

Cost Accounting: An Overview

The most important objective of any business, trade or industry is to earn maximum profits. Profit is a necessary condition for the survival of enterprise. Profit can be maximised either by increasing the price of the product or by reducing and controlling the cost of the product or by both. To increase the price has serious limitations and, therefore, it cannot be applied except in some abnormal circumstances because increase in price may lead to lesser sales and consequently to lesser profits. Thus, the only alternative for the management is to control the cost of the product.

To control the cost of product is not a simple job. It requires various types of information related to various activities and stages of production. These information should be available to the management at any moment of time. This requirement of providing extensive information at regular intervals could not be met by the existing system of accounting *i.e.* financial accounting.

Financial accounting could not pinpoint the steps to reduce and control costs. Cost accounting was evolved as a means to achieve low costs to meet the challenges of modern industry, large scale production, keen competition and complexity of the structure of production. Cost accounting is one of the branches of accounting, other main branches being financial accounting and management accounting.

Accounting

According to 'American Accounting Association' (AAA), accounting is the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information. According to this definition, the function of accounting is to provide the information about the business activities. **Robert Anthony** has rightly pointed out that "Accounting is the language of business." The basic function of any language is to serve as a means of communication. Accounting summarises financial transactions and enables the accountants to convey economic

information to various parties interested in them so as to enable them to make correct judgements. Communication is preceded by accounting process which consists of recording, classifying, summarising and interpreting. As an information system, accounting system may be shown as under :

INPUT	PROCESSING SYSTEM	OUTPUT
Business transactions in terms of money	Recording, classifying summarising, analysing and interpreting	Financial statements for communication

Accounting plays a significant role in society by providing information to a number of groups who may be directly or indirectly interested in the working of an enterprise. In order to satisfy information needs of different people, different branches of accounting have developed. Each and every branch of accounting is generally confined to its own area of operation. Following are the branches of accounting :

- (i) Financial Accounting
- (ii) Management Accounting
- (iii) Cost Accounting.

Financial Accounting

Financial accounting is the original form of accounting. **Kohler** in "*Dictionary for Accountants*" has defined financial accounting as the accounting for revenues, expenses, assets and liabilities that is commonly carried on in the general office of a business. Financial accounting is mainly concerned with recording, classifying and summarising financial transactions with a view to prepare financial statements. The main task of financial accounting is to prepare 'Income Statement' i.e. 'Profit and Loss Account' and the 'Statement of Financial Position' i.e. 'Balance Sheet'. These financial statements not only provide overall operational results of the business but also furnish valuable information to the outsiders such as shareholders, creditors, tax authorities etc. The main objective of financial accounting is to ascertain profit earned during a year and financial position at the end of the year. In spite of new accounting devices, financial accounting is limited and inadequate with regard to the information to be supplied to the management. Cost accounting and management accounting have emerged because of limitations of financial accounting.

Limitations of Financial Accounting

Although financial accounting provides overall operational results of the business to the various groups such as creditors, tax authorities, shareholders, *etc.*, financial accounting has certain serious limitations. The limitations of financial accounting may be summarised as below :

- (1) **No distinction between direct and indirect expenses :** Financial accounting does not classify expenses as direct or indirect. Hence, it is not possible to identify controllable costs and uncontrollable costs.
- (2) **Historical in nature :** Financial accounting is historical in the nature in the sense that accounting data are summarised only at the end of accounting period. Financial statements throw light on what has happened during a particular period. The impact of future uncertainties *i.e.* what will happen has no place in financial accounting. It does not suggest what should be done to increase the efficiency of the enterprise.
- (3) **Net result in aggregate :** Financial accounting shows the net result of the business as a whole. It is not possible to ascertain the profit or loss of each job, product process or department. Thus, financial accounting does not provide data for comparison of costs of different jobs, departments *etc.*
- (4) **Inadequate data for price fixation :** Financial accounting does not give any data regarding costs of departments, processes, products, units *etc.* Thus, financial accounting does not provide adequate cost figures for fixation of selling price.
- (5) **Not suitable for cost control :** Financial accounting fails to provide data for comparison of costs of different periods, jobs, departments, operations *etc.* Financial accounting discloses only the net result of the collective activities of the business as a whole. Hence, cost control is not possible in financial accounting. There is no technique in financial accounting which can help to distinguish controllable costs from uncontrollable costs. There is no procedure to assign responsibility for increase in costs, if any.
- (6) **Not helpful for decision-making :** Financial accounting does not provide data which may be helpful for decision-making by the management. Financial accounting is not helpful in fixing the prices of the products. It is not possible to evaluate various policies and programmes in financial accounting. Financial accounting does not provide information for strategic decisions like replacement of labour by machinery, introduction of a new product, expansion of capacity *etc.*

