III B.Com., - COST ACCOUNTING

UNIT-1

Nature and scope –objectives, advantages and limitations-financial vs cost accounting-costing system-types of costing-cost classification-cost sheet and tenders-cost unit-cost centre and profit centre.

Meaning of Cost Accounting:

An accounting system is to make available necessary and accurate information for all those who are interested in the welfare of the organization. The requirements of the majority of them are satisfied using financial accounting.

Cost Accounting is a business practice in which we record, examine, summarize, and study the company's cost spent on any process, service, product or anything else in the organization. This helps the organization in cost controlling and making strategic planning and decision on improving cost efficiency. Such financial statements and ledgers give the management visibility on their cost information.

It is a process via which we determine the costs of goods and services. It involves the recording, classification, allocation of various expenditures, and creating financial statements. This data is generally used in financial accounting.

This helps us calculate the costs of the various goods. It also involves a suitable presentation of this data for the purposes of cost control and guidance to the management.

Definition of cost accounting

"The process of accounting for cost from the point at which expenditure incur or commit to the establishment of its ultimate relationship with cost centers and cost units. In its wider usage, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carry out or plan."

Objectives of Cost Accounting:

It was born to fulfill the needs of manufacturing companies. Its a mechanism of accounting through which costs of goods or services are ascertaining and control for different purposes. It helps to ascertain the true cost of every operation, through a close watch, say, cost analysis and allocation.

The main objectives of cost accounting are as follows:-

1] Cost Ascertainment:

The main objective of cost accounts to find out the cost of product, process, job, contract, service or any unit of production. It is done through various methods and techniques.

2] **Cost Control:**

The very basic function of cost accounts to control costs. A comparison of actual costs with standards reveals the discrepancies (Variances). The variances reveal whether the cost is within the control or not. Remedial actions are suggesting to control the costs which are not within control.

3] Cost Reduction:

Cost reduction refers to the real and permanent reduction in the unit cost of goods manufactured or services rendered without affecting the use intended. It can be done with the help of techniques called budgetary control, standard costing, material control, labor control, and overheads control.

4] Fixation of Selling Price:

The price of any product consists of total cost and the margin required. Cost data are useful in the determination of selling price or quotations. It provides detailed information regarding various components of cost. It also provides information in terms of fixed cost and variable costs, so that the extent of price reduction can be decided.

5] Framing business policy:

It helps management in formulating business policy and decision making. Break-even analysis, cost volume profit relationships, differential costing, etc help make decisions regarding key areas of the business.

Nature and Scope of Cost Accounting:

Cost accounts concerned with ascertainment and control of costs. The information provided by cost-accounting to the management is helpful for cost control and cost reduction through functions of planning, decision making, and control. Initially, they confined itself to cost ascertainment and presentation of the same mainly to find out product cost.With the introduction of large-scale production, the scope was widened and providing information for cost control and cost reduction has assuming equal significance along with finding out the cost of production. To start with cost-accounting was apply in manufacturing activities but now it applies in service organizations, government organizations, local authorities, agricultural farms, Extractive industries and so on.

Advantages of Cost Accounting – To the Management, Workers, Creditors, Investors, Customers, Society and Government

A) Advantages to the Management:

- i) Helps in Decision-Making – Decision-making is concerned with choosing between alternative courses of action. An important factor involved in the choice is the financial implication of the available alternatives. Cost Accounting is a decision-making tool. It provides suitable cost data and other related information to enable management to evaluate alternative courses of action.

- ii) Supplies detailed Cost Information – Cost Accounting classifies cost and revenue by every possible division of the business and supplies management with detailed and regular cost information. Such information is useful for ascertaining the cost of product, process, department, division or unit of service.

- iii) Guides in Price Fixation – Cost is one of the most important factor to be considered while fixing prices. It assists the management in fixation of selling price both in normal conditions and during the period of depression. With the help of costing, it is possible to prepare estimates, tenders and quotations.

- iv) It reveals Operating Efficiency – Cost information reveals, profitable and unprofitable activities, so that steps may be taken to reduce or eliminate wastages and inefficiencies occurring in any form such as – idle time, under-utilisation of plant capacity, spoilage of materials etc.

- v) It Facilitates Planning – It enables the management to know the future costs, so that appropriate plans and decisions can be made.

- vi) It reveals Idle Capacity – A concern may not be working to full capacity due to reasons such as – shortage of demand, machine breakdown or other bottlenecks in production. A Cost Accounting system can easily find out the cost of idle capacity so that the management may take immediate steps to improve the position.

- vii) Helps in Inventory Control – Perpetual inventory system which is an integral part of cost accounting, helps in the preparation or interim profit and loss account. Other inventory control techniques like ABC Analysis, Level setting etc., are also used in Cost Accounting.

- viii) Helps in Cost Control – Cost Accounting helps in controlling costs with special techniques like standard costing and budgetary control.

- ix) Helps in Cost Reduction – It helps in the introduction of cost reduction programme and finding out new and improved ways to reduce costs.

- x) Checks the Accuracy of Financial Accounts – Cost Accounting provide a reliable check on the accuracy of financial accounts with the help of reconciliation between the two at the end of the accounting period.

- xi) It Facilitates Cost Comparison – Cost Accounting enables management to make cost comparison of jobs, products, departments, sales territories etc., within the same concern. It provides inter-firm cost comparison also.

- xii) It Prevents Frauds and Manipulation – It helps in preventing manipulation and frauds through cost audit system. Thus, reliable cost data can be furnished to management and others.

