# COST ACCOUNTING (ACT214)

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#### **Definition**

Cost accounting is the process of collecting, summarizing, analyzing and reporting in monetary terms tailor made information to management showing the costs and benefits of pursuing each alternative course of action open to management.

## Essential Elements of Effective Cost Accounting Information

For Cost Accounting Information provided for management to serve its role effectively, it should have some essential elements among which are:

- > The statement containing the information should have appropriate heading so that the management can know at a glance what the statement is all about.
- > The officer receiving the report must be the appropriate person for the decision on hand.
- The information must be prepared timely if it is to be useful.
- > The cost information sent should be sufficiently accurate if wrong decision is not to be taken.

#### **Cost Classification**

Some of the possible classification includes.

- Behavior of the cost in terms of whether it is fixed or variable.
- > The relevant or irrelevance of the cost to the decision on hand.
- Direct or indirect.

### **Costing Method**

method of cost as certainment that centres on the business. For a business that deals with a standardized product made under production methods through a series of production steps called processes the appropriate costing method to use in process costing. On the other hand, where the product made or service rendered is non-standardized costina method to use in job costing or contract costing.

## **Cost Technique**

- Costing technique refers to the method used to determine the value of finished goods.
  - Among these techniques that give different valuation are:
- Standard costing
- Marginal costing
- 3. Absorption costing.

#### Fixed and Variable Costs

A fixed cost is a cost that remains the same regardless of changes in level of activity while a variable cost is a cost that increases in direct proportion to the increase in level of activity.

#### **Element of Cost**

## The analysis and classification of expenditure.

- > The main classifications of business expenditure are:
- > (a) Materials (b) Wages (c) Expenses

However there are, two broad divisions to be noted, namely:

Direct Expenditure and Indirect Expenditure

#### **Direct & Indirect Cost**

- Direct materials means the cost of materials which enter into and become part of the product, e.g. the flour in bread, the clay in bricks, the leather in shoes and the wood in furniture.
- Direct wages means the cost of wages paid to operatives who are immediately concerned with the manufacture of a product.
- Direct expenses means those expenses incurred which without doubt are as much a cost of the product as are direct materials. Such might be the provision of s

#### **Direct & Indirect Cost**

Indirect materials, wages, and expenses may be simply be defined as all expenditure other than that regarded as direct. Cost accountants have sought for a term which would definitely be understood to be embracive of indirect materials, wages and expenses. This they have found in the word "overhead"

# Classifications of Overheads Production Overhead

> This refers to the indirect works expenditure incurred, and it consists of the three elements i.e indirect materials, indirect labour and indirect expenses.

#### **Administrative Overhead**

This refers to the expense incurred in the direction, control, and administration of an undertaking. The same elements of material, labour, and expenses permeate the headings under this and the remaining two classifications, but it is not usually necessary to consider them in those separate categories.

## Classifications of Overheads Selling Overhead

This classification comprises the costs incurred in securing orders from customers for the products dealt in by the concern. Examples are: Staff, Advertising and Sales department expenses.

#### Distribution Overhead

This consists of all expenditure incurred in handling the product from the time it is completed in the works until it reaches its destination. Examples of such expenditure are: Warehouse wage and salaries Packing cases

Materials are inputs in the production process. The categories of materials/inventories or stock are:

#### Raw Material

Primary materials purchased or produced either in a natural or manufactured condition. Manufactured materials of one industry are often the raw materials of another, e.g. the finished product of a steel mill may be the raw materials of an engineering factory.

### Work in Progress

This is production that has not yet reached the stage of completion.

## Finished parts

These are items or sub-assemblies put into store awaiting final assembly or sale as spares.

## Receipt and Issue of Material

Purchased materials are passed into the custody of the storekeeper when they have examined and approved. Some articles or parts are not purchased from outside suppliers, but are made in the works. These will be inspected in the usual course and then passed into stores.

#### **Issue of Materials**

The cost of materials is frequently the largest element of cost in production, so it is imperative that all stores shall be recorded as promptly and as accurately as possible. In most companies, the storekeeper is allowed to issue materials only on presentation of an authorized materials requisition.

## **Documentations Involved in Materials Keeping**

### Materials requisition

This document, sometimes termed stores requisition, is an authorization to the storekeeper to issue raw material, finished parts, or other types of stock. It is usually signed by the foreman of the department requiring the materials.

#### Record

Two records are usually kept of materials received, issued, or transferred-namely on the bin cards and in the stores ledger. The bin cards are written up in the stores, but the stores ledger is usually kept in the cost department or in the stores office.

