers
5. Using bales
6. Tinning
7. Boxes or cartons

### **Different types of materials used for packaging**

1. Metals, this include aluminum and steel
2. Plastics, this include polythene papers jerry cans bottles
3. Wood, this include wood boxes,cantons,packing cases
4. Paper, this include papers, boards
5. Glass bottles
6. Laminates aluminum foils, plastic films
7. Polyesters
8. Jute for bags

### **Importance of packaging**

1. Packaging protects good from damage and environmental contamination.
2. It helps to preserve the goods and make it last longer.
3. Packaging helps in product promotion. it makes the product attractive.
4. It helps in product differentiation. It makes a product differ from others.
5. Packaging makes goods easy to handle especially liquids and flour.
6. Packaging makes the goods safe to handle especially blades.
7. Packaging facilitates self service especially in supermarkets.
8. It enables portioning of products. Products can be packed into smaller sizes.
9. It facilitates automatic vending and mail order selling.
- 10.It facilitates branding of the product. Packaging provides space for branding the product.

### **Factors considered when choosing packaging materials**

1. Sources of packaging materials and supplies. Entrepreneurs use packaging materials which are near and from a reliable source.
2. Availability of the packaging materials in the required amounts. Entrepreneurs use packaging materials which are readily available.
3. The cost of the packaging material. Entrepreneurs use packaging materials which are relatively cheap.
4. The type of goods to be packaged. Liquids are packed in bottles while flour is packed in sacks and bags.
5. The purpose of the packaging. Strong materials are used when the main purpose is to protect goods against damage and attractive material is chosen if the purpose is to make the goods attractive.
6. Means of transport to be used. Hard and strong packaging materials are

- used when the goods are to be transported using road and railway.
7. Environmental impact. Entrepreneurs use packaging materials which are friendly to the environment.
  8. The quality of the packaging material. Entrepreneurs select packaging materials which are of good quality which will not contaminate the product.
  - 9.

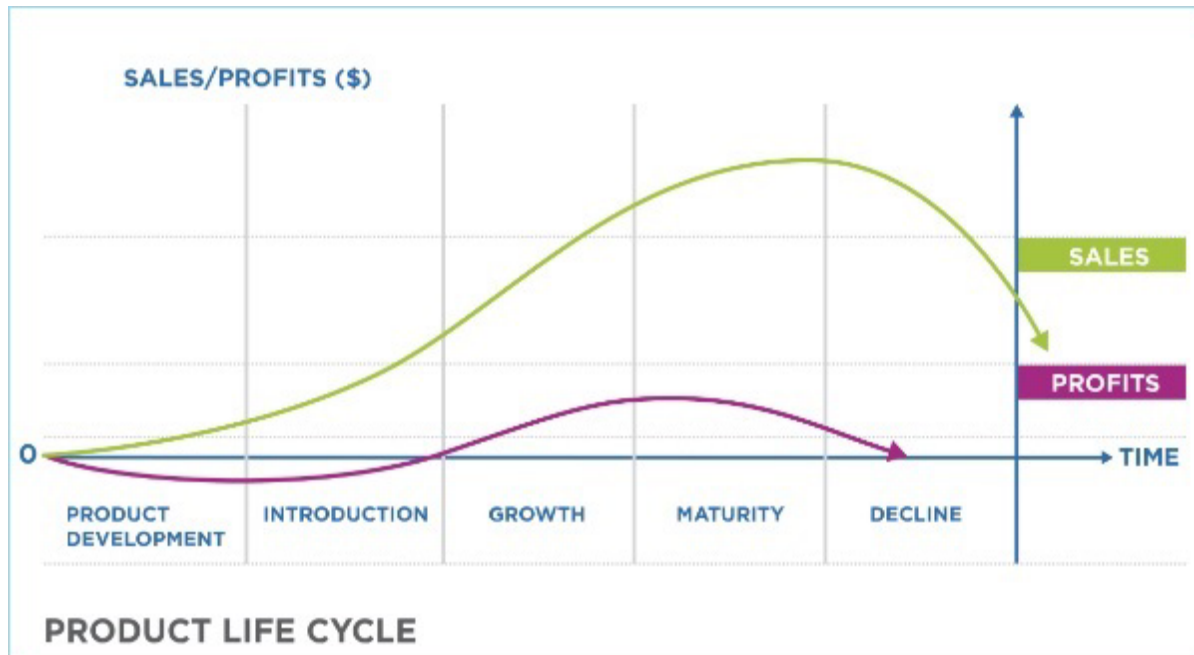
## **PRODUCT LIFE CYCLE**

Product life cycle is the timeline of demand for the product from its initial stage of introduction.

### **Stages of Product Cycle**

Product life cycle can be defined as the life cycle of the product. It means the various stages a product sees in its complete life span. Product life cycle comprises of the following four stages –

- Introduction or innovation
- Growth
- Maturity
- Decline



## 1 Introduction Stage

The product is introduced in the market in this stage; it is the initial stage of the product. Sales of the product are low in this stage because there may not be a need of the product in the market. The product may undergo brand trouble.

1. There is very little or no profit.
2. The demand for the product is created and developed in this stage.
3. Heavy expenses on sales promotion and advertising in order to build product awareness
4. Competitors are very few and its only major players do exist in the market.
5. Production costs tends to be high on per unit cost, because the firm does not enjoy economics of scale

## 2 Growth Stage

In this stage, the demands and market share increases as well as competition emerges in the market.

The marketing strategy is massive advertising and sales promotion activities

Characteristics

1. The price remains constant in this stage.
2. Marketing and promotional expenses increase.

3. There is rapid increase in sales.
4. The manufacturing cost decreases so there is increase in profit margin.
5. It penetrates other market segment.
6. Competition continues to grow throughout this stage
7. The market strategies include product differentiation

In the growth stage, there is a boom in the demand of the product and the profit increases substantially.

### **3 Maturity Stage**

The price of the product is comparatively low, but the advertisement and promotion cost increases in this stage.

#### Characteristics

- This stage, the product remains for comparatively longer duration.
- In this stage, there is high competition.
- Profit is decreased.
- Sales growth can be divided into the following three categories in the maturity stage that is;
  - (a) Growth, here there is an increase in the demand of the product.
  - (b) Stability, in this stage, the demand of the product remains constant.
  - (c) Decay; here, there is a slight decrease in the demand.

### **Decline Stage**

Here there is a decrease in sales in. That is Demand of product also decreases.

#### Characteristics

- There is decrease in the price of the product.
- Margins are lowered.
- There is introduction of new product in market.
- New strategies are implemented.
- Sales continues to deteriorate
- Big number of competing firms do exist

There is a decrease in demand and sales of the product.



## **Importance of Product Life Cycle**

1. Product life cycle is an important tool for market forecasting, planning and control.
2. Product life cycle is analyzed properly and changes can be made in order to increase profit.
3. It is helpful in formulating a proper product policy, production and pricing.
4. It is helpful in modifying the marketing policy.
5. It is helpful to the marketer regarding competition.
6. It is used Cautions the management about the decline stage of the product.