B) Advantages to the Workers:

- From the cost records, we can find out the efficiency of the workers. Thus, the efficient workers are rewarded and the slow workers are given more incentives to come up to a certain level of efficiency. A sound costing system, therefore, increases the profitability and the workers get more wages. Workers are benefited by the introduction of incentive plans which is an integral part of a cost system.

C) Advantages to the Creditors:

- The creditors feel secured, where there is a good system of costing in a concern because they can verify the creditworthiness of the concern. Thus, the creditors extent credit facilities on a longer term which is beneficial to the business.

D) Advantages to the Investors:

- The investors also feel secured if there is prosperity in a business as they feel that their money remains secured. Hence, more and more people are attracted to invest in the concern which further increases the prosperity of the business.

E) Advantages to the Customers:

- The customers always feel that the products which they are buying are the cheapest in the market but at the same time best in quality. Hence, when the prices are quoted in the products to the nearest paisa the customer feel that there is much accuracy in fixing the selling price.

F) Advantages to the Society:

- As costing removes all the types of wastages, scraps the general public, gets the products at lower prices. Again when a unit grows in size its requirements also grow. For example, more man-power is needed, more raw material requirements arise, more sales are made etc. Hence, it leads to more employment of the local people; more suppliers of raw materials enter the markets etc.

- When the sales are more, there can be large scale production and hence the advantages of economies of scale can be achieved, which in turn reduces the prices. Due to reduction in costs, inflation in the economy can be controlled. This is because people will have to pay less price for the products and hence, can save their income.

G) Advantages to the Government:

- A cost system provides ready figures to use for Government, wage tribunals, trade unions etc., for use in problems relating to price fixing, wage level fixation, settlement of industrial unions disputes etc. The Government can plan its policies based on the techniques and procedures of cost accounting.

- Cost accounting, therefore, promotes economic development. To reduce cost of production and sales price, the Government has introduced cost audit in most of the industries for e.g., the industries which are engaged in production, processing, manufacturing and mining activities. Such companies are now required to keep certain costing records and have to submit certain statutory returns to the Government periodically. By doing all these, the advantage to the Government is that there can be price stability in the economy.

Limitations of Cost Accounting:

The following limitations below are;

- It is based on estimation: as cost accounting relies heavily on predetermined data, it is not reliable.

- No uniform procedure in cost accounting: as there is no uniform procedure, with the same information different results may be arrived by different cost accounts.

- A large number of conventions and estimate: There are several conventions and estimates in preparing cost records such as materials are issuing on an average (or) standard price, overheads are charging on the percentage basis, Therefore, the profits arrive from the cost records are not true.

DIFFERENCE BETWEEN COST AND FINANCIAL ACCOUNTING

BASIS FOR COMPARISON	COST ACCOUNTING	FINANCIAL ACCOUNTING
Meaning	Cost Accounting is an accounting system, through which an organization keeps the track of various costs incurred in the business in production activities.	Financial Accounting is an accounting system that captures the records of financial information about the business to show the correct financial position of the company at a particular date.
Information type	Records the information related to material, labor and overhead, which are used in the production process.	Records the information which are in monetary terms.
Which type of cost is used for recording?	Both historical and pre-determined cost	Only historical cost.
Users	Information provided by the cost accounting is used only by the internal management of the organization like employees, directors, managers, supervisors	Users of information provided by the financial accounting are internal and external parties like creditors, shareholders, customers etc.

	etc.	
Valuation of Stock	At cost	Cost or Net Realizable Value, whichever is less.
Mandatory	No, except for manufacturing firms it is mandatory.	Yes for all firms.
Time of Reporting	Details provided by cost accounting are frequently prepared and reported to the management.	Financial statements are reported at the end of the accounting period, which is normally 1 year.
Profit Analysis	Generally, the profit is analyzed for a particular product, job, batch or process.	Income, expenditure and profit are analyzed together for a particular period of the whole entity.
Purpose	Reducing and controlling costs.	Keeping complete record of the financial transactions.
Forecasting	Forecasting is possible through budgeting techniques.	Forecasting is not at all possible.

The following points highlight the top six types of costing systems. The types are: 1. Historical Costing 2. Absorption Costing 3. Direct Costing 4. Marginal Costing 5. Standard Costing 6. Uniform Costing.

Type # 1. Historical Costing:
In this type of costing system, the costs are ascertained only after they have been incurred. The main objective of it is to ascertain costs that have been incurred in past. It is the process of accumulation of costs after they are incurred in a systematic manner. The historical costs are used only for postmortem examination of actual costs incurred and it would be too late to control. The actual figures can be compared only when the standards of performance exists.

Type # 2. Absorption Costing:
Under the ‘absorption costing system’ all fixed and variable costs are allotted to cost units and total overheads are absorbed according to activity level. In absorption costing system, fixed manufacturing overheads are allocated to products, and these are included in stock valuation.

Therefore, valuation of inventories of finished goods and WIP includes manufacturing fixed cost and transferred to next period. Unlike manufacturing fixed overhead, the administrative overhead, selling and distribution overheads are treated as fixed cost and recorded only when they incurs. It is a traditional form of cost ascertainment. It is based on the principle that costs should be charged or absorbed to whatever is being costed – be it cost unit, cost centre – on the basis of the benefit received from these costs.