Management Accounting

Management accounting is concerned with accounting information which is useful to the management in formulating policies and controlling the business operations. According to 'American Accounting Association' "management accounting is the application of appropriate techniques and concepts in processing historical and projected economic data of an entity to assist management in establishing plans for reasonable economic objectives and in the making of rational decision with a view towards achieving these objectives." The main purpose of management accounting is to provide all the relevant information that may be required by the management to take decisions. It is also concerned with evaluation of performance of the management as an institution. Management accounting cannot be installed without a proper cost accounting system. Management accounting covers all arrangements and combinations or adjustments of the information from which top management can control the business.

Cost Accounting

Definition

Cost accounting may be defined as a specialised branch of accounting which involves classification, accumulation, assignment and control of costs. Following are some important definitions of cost accounting :

1. According to **W.W. Bigg**. "Cost accounting is the provision of such analysis and classification of expenditure as will enable the total cost of any particular unit of production to be ascertained with reasonable degree of accuracy and at the same time to disclose exactly how such total cost is constituted."
2. According to **Wheldon**. "Cost accounting is the application of accounting and costing principles, methods and techniques in the ascertainment of costs and the analysis of savings and/or excesses as compared with previous experience or with standards."
3. According to **Chartered Institute of Management Accountants (C.I.M.A.) England**. "Cost accounting is the process of accounting for costs from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units. In its widest usage, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned."

In short, cost accounting is the process of accounting for costs with the object of ascertaining, controlling and reducing costs.

Features

Following are the features of cost accounting :

- (1) Like financial accounting, cost accounting is based on the principles of debits and credits.
- (2) Cost accounting is concerned with systematic recording and presentation of financial data.
- (3) Cost accounting provides cost information. The purpose of cost accounting is to ascertain the cost per unit of production and the cost of each element of expenditure.
- (4) Cost accounting is a science as well as an art. Cost accounting is a science since it contains systematised knowledge which the cost accountant applies. Cost accounting is an art since the application of techniques and methods requires skill and judgement.
- (5) Cost accounting is supplementary to financial accounting.

Objectives of Cost Accounting

Following are the objectives of cost accounting :