MATERIALS REQUISITION Department: Assembly shop No. 2 No: 1234 Charge to: Job No. P23 Date: 1st March, 20						
Quantity	Details	Stock Code No.	Weight	Rate N	Amount N	Notes
600	50mm x 10mm steel carriage bolts	S.B. 23	-	0.10	6.00	-
Signed by: J. Paul		Bin No: 241 Storeman: J. Lewis		Cost Department Checked By:	nt Priced by: O. T. Ball	
Approved by: G. David		Stores Ledger: 346		I. A. Smart		

**Documentations Involved in Materials Keeping** 

#### **Transfer of Materials**

Transfer of materials from one sub-store to another should be recorded by means of a materials transfer note or a materials requisition note marked "transfer".

#### **Materials Return Note**

> This document, sometimes termed a stores debit note, is an authorization to return to the storekeeper raw material, finished parts or other stock no longer required by the factory. These notes may be produced in the same design as a materials requisition, but may be printed in red to distinguish them.

**Documentations Involved in Materials Keeping** 

#### **Bin Cards**

Materials are stored in appropriate bins, drawers, shelves, or other receptacles; some are stacked, others racked. For each kind of material a separate record is kept on a bin card, showing in detail all receipts and issues. The bin cards thus assist the storekeeper in controlling the stock position.

**Documentations Involved in Materials Keeping** 

## **Stores Ledger**

> The stores ledger is kept in the cost accounting department. In it is recorded the same information as the storekeeper records on the bin cards, but also the money values are shown.

## **Store Routine**

## Importance and Location of the Stores

The stores in many small firms is often neglected, and it is not realized that materials represent an equivalent amount of cash. Material pilferage, deterioration of materials, and careless handling of stores lead to reduced profits, or even losses, so it is essential that to obtain the maximum advantage of a cost accounting system, an efficient, well-equipped stores, be maintained.

### **Location of Store**

> The organization of the stores will depend on the type of industry, size of the firm, and policy of the management. However, in general, we can define two types of stores organization central stores and sub-stores.

## **Store Routine**

## Centralized storage(Advantages)

The advantages of operating central stores as compared with substores are as follows:

- Economy in staff and concentration of experts in one department
- Reduced clerical costs and economy in records and stationery;
- Better supervision is possible;
- Staff become acquainted with different types of stores, which is very useful if anyone is absent from work
- Better layout to stores

## **Store Routine**

## Centralized storage(Advantages)

- Inventory checks facilitated;
- Stocks are kept to a minimum, thus reducing storage space; (h) fewer obsolete articles;
- The amount of capital invested in stock is minimized.

## **Centralized storage(Disadvantages)**

- Increased transportation costs;
- The stores may be situated at some distance fro may departments, thus causing inconvenience and delay;
- Breakdowns in transport or hold-ups in central stores may cause production stoppages in departments.

# Store Keepers and Their functions

### The Storekeeper

The stores should be under the control of one person, who may be known as the storekeeper, chief storekeeper, or stores superintendent.

## Duties and responsibilities of the storekeeper

- Maintaining the stores in a tidy manner;
- Accepting materials into the stores, after having ascertained that the delivery complies with specifications detailed on the purchase order, goods received note, or stores debit note;

# Store Keepers and Their functions

## Duties and responsibilities of the storekeeper

- Correct positioning of all materials in store;
- Checking the bin card balance with the physical quantities in the bins;
- Requisitioning further supplies from the purchasing department when the recorder level is reached on any materials;
- Preventing unauthorized persons entering the stores;
- Issuing materials against authorized stores requisition notes;
- > Advising management of obsolete or slow moving stocks.

> The storekeeper is guided when requisitioning for stores, by the maximum and minimum quantity which he is authorized to store in respect of each kind of material, and the reorder level.

#### Minimum stock level

> This level considers the average or normal consumption expected. Stocks should not normally fall below this level, but the buffer stock is maintained in case of emergencies.

#### Maximum stock level

> This level considers the lowest rate of consumption which could be expected if delivery was received in the shortest possible time. Stocks should never be allowed to rise above this point without special authority.

## **Average Stock Level**

This measure the average level of stock held during an accounting period. The average stock level is a useful measurement when considering stores turnover.

#### Reorder level

This level is calculated first, because the maximum and minimum stock levels both include

## **Example of the Calculation of Stock Levels**

- The materials analyst has forecast the following data in respect of material MS6:
  - Maximum consumption of material per week:400units, Normal consumption of material per week:300units,

Minimum consumption of material per week: 200units, Reorder quantity:2000units, Reorder period:4-6weeks.

#### Material Issue and Valuation Methods

- First-In-First-Out (FIFO): This is a method whereby issues are made in order in which they are received into the stock. The advantages are:
- It is simple to understand
- □ It is recommended by the Statement of Accounting Standard 4 (SAS4).
- Items in store longest are issued first

The disadvantages are:

- It is costly because of too much information required
- Similar job done for the same person can be charged at different price

#### Material Issue and Valuation Methods

2. Last-In-First-Out (LIFO): This is a method that uses the price of the last batch received for all issues until all units from this batch have been issued.