Type # 3. Direct Costing:

It is a method of costing in which the product is charged with only those costs which vary with volume. Variable or direct costs such as direct material, direct labour and variable manufacturing expenses are examples of costs charged to the product. All indirect costs are charged to profit and loss account of the period in which they arise. Indirect costs are disregarded in inventory valuation.

Type # 4. Marginal Costing:

Under marginal costing, costs are classified into fixed and variable costs. Variable costs are charged to unit cost and the fixed costs attributable to the relevant period are written-off in full against the contribution for that period.

Contribution margin indicates the recovery of fixed cost before contributing towards the operational profit. This technique is widely used for internal management purpose for decision making rather than for external reporting.

Type # 5. Standard Costing:

Under standard costing system, the ascertainment and use of standard costs and the measurement and analysis of variances is done for control purpose. Standard cost is a predetermined cost which is computed in advance of production on the basis of a specification of all the factors affecting costs and used in Standard Costing. Its main purpose is to provide a base for control through Variance Accounting, for valuation of stock and work-in-progress and, in some cases, for fixing selling prices.

Type # 6. Uniform Costing:

It is not a distinct method of costing. It is the adoption of identical costing principles and procedures by several units of the same industry or several undertakings by mutual agreement. It facilitate valid comparisons between organizations and helps in elimination of inefficiencies.

Which are the different types of costs?

For analyzing the various costs it is imperative to first understand the types of costs.

Fixed Costs - The costs that remain constant despite changes in production, process or projects are referred to as fixed costs. For example, in a manufacturing unit the salaries of the office staff will remain fixed irrespective of the production.

Variable costs

These costs vary with the production, process or project changes. For example, in an organization manufacturing toy the material and labour cost will be dependent on the production.

Opportunity cost

The cost incurred in selecting one option over another is called opportunity cost. For example in a toy manufacturing unit with limited labour hours and material, the decision to produce one particular toy say 'Dancing Monkey' will result in non-production of an other toy say 'Spinning top'. So while considering the profitability of toy 'Dancing Monkey' the organization has to consider the profit of 'Spinning top' that it forgoes.

Sunk cost

Certain costs are incurred and cannot be recovered these are sunk costs. Continuing with our example of toy manufacturing unit, sunk costs would refer to machinery cost that has been incurred.

Which are the techniques in Cost Accounting?

The techniques of costing facilitate managerial decision making. The different types are

Marginal Costing

As per this technique, the management may decide the number of units to be produced. Suppose a toy unit is already producing 100 units of 'Dancing Monkey' toy, this technique will help the management understand that if the production is increased to 150, will it be profitable. In this technique, only the variable costs for additional units produced will be considered. Fixed costs are not taken into consideration as they do not vary with changes in production.

Standard Costing

In this technique of costing the costs incurred are compared to the predetermined cost of the product, process or project. The variances are analyzed to bring about cost-effectiveness.

Direct Costing

In this technique all the direct costs incurred for a particular product, process or project are charged to it and the indirect costs are written off to profit and loss.

Historical Costing

It is comparison of all costs incurred after the process is performed.

Uniform Costing

In this technique same costing practices are followed across certain units to facilitate comparison.

Absorption costing

This is a method of full costing. In this all costs are charged to the product, process or project.

Which are the various methods of Costing?

Since each business is so varied from the other, the method of costing cannot be uniform. The different methods of costing used by different businesses are summarized here under :

Method	**Type of Business**
Job Costing – The costs incurred for a particular job can be easily identified	Advertising
Contract costing – Similar to job costing but the duration of assignment is longer.	Construction
Unit costing – The costs are incurred for a fixed quatiny.	Mining
Batch costing – The costs incurred for a fixed number of units forming a batch	Manufacturing of spare parts
Process costing – The processes involved are easily distinguished.	Textile units
Operating costing – The costs are incurred for services rendered.	Hospitals

The following points highlight the five main types of classification of costs. The types are: 1. Cost Classification by Nature 2. Cost Classification in Relation to Cost Centre 3. Cost Classification by Time 4. Cost Classification for Decision Making 5. Cost Classification by Nature of Production Process.

Type # 1. Cost Classification by Nature:
The total cost of a product or service is basically classified into material cost, labour cost and expenses as follows:

i. Material Cost:
It is the cost of material of any nature used for the purpose of production of a product or a service. Material cost includes cost of procurement, freight inwards, taxes and duties, insurance etc. directly attributable to the acquisition. Trade discounts, rebates, duty drawbacks, refunds on

account of modvat, cenvat, sales tax and other similar items are deducted in determining the costs of material.

ii. Labour Cost:

Labour cost includes salaries and wages paid to permanent employees, temporary employees and also to employees of the contractor.

The labour cost can be analyzed into the following:

a. Monetary benefits payable immediately:

Salaries and wages, dearness and other allowances, production incentive or bonus.

b. Monetary benefits after sometime in future:

Employer's contribution to P.F., E.S.I., Pension etc. Gratuity, Profit linked bonus.

c. Non-monetary benefits (fringe benefits):

Free or subsidized food, free medical or hospital facilities, free or subsidized education to the employees children, free or subsidized housing etc.