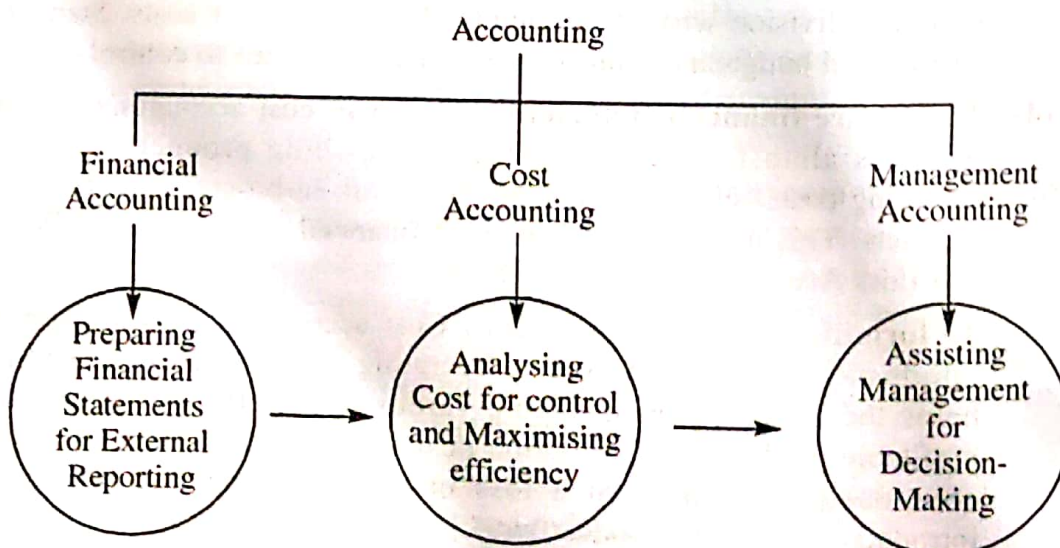
- (1) **To ascertain cost :** The primary objective of cost accounting is to ascertain the cost per unit of production and the cost of each element of expenditure, job, process *etc.*
- (2) **To determine selling price :** Another objective of cost accounting is to determine selling price by providing information about the composition of total cost of the product or service.
- (3) **To control cost :** Cost accounting involves the study of the different operations of manufacturing job-wise, department-wise, operation-wise and division-wise. This facilitates controlling of costs. Standard costing and budgetary control are costing techniques to control cost.
- (4) **To prepare financial statements :** A proper cost accounting system provides almost instant information regarding production, sales, operating costs, stock of raw-materials, work-in-progress and finished products. This helps in preparation of financial statements *i.e.* 'Profit and Loss Account and Balance Sheet.'
- (5) **To formulate operating policies :** Cost accounting provides useful information to plan and execute operating policies. Cost accounting helps the management in taking various managerial decisions like profitable product mix, utilisation of unused capacity, make or buy a component, operating at a loss or closing down the business, introduction of a new product *etc.*

Functions of Cost Accounting

Cost accounting performs many functions, more important of which are summarised below :

- (1) **To set-up and revise standards :** Standards *i.e.* indices of efficiency, are fixed and revised in the light of data provided by cost accounting.
- (2) **To compare performance with standards :** Cost accounting provides data on the basis of which performance of various divisions and departments can be compared and management can take up remedial action to control costs.
- (3) **To serve as a tool for planning and budgeting :** Cost accounting performs the basic function of acting as a tool for managerial planning and budgeting. Cost accounting provides data to make projections of future cost and product lines to be taken up.
- (4) **To serve as an index of managerial performance :** Cost accounting performs the function of providing an index of managerial performance in different sections, departments, divisions *etc.*
- (5) **To protect interests of investors :** Cost accounting compels the managers to prove their efficiency. This increases the profitability of organisation. The shareholders can expect better returns and better security of their investments.
- (6) **To report to the government :** Cost accounting performs the function of providing government with relevant data which are helpful in framing budgetary policies, taxation policies *etc.*

Relationship between Financial Accounting Cost Accounting and Management Accounting



Cost Accounting and Financial Accounting

The main function of cost accounting and financial accounting is to provide information. As such, both branches of accounting are related to each other to a very large extent.

Points of Similarity

Following are the points of similarity between cost accounting and financial accounting :

- (a) Both financial accounting and cost accounting are based on double entry system *i.e.* principles of debits and credits.
- (b) Transactions are recorded in monetary terms in both financial accounting and cost accounting.
- (c) Recording of accounting information is done in both the systems with the same basic documents.
- (d) Both systems show cost and profit.

Points of Distinction

In spite of above points of similarity, cost accounting and financial accounting differ in the following respects :

Cost Accounting and Financial Accounting

<i>Basis of Distinction</i>	<i>Financial Accounting</i>	<i>Cost Accounting</i>
1. Purpose	Its purpose is to determine profit for the accounting period and to show the financial position of the concern at the end of the accounting period.	Its purpose is to provide detailed cost information for cost ascertainment, cost control and decision making.
2. Interested groups	It provides information to external groups <i>i.e.</i> shareholders, creditors, investors <i>etc.</i>	It provides information to management.
3. Necessity	Maintenance of financial accounting is necessary to meet the requirements of the Income Tax, Companies Act and other laws of the country.	Maintenance of cost accounts is voluntary except in some industries.