#### Illustration1

KOSEGBE NIGERIA LTD purchased the following articles:

JAN2, 2000 UNITS @ N1 each

FEB8, 1500 UNITS @ N1.25 each

APR20, 3000 UNITS @ N1.50 each

Issues were made as follows:

# Material Issue and Valuation Methods Illustration1

Issues were made as follows:

JAN15, 800 UNITS

FEB24, 1000 UNITS

MAR5, 600 UNITS

APR30 2000 UNITS

You are required to prepare the store ledger account using FIFO method.

## **Inventory Control Methods**

Basically, there are two methods used in monitoring the level and accuracy of inventories. These are:

- Perpetual inventory method
- 2. Periodic stock taking

## **Perpetual Inventory Method**

Here, a number of items are counted and checked daily or at frequent intervals and compared with the bin cards records. It is sometimes referred to as continuous stock-taking/inventory methods.

## **Periodic Stock Taking**

This is a periodic check (usually annual) on stocks, to ensure physical stocks agree with the amount shown in stock records.

#### **Definition of Labour Cost**

□ It is the cost of human efforts used in conversion of inputs of production to get the finished products.

#### Classification of Labour

- Direct labour
- Indirect labour

### **Direct Labour**

This is the type that can easily be traced to a part, cost unit or cost centre.

#### **Indirect Labour**

This is the type that cannot be traced to a particular product, process, job, batch or department.

## **Methods of Remunerating Labour**

- (a ) Time-or day-rate wages based on the time employed, including extra payment for overtime.
- (b) Payment by results:
- (i)Piece-work
- (ii) Bonus schemes
- (iii)Profit-sharing schemes

## Time-or day-rate wages Method

Wages are paid at an agreed rate per hour, day, or week, without reference to the quantity of work done. Overtime is usually paid at higher rates, e.g. time and a quarter, time and a half, or double time.

## **Methods of Remunerating Labour**

#### Piece-work Method

Individual piece-work. An incentive wage based on a fixed price per unit of work, regardless of time taken. The unit may be an article, a batch of a stated quantity, or an operation.

### **Advantages of Piece-work Method**

The advantages are:

- A high speed is usually developed
- A larger output generally results
- Constant repetition tends to uniformity of the product;

## Methods of Remunerating Labour Premium Bonus Scheme of Payment

- Under piece-work system, the wages charge per unit in the costs remains constant, but labour's reward depends on the number of units produced, and output has a definite tendency to increase. The premium bonus schemes introduce a different principle; in that a bonus is given having regard to time saved over a pre-arranged time allowed per job.
- □ The various systems of premium bonus schemes differ chiefly in the method of computing the proportion of saving which is to be paid as bonus to the employees.

## **Premium Bonus Scheme of Payment**

- The Halsey and the Halsey-Weir premium bonus schemes. These are similar, except that in the first the bonus paid 50% of the time saved (valued at the employee's hourly rate of pay) over the time allowed for the job, and in the second the premium bonus is 30%.
- □ The Rowan premium bonus scheme. Under this scheme the premium to be added to the pay-rate is the percentage that the time saved is of the time allowed.

#### **Other Bonus Schemes**

## The fixed bonus system

A separate fixed bonus per hour or per unit is given in each department if output reaches or exceeds a stated quantity. This is, in effect, a bonus for collective time saved.

## Cost premium method

A standard cost is set up, and if the actual cost proves to be less, a proportion of the saving is distributed to the employees on some agreed basis. This is a collective bonus scheme.

## **Methods of Remunerating Labour**

## **Profit Sharing Schemes Method**

These schemes usually provide for a certain percentage to be paid to all employees, in agreed proportions, out of taxed profits remaining after the fixed dividends have been paid on preference shares, and an agreed percentage on the ordinary shares. In short, certain percentage of the profit after tax and preference and ordinary dividend is stated as profits to be shared or apportioned by employee.

# Profit Sharing Schemes Method Example

Company A has an issued share capital, fully paid up, considering of: 10,000 9% preference shares of 10,000 ordinary shares

It is agreed that 25% of the remaining taxed profits be paid to the employees after the payment of:

(a)The dividend due on the preference shares; (b) A dividend of 15% on the ordinary shares. The after tax profits for the year are N-20,0000. How much would be available for the profit sharing scheme? How much would be shared as profit? Hint:14,600 and 3650 respectively

# Labour Gross Wage Computation Example

An operator has a basic hourly rate of N3 and every hour saved he is paid a bonus of 50% of the basic rate:

Calculate

The gross wage payable (ii) The bonus earned

If time allowed for job is 50 hours and the time taken is 40 hours.

Use the same information to calculate

- Halsey bonus
- Halsey weir bonus
- Rowan bonus

# **Overhead Accounting**

TO BE CONTINUED.....