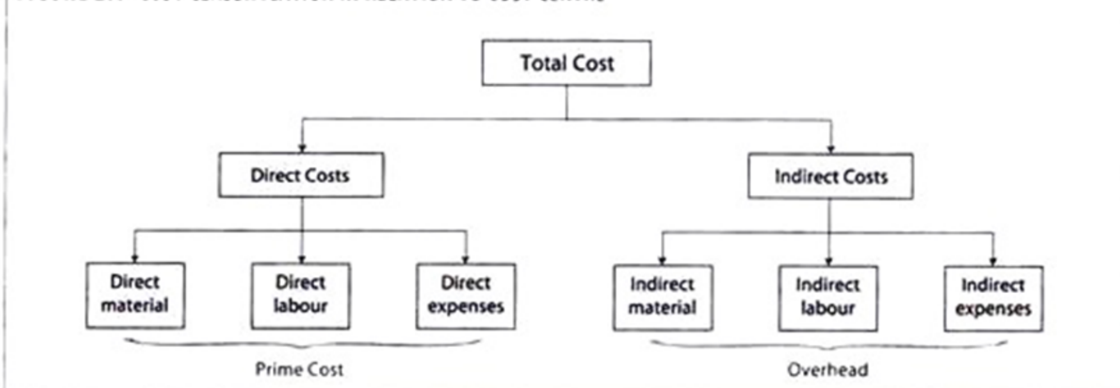
iii. Expenses:

These are the costs other than material cost or labour cost which are involved in an activity. Expenditure on account of utilities, payment for bought-out services, job processing charges etc. can be termed as expenses.

Type # 2. Cost Classification in Relation to Cost Centre:

The elements of cost can be studied under the classification direct and indirect costs. If the object of interest for identifying and measuring cost is to determine how much sacrifice is involved in manufacturing a particular product, then initially one can define the three elements of total cost i.e., materials, labour, and expenses.

FIGURE 2.1 COST CLASSIFICATION IN RELATION TO COST CENTRE



i. Direct Costs:

The direct costs are those which can be identified easily and indisputably with a unit of operation or costing unit or cost centre. Costs of direct material, direct labour and direct expenses can be directly allocated or identified with a particular cost centres or a cost unit and can be directly charged to such cost centre or cost unit. These costs are also called ‘traceable costs’.

ii. Direct Material:

The direct material costs are those which can be identified easily and indisputably with a unit of operation or costing unit or cost centre. The direct material cost can be directly allocated or identified with particular cost centres or cost units and can be directly charged to such cost centres or cost units.

Raw materials are directly identifiable as part of the final product and are classified as direct materials. For example, wood used in production of tables and chairs, steel bars used in steel factory etc. are the direct materials that becomes part of the finished product.

iii. Direct Labour:

The labour cost incurred on the employees who are engaged directly in making the product, their work can be identified clearly in the process of converting the raw materials into finished product is called ‘direct labour cost’.

For example, wages paid to the workers engaged in machining department, fabrication department, assembling department etc.

iv. Direct Expenses:

The direct expenses refers to expenses that are specifically incurred and charged for specific or particular job, process, service, cost unit or cost centre. These expenses are also called ‘chargeable expenses’.
Some of the examples of direct expenses include the following:
(1) Cost of drawings, designs and layout.
(2) Royalties payable on use of patents copyrights etc.
(3) Hire charges of special tools and equipment for a particular job or work.
(4) Architects, surveyors and other consultation fees of particular job or work.
Sometimes, if the direct expenses are negligible or small amount, it will be treated as overhead.

v. Indirect Costs:

Indirect costs cannot be allocated but which can be apportioned to cost centres or cost units. These costs are also called as ‘common costs’. The indirect costs are not traceable to any plant, department, operation or to any individual final product. All overhead costs are indirect costs.

Costs of indirect material, indirect labour and indirect expenses in aggregate constitute the overhead costs and are the indirect component of the total cost. Indirect costs cannot be directly allocated to cost units or cost centres and have to be absorbed or recovered into cost units.

vi. Indirect Material:

The costs incurred on materials used to further the manufacturing process, which cannot be traced into the end product and the material required in the production process but not necessarily built into the product are called ‘indirect material’.

For example cutting oil used in cutting surface, threads and buttons used in stitching clothes, lubricants used in maintenance of plant and machinery, cotton waste used in cleaning the machinery etc. are considered as indirect materials.

Sometimes indirect materials like coal, fuel used in kilns etc. are considered as part of the prime cost and some materials which are contained in small quantities in the end product like gums and threads used in binding the books even though forming part of direct material cost, but is considered not worth analyzing to cost units and may be categorized as indirect material cost.

vii. Indirect Labour:

The cost of indirect labour consist of all salaries and wages paid to the staff for the purpose of carrying and tasks incidental to goods or services provided which will not form part of salaries and wages paid in working directly upon the product.

For example, salaries and wages paid to store keepers, watch and ward, supervisors, timekeepers, quality control, managers, clerical staff, salesmen etc. These indirect labour costs cannot be identified with any particular job, process, cost unit or cost centre.

viii. Indirect Expenses:

Indirect expenses are those which are incurred by the organization in carrying out their total business activities and cannot be conveniently allocated to job, process, cost unit or cost centre. Rent, rates, taxes, insurance, lighting, telephone, postage and telegrams, depreciation etc. are the examples of indirect expenses.

The concepts of direct and indirect costs are meaningless without identification of the relevant cost unit or cost centre. Segregation of costs into direct and indirect costs is essential for proper accounting and control of costs and also for managerial decision making purpose.

Advanced manufacturing technologies such as Robotics, Computer Aided Design and Manufacture, Flexible Manufacturing Systems, Optimized Production Technology, Just-in-Time etc., are revolutionizing the manufacturing process at shop-floor, quality and creating areas for improved opportunities. They have dramatically changed the manufacturing cost behaviour patterns.