4. Mode of presentation	Financial accounts are prepared according to accounting standards, accounting principles and statutory requirements.	There are no statutory provisions regarding preparation and presentation of cost accounts.
5. Recording of transactions	Transactions are recorded, classified and analysed into personal, real and nominal accounts <i>i.e.</i> according to the nature of expenditure.	Transactions are recorded, classified and analysed objectively <i>i.e.</i> , according to the purpose for which the cost is incurred.
6. Analysis of profits	Financial accounts show the profit of the business as a whole and does not show profit for each product, process <i>etc.</i>	Cost accounts show the profit made on each job, process or product.
7. Reporting	Financial accounting observes the accounting period which is normally a year.	Cost accounting makes day-to-day reporting like a movie picture. It aims at continuous reporting at short intervals say weekly.
8. Emphasis	Its emphasis is on accuracy.	Its emphasis is on timeliness.
9. Nature	It is historical in nature and is concerned with historical data.	It is concerned with historical as well as pre-determined data.
10. Control	It does not provide for adequate control over costs.	It provides for a detailed system of control over cost.

Cost Accounting and Management Accounting

Both cost accounting and management accounting are related to each other to a very large extent.

Points of Similarity

Following are the points of similarity between cost accounting and financial accounting :

- Both these accounting systems use common basic data and reports to a material degree.
- Both management accounting and cost accounting are internal to the organisation and have the same objective of helping management in decision-making.
- Both use common tools and techniques like marginal costing, standard costing and budgetary control.

Points of Distinction

In spite of above points of similarity, cost accounting and management accounting differ in the following respects :

<i>Basis of Distinction</i>	<i>Management Accounting</i>	<i>Cost Accounting</i>
(a) Contents	It deals with the effect and impact of costs on the business.	It deals with ascertainment and accounting aspects of costs.
(b) Data	Its data are derived from cost accounting and financial accounting.	Its data are derived from financial accounting.
(c) Scope	Its scope is wider and it includes tax accounting and tax planning also.	Its scope is narrower and it does not include tax accounting and tax planning.
(d) Tools and techniques	A management accountant uses many techniques other than budgetary control, standard costing and marginal costing.	A cost accountant uses budgetary control, standard costing and marginal costing as the basic tools and techniques.
(e) Emphasis	Its main emphasis is on decision-making on the part of management.	Its main emphasis is to ascertain and to control costs.
(f) Planning	It is concerned with short-term as well as long-term planning.	It is concerned with short-term planning.

Importance or Advantages of Cost Accounting

The importance of cost accounting can be discussed as under :

Importance to Management

The emergence of cost accounting is mainly to serve the needs of management. It is rightly said that "cost accounting is a tool of managerial planning and control" because cost accounting provides valuable data for planning and control. Cost accounting offers a number of advantages to the management which are given below :

- (1) **Ascertainment of Costs** : Cost accounting provides useful information of the management which helps management to ascertain the cost per unit of production and the cost of each element of expenditure, job, process etc.

- (2) **Price Fixation :** Cost accounting provides information about the composition of total cost of the product or service. This helps management in fixing-up the selling price. Cost accounting provides a reliable basis upon which tenders and estimates may be prepared.
- (3) **Measurement of Efficiency :** Cost accounting allows for proper and timely measurement of cost and consequently efficiency. Management can measure the efficiency by distinguishing between profitable and unprofitable activities. Management can devise the measures to remove inefficiency.
- (4) **Inventory Control :** Cost accounting furnishes information which management requires in respect of inventory control which improves the efficiency of the plant. Various cost accounting techniques like perpetual inventory system, ABC analysis *etc.* facilitate better inventory control.
- (5) **Managerial Control :** The managerial control involves the measurement of actual results of the operation of an organisation in relation to results which were planned for that organisation. Since cost accounting provides systematic and comparative reports about the actual costs of operations properly analysed and points to various corrective actions needed to be taken, it becomes an useful tool of managerial control. It aims at reducing waste, securing economies, better selling and higher profit.
- (6) **Helpful in Maximising the Profits :** Cost accounting helps in increasing the profits by disclosing the sources of loss of waste and by suggesting such controls so that waste, leakage, spoilage and inefficiencies of all departments may be detected and prevented. It enables the management a periodical determination of profits or losses without resort to stock-taking.
- (7) **Useful in the period of Depression and Competition :** Cost accounting is useful to management in all the times including the period of boom and demand revival. But the need for having a thorough system of costing is greater in the periods of trade depression, trade competition and seasonal variations. It indicates how wastes can be eliminated and economies incorporated in the production plan. The management must know the actual cost before adopting any scheme of price reduction.
- (8) **Data for Financial Statements :** Adequate costing records provide to the management such data as may be necessary for preparation of profit and loss account and balance sheet.