The direct cost component of product cost is decreasing while depreciation, engineering and information processing costs are increasing. These changes have resulted in higher overhead rates and a shrinking base of direct costs over which to allocate those costs.

Type # 3. Cost Classification by Time:

i. Historical Cost:

The historical cost is the actual cost, determined after the event. Historical cost valuation states costs of plant and materials, for example, at the price originally paid for them.Costs reported by conventional financial accounts are based on historical valuations. But during periods of changing price levels, historical costs may not be correct basis for projecting future costs. Naturally historical costs must be adjusted to reflect current or future price levels.

ii. Predetermined Cost:

These costs relating to the product are computed in advance of production, on the basis of a specification of all the factors affecting cost and cost data. Predetermined costs may be either standard or estimated.

iii. Standard Cost:

It is a predetermined calculation of how much costs should be under specified working conditions. It is built up from an assessment of the value of cost elements and correlates technical specifications and the quantification of materials, labour and other costs to the prices and/or usage rates expected to apply during the period in which the standard cost is intended to be used.Its main purpose is to provide basis for control through variance accounting for the valuation of stock and work-in-progress and in some cases, for fixing selling prices. A standard cost is a planned cost for a unit of product or service rendered.

iv. Estimated Cost:

It is a predetermined cost based on past performance adjusted to the anticipated changes. No minute appraisal of each individual component cost. It can be used in any business situation or decision making which does not require accurate cost.

It is used in budgetary control system and historical costing system. Its emphasis is on the level of costs not to be exceeded. It is used in decision making and selection of alternative with maximum profitability. It is also used in price fixation and tendering. It is determined generally for the period.

Type # 4. Cost Classification for Decision Making:

For the managerial decision making the cost data can be analyzed keeping in view the following cost concepts:

i. Marginal Cost:

The term ‘marginal cost’ is defined as the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit. It is a variable cost of one unit of a product or a service i.e., a cost which would be avoided if that unit was not produced or provided.

ii. Differential Cost:

It is also known as ‘incremental cost’. It is the difference in total cost that will arise from the selection of one alternative to the other. It is an added cost of a change in the level of activity.

This concept is similar to the economists’ concept of marginal cost which is defined as the additional cost incurred by producing one more unit of product. It refers to any kind of change like add or drop a new product/existing product, changing distribution channels, add or drop business segments, adding new machinery, sell or process further, accept or reject special orders etc.

iii. Opportunity Cost:

It is the value of a benefit sacrificed in favour of an alternative course of action. It is the maximum amount that could be obtained at any given point of time if a resource was sold or put to the most valuable alternative use that would be practicable. Opportunity cost of good or service is measured in terms of revenue which could have been earned by employing that good or service in some other alternative uses.

Opportunity cost can be defined as the revenue forgone by not making the best alternative use. Opportunity costs represent income foregone by rejecting alternatives. They are, therefore not incorporated into formal accounting systems because they do not incorporate cash receipts or outflows.

iv. Relevant Cost:

The relevant cost is a cost appropriate in aiding to make specific management decisions. Business decisions involve planning for future and consideration of several alternative courses of action. In this process the costs which are affected by the decisions are future costs. Such costs are called relevant costs because they are pertinent to the decisions in hand.

The cost is said to be relevant if it helps the manager in taking a right decision in furtherance of the company’s objectives. A relevant cost is a future cost which differs between alternatives. It can also be defined as any cost which is affected by the decision at hand. The relevant cost must be a future cost, i.e., one which is expected to be incurred and not a historic or sunk cost which has already been incurred.

v. Sunk Cost:

The sunk cost is one for which the expenditure has taken place in the past. This cost is not affected by a particular decision under consideration. Sunk costs are always results of decisions taken in the past. This cannot be changed by any decision in future. The sunk costs are those costs that have been invested in a project and which will not be recovered if the project is terminated.

The sunk cost is one for which the expenditure has taken place in the past. This cost is not affected by a particular decision under consideration. Sunk-costs are always results of decisions taken in the past;-This cost cannot be changed by any decision in future. Investment in plant and machinery as soon as it is installed, its cost is sunk cost and is not relevant for decisions.

Amortisation of past expenses, e.g., depreciation is a sunk cost. Sunk costs will remain the same irrespective of the alternative selected. Thus, it need not be considered by the management in evaluating the alternatives as it is common to all of them.

vi. Replacement Cost:

The replacement cost is a cost at which material identical to that is to be replaced could be purchased at the date of valuation (as distinct from actual cost price at the date of purchase). The replacement cost is a cost of replacing an asset at any given point of time either at present or in the future (excluding any element attributable to improvement).

vii. Normal Cost:

The normal cost is normally incurred at a given level of output in the conditions in which that level of output is achieved. Normal cost includes those items of cost which occur in the normal situation of production process or in the normal environment of the business. The normal idle time is to be included in the ascertainment of normal cost.

viii. Abnormal Cost:

It is an unusual or a typical cost whose occurrence is usually irregular and unexpected and due to some abnormal situation of the production. Abnormal cost arises due to idle time for some heavy break down or abnormal process loss. They are not considered in the cost of production for decision making and charged to Profit and Loss Account.

ix. Avoidable Cost:

The avoidable costs are those costs which under given conditions of performance efficiency should not have been incurred. Avoidable costs are logically associated with some activity or situation and are ascertained by the difference of actual cost with the happening of the situation and the normal cost.

When spoilage occurs in manufacture in excess of normal limit, the resulting cost of spoilage is avoidable cost. Cost variances which are controllable may be termed as avoidable cost. These costs are also called as 'escapable costs'. The avoidable cost will not be incurred if an activity is not undertaken or discontinued.

Avoidable cost will often correspond with variable costs. Avoidable cost can be identified with an activity or sector of a business and which would be avoided if that activity or sector did not exist. It refer to costs which can be reduced due to a contraction in the activities of a business enterprise. It is the net effect on costs that is important, not just the costs directly avoidable by the contraction.

x. Unavoidable Cost:

The unavoidable costs are 'inescapable costs' which are essentially to be incurred, within the limits or norms provided for. It is the cost that must be incurred under a program of business restriction. It is fixed in nature and inescapable.

xi. Pre-Production Cost:

The costs incurred prior to the starting of commercial production are called as 'pre-production costs'. These costs include preliminary expenses, trail run costs etc. These costs are incurred from the initiation of project till its formal commercial production.When a new factory is in the process of establishment or a new product line or product is taken-up, a new project is undertaken, but the commercial operations have not started, during such period all costs incurred are considered as pre-production costs and are treated as deferred revenue expenditure except the costs which have been capitalized. Such deferred expenses are charged to future production.

xii. Product Cost:

The product cost is aggregate of costs that are associated with a unit of product. Such costs may or may not include an element of overheads depending upon the type of costing system in force – absorption or direct. Product costs are related to goods produced or purchased for resale and are initially identifiable as part of inventory.These product or inventory costs become expenses in the form of cost of goods sold only when the inventory is sold. Product cost is associated with unit of output. The costs of inputs in forming the product viz., the direct material, direct labour, factory overhead constitute the product costs.

xiii. Period Cost:

The period cost is a cost that tends to be unaffected by changes in level of activity during a given period of time. Period cost is associated with a time period rather than manufacturing activity and these costs are deducted as expenses during the current period without previously classified as product costs. Selling and distribution costs are period costs and are deducted from the revenue without their being regarded as part of the inventory cost.

xiv. Traceable Cost:

The traceable costs are those which can be identified easily and indisputably with a unit of operation or costing unit or cost centre. Costs of direct material, direct labour and direct expenses can be directly allocated or identified with particular cost centres or cost units and can be directly charged to such cost centres or cost units.

xv. Common Cost:

The common costs cannot be allocated but which can be apportioned to cost centres or cost units. The indirect costs are not traceable to any plant, department, operation or to any individual final product. All overhead costs are indirect costs. Cost of indirect material, indirect labour and indirect expenses in aggregate constitute the overhead costs and are the indirect component of the total cost.

The concepts of direct and indirect costs are meaningless without identification of the relevant cost unit or cost centre. Segregation of costs into direct and indirect costs is essential for proper accounting and control of costs and also for managerial decision making purpose.

xvi. Controllable Cost:

The controllable cost is a cost chargeable to a budget or cost centre, which can be influenced by the actions of the person in whom control of the centre is vested. It is always not possible to predetermine responsibility, because the reason for deviation from expected performance may only become evident later.

For example excessive scrap may arise from inadequate supervision or from latent defect in purchased material. The controllable cost is a cost that can be influenced and regulated during a given time span by the actions of a particular individual within an organization.

xvii. Uncontrollable Cost:

These costs cannot be influenced by the action of a specified member of the organization. The controllability of cost depends upon the level of responsibility under consideration. Direct costs are generally controllable by the shop level management. The uncontrollable cost is a cost that is beyond the control (i.e., uninfluenced by actions) of a given individual during a given period of time.

xviii. Short-Run Cost:

The short-run costs are costs that vary with output when fixed plant and capital equipment remain the same and become relevant when a firm has to decide whether or not to produce more in the immediate future.

xix. Long-Run Cost:

The long-run costs are those which vary with output when all input factors including plant and equipment vary and become relevant when the firm has to decide whether to setup a new plant or to expand the existing one.

xx. Past Cost:

The past costs are actual costs incurred in the past and are generally contained in the financial accounts. These costs report past events and the time lag between event and its reporting makes the information out of date and irrelevant for decision-making. These costs will just act as a guide for future course of action.

xxi. Future Cost:

The future costs are costs expected to be incurred at a later date and are the only costs that matter for managerial decisions because they are subject to management control. Future costs are relevant for managerial decision making in cost control, profit projections, appraisal of capital expenditure, introduction of new products, expansion programs and pricing etc.

xxii. Explicit Cost:

These costs are also called as 'out of pocket costs'. The explicit cost is a cost that will necessitate a corresponding outflow of cash. These costs involve cash outlay or payment to other parties. Explicit costs are relevant in some decision making problems such as fluctuation of prices during recession, make or buy decisions etc. These costs are recorded in the books of account and can be easily measured.

xxiii. Implicit Cost:

These costs are also called as 'imputed costs' or 'notional costs'. The implicit cost is a cost which doesn't involve actual cash outlay, which are used only for the purpose of decision making and performance evaluation. Interest on capital is common type of implicit cost. No actual payment of interest is made but the basic concept is that, had the funds been invested elsewhere they would have earned interest.

Thus, implicit costs are a type of opportunity costs which cannot be recorded in the books of account but are important for certain types of managerial decisions such as replacement of equipment, evaluation of profitability of two alternative courses of action.

xxiv. Book Cost:

The book costs are those which do not require current cash payments. Depreciation, is a notional cost in which no cash transaction is involved. Book costs can be converted into out of pocket costs by selling the assets and having them on hire. Rent would then replace depreciation and interest.

xxv. Shutdown Cost:

The shutdown costs are the costs incurred in relation to the temporary closing of a department / division / enterprise. Such costs include those of closing, as well as, those of reopening. The shutdown costs are defined as those costs which would be incurred in the event of suspension of the plant operation and which would be saved if the operations are continued.

Examples of such costs are costs of sheltering the plant and equipment and construction of sheds for storing exposed property. Further, additional expenses may have to be incurred when operations are restored e.g., reemployment of workers may involve cost of recruitment and training.

xxvi. Abandonment Cost:

The abandonment cost is the cost incurred in closing down a department or a division or in withdrawing a product or ceasing to operate in a particular sales territory etc. The abandonment costs are the cost of retiring altogether a plant from service. Abandonment arises when there is a complete cessation of activities and creates a problem as to the disposal of assets.

xxvii. Urgent Cost:

The urgent costs are those which must be incurred in order to continue operations of the firm. For example, cost of material and labour must be incurred if production is to take place.

xxviii. Postponable Cost:

The postponable cost is that cost which can be shifted to the future with little or no effect on the efficiency of current operations. These costs can be postponed at least for some time, e.g., maintenance relating to building and machinery.

xxix. Conversion Cost:

It is the cost incurred to convert raw materials into finished goods. It is the sum of direct wages, direct expenses and manufacturing overheads.

Type # 5. Cost Classification by Nature of Production Process:

Depending on the nature of production process, the cost can be classified into the following:

1. Batch Cost:

It is the aggregate cost related to a cost unit which consists of a group of similar articles which maintain its identity throughout one or more stages of production.

2. Process Cost:

When the production process is such that goods are produced from a sequence of continuous or repetitive operations or processes, the cost incurred during a period is considered as process cost. The process cost per unit is derived by dividing the process cost by number of units produced in the process during the period. Accounts are maintained for cost of a process for a period. The average cost per unit produced during the period is process cost per unit.

3. Operation Cost:

It is the cost of a specific operation involved in a production process or business activity. When there are distinctly separate operations involved in a process, cost for each operation is found out for effective control mechanism.

4. Operating Cost:

It is the cost incurred in conducting a business activity. Operating costs refer to the cost of undertakings which do not manufacture any product but which provide services.

5. Contract Cost:

It is the cost of a contract with some terms and conditions of adjustment agreed upon between the contractee and the contractor. Contract cost usually implied to major long- term contracts as distinct from short-term job costs. Escalation clause is sometimes provided in the contract in order to take care of anticipated change in material price, labour cost etc.

6. Joint Cost:

These are the common costs of facilities or services employed in the output of two or more simultaneously produced or otherwise closely related operations, commodities or services.When a production process is such that from a set of same input, two or more distinguishably different products are produced together, products of greater importance are termed as joint products and products of minor importance are termed as by-products and the costs incurred prior to the point of separation of the products are termed as joint costs.

For example, in a petroleum refinery industry, petrol, diesel oil, kerosene oil, naptha, tar etc. are produced jointly in the refinery process. By-product cost is the cost assigned to the by -products.

Cost Center

Definition

The Institute of Cost and Management Accountants, London has defined cost center as "a location, a person or an item of equipment (or group of these) in or connected with an undertaking in relation to which costs may be ascertained and used for the purpose of cost control."

(or)

Cost center may be defined as any location, person or item of equipment (or a group of these) for which costs may be ascertained and used for the purposes of cost control. Cost center refers to any place, person, machine, section, part, activity or function within an organization or undertaking, by which costs are collected or accumulated, and to which costs are allocated.

Cost center is, thus, a natural division of an undertaking for purposes of measuring cost of a particular operation and for applying this cost to product. Cost center in an organization is formed keeping in view the convenience of cost accumulation, comparability and control of costs. If costs are accumulated for a person or by a department or for a machine, such person, department or machine will be treated as a cost center.

In an undertaking, cost centers may be divided into two parts:

(i) Production cost centers

(ii) Service cost centers

A production cost center refers to a cost center which is engaged on regular production i.e., in converting raw materials into finished products. A service cost center is a center which is not engaged on regular production but which assists the production cost centers in carrying on their activities e.g., stores department, personnel department, maintenance department etc.

Cost centers may also be divided into operation cost centers and process cost centers; personal cost centers and impersonal cost centers. Operation cost center refers to a cost center which consists of those machines and/or persons carrying out similar operations while a process cost center is one which consists of a specific process or a continuous sequence of operations.

A personal cost center is a cost center which consists of a person or group of persons e.g., departmental foreman, salesman, supervisor, factory manager etc. An impersonal cost center refers to a cost center which consists of a location or item of equipment or a group of these e.g., machines, departments, vehicles etc.

Factors to Select a Suitable and Effective Cost Center

The selection of a suitable cost center depends on the following factors :

(a) Layout and organization of a factory:

(b) Availability of various cost data and information.

(c) The policy of the management in respect of selection of cost centers.

Classifications of Cost Center

Cost centers can easily be classified under the following three broad heads:

1. Productive, Unproductive and Mixed Cost Centres.

Factories may opt for productive cost center while administrative wing go for unproductive cost center and tool department may have a mixed cost center.

2. Personal and Impersonal Cost Center.

When the plant or a machine is taken as a unit it is the impersonal cost center and when the person or a group of persons are a unit the personal cost center is implied. “Impersonal cost centre consists of a location of item of equipment whereas personal cost center consists of a person or a group of persons,” asserts I.C.M.A., London.

3. Operation and Process Cost Center.

According to I.C.M.A., London the “operation cost center is a center which consists of those machines and/or persons which carry out the same operations,” and “process cost center is a cost center which consists of a continuous sequence of operations.

Cost Unit

After costs have been ascertained, accumulated, classified and recorded, these have to be related to a convenient measure of the quantity of the product or service. This measure of the quantity of product or service is known as ‘cost unit‘.

A cost unit is defined as “a unit of quantity of product, service or time (or a combination of these) in relation to which costs may be ascertained or expressed”. In other words, a cost unit is a standard or unit of measurement of the goods manufactured or service rendered. Cost unit may be in terms of number, length, area, weight, volume, time and value.

Characteristics of a Cost Unit

A unit of cost must possess the following characteristics:

- It must be one with which expenditure can be conveniently associated.
- It must be appropriate or natural to business operations and the product.
- It must be certain or definite and not changing from time to time.
- It must be simple to understand and to quote.
- It must have universal acceptability.

Types of Cost Units

Cost units may be divided into two parts:

(a) Simple Unit: It involves the use of a single standard or unit of measurement of the goods manufactured e.g., per piece, per kilogram, per quintal, per tonne, per gallon, per meter etc.

(b) Composite Unit or Complex Unit: It is a combination of two simple units e.g., per passenger-kilometer, per tonne-kilometer, per kilowatt-hour etc.

The terms of measurement used in cost unit are:

(i) Number

(ii) Area

(iii) Volume

(iv) Length

(v) Weight

(vi) Time

(vii) value

Cost unit is always selected very carefully which depends on the nature of business operations. The cost unit of steal is naturally ascertained in terms of per tonne. Cost of carrying a passenger by a transporter shall naturally be ascertained in cost unit of kilometer.

PROFIT CENTER

Definition: A profit center is a business unit or segment that generates revenues and incurs costs. In other words, it's a department that uses company resources to generate income. You can think of this as a segment that earns money or creates sales for the business.

What Does Profit Center Mean?

Management separates all company departments into two categories, profit centers and cost centers, in an effort to evaluate each segment's performance and the effectiveness of its management.

Example

An example of a profit center is the selling or sales department. This business segment uses company resources like rent, sales staff salaries, and utilities to generate revenues by selling products to customers. Management typically analyzes the performance of both the department as a whole and its manager. Both are evaluated on the amount that center revenues exceed costs for a period. In other words, higher-level management tends to focus on the net income of each profit center. This means that the department manager is judged not only on the amount of revenue he brings in, he is also judged on his ability to control departmental costs.

For example, current year revenues might have doubled from last year, but expenses might have tripled. In this case, the department is operating less efficiently than it could be. The department manager should focus on increasing revenues while maintaining the same cost levels.

Cost Sheet

Definition: A cost sheet is a statement which represents the various costs incurred at different stages of business operations, in a tabular format. It determines the total cost or expenditure made by the organization, along with the cost incurred on each unit of a product or service in a particular period.
The cost sheet of a business organization provides an insight into its performance and efficiency. It helps in competitive analysis and improvement of the business operations through cost reduction.

Components of Cost

An organization needs to bear multiple types of overheads while carrying out business operations. In a cost sheet, the following overheads or expenditure are presented systematically:

Prime Cost
The initial cost made for manufacturing a product, i.e., raw material, labour wages and other production-related expenses, is termed as prime cost.
Following is the equation for computing the prime cost:
Where direct material is calculated with the help of the following formula:

Works Cost or Factory Cost
The works cost is calculated by summing up the prime cost with the factory overheads and simultaneously adjusting the opening and closing stocks of work in progress. It can be denoted as:

The various indirect overheads incurred at the factory premises can be computed with the help of the following formula:
Indirect Material
The indirect material includes all the additional items used for manufacturing products, but not directly contribute as a raw material for the finished goods. It can be anything like the oil, fuel, coal, stationery items and other factory utilities.

Also, the items which are though directly used for making a product, but are inexpensive and small, are considered as indirect material. These include thread, pins, cello tape, nails, nuts, etc.

Indirect Labour

The labour or human resource engaged in all the activities other than manufacturing of goods or services which are essential to carry out the business and assist the production operations is called indirect labour.

It includes salary paid to managers, cleaning staff, security staff, drivers, etc.

Indirect Expenses

All the other overheads which are neither directly contributing to the production operations, nor they can be termed as labour or material expense, are called indirect expenses.

These are the expenses made for running the business operations smoothly. These include advertisements, depreciation, rent, electricity, insurance, taxes, repairs and maintenance, etc.

Cost of Production

The cost of production includes all the direct and indirect cost, including the material, labour and other expenses, i.e., production cost, factory cost and office or administration cost.

The following formula denotes the computation of cost of production:

After making an adjustment of the opening finished goods and the closing finished goods to the cost of production, we acquire the cost of production of goods sold.

Further, to calculate the cost of production of goods sold, the opening and closing stocks of finished products are adjusted with the cost of production. Its formula is:

Total Cost

The final value of a product or service can be determined after adding all the selling and distribution expenses to the cost of production of goods sold. The formula to find out the total cost or cost of sales is:

If the sales price of the products or service is known, the following method can be used to determine the profit:

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