Importance to Creditors

Creditors are immensely benefitted by the installation of a costing system. Creditors can base their judgement about the profitability and future prospects of the enterprise upon the studies and reports submitted by the cost accountants. Installation of a costing system implies improved performance, profitability and the growth of the organisation. This means assured return and increasing security. It has become a policy with most of the banks that no loans to industrial firms are made unless such firms have complete cost accounting system which produce cost reports showing satisfactory trends.

Importance to Employees

Cost accounting is also beneficial to the employees of the organisation. A good cost accounting system promotes the cause of the employees. Workers are benefitted because they are remunerated by results and wage negotiations. Employees benefit because of the system of incentive plans and bonus *etc.* which is instituted to promote cost reduction. This means that the employees of all types get more “take home” pay. Besides, cost accounting tries to eliminate the bad effects of seasonal variations and a slump in demand by careful production planning. It promotes continuous employment of employees. Thus, workers get benefit indirectly through increase in consumer goods and directly through larger remuneration and continuous employment.

Importance to National Economy

An efficient costing system benefits the economy as under :

- (1) An efficient costing system brings prosperity to the concerned business enterprise. This results into stepping up of the government revenue in form of more direct and indirect taxes.
- (2) Since cost accounting promotes efficiency and optimum utilisation of resources of firms, it leads to stability in their functioning.
- (3) Control of costs, elimination of wastages and inefficiencies lead to the progress of the industry and in consequence of the nation as a whole.
- (4) Efficiency brought about by cost accounting leads to reduced prices for the consumers.

Objections against Cost Accounting

Cost accounting is a very useful branch of accounting which renders great assistance to management in the running of a business. But being an empirical science, cost accounting has its own limitations. Sometimes it is said “cost accounting is an unnecessary luxury for business establishments.”

Following are some objections raised against cost accounting :

- (1) **It is unnecessary :** It is often said that cost accounting is not necessary. A good number of enterprises have conducted their business without

cost accounting and that too quite efficiently. It means that it is possible to conduct business even without cost accounting. But this argument does not hold good today. Today, in the age of competition, every enterprise has to lower the selling price of its products which is possible only when the enterprise has installed costing system.

- (2) **It is inapplicable :** It is often argued that cost accounting cannot be applied to all types of industries; costing can be applied only in manufacturing enterprises. But this is not true. Cost accounting has a very wide application and can be used in all types of business whether manufacturing or non-manufacturing.
- (3) **It is a failure :** It is often argued that many business houses have failed in spite of having a system of cost accounting. However, if a business fails, blame cannot be laid on a system of cost accounting. There can be other reasons for the failure of the business.
- (4) **It is expensive :** The most powerful argument against the cost accounting is that costing system is expensive *i.e.* it involves a considerable amount of expenditure to instal and run since it requires apportionment of costs and absorption of overheads requiring huge amount of clerical work.
- (5) **Problem of reconciliation of cost and financial accounts :** The information and results shown by cost accounts are different from that of financial accounts. It is a very difficult and costly to reconcile the two types of accounts.
- (6) **Cost differences :** The principles of cost accounting keep on changing. Further, there is divergence in cost accounting procedures. Different procedures may be adopted for apportioning overheads and joint costs. Thus, the costs of production of two enterprises may differ due to different procedures adopted by them.

Most of the above objections can be easily eliminated by adopting the general principles of cost accounting. The most serious objection is that introduction of cost accounting is expensive. But expenditure incurred on installation of cost accounting should be treated as an investment. In the age of competition and cost-consciousness, cost accounting is a must for each manufacturer.

General Principles of Cost Accounting

The general principles of cost accounting are given below :

- (1) **Costs are related to causes :** Costs are related to their causes *i.e.* cost centres of cost units. For example, a supervisor's salary cannot be usually pinned down to single cost unit but it should be so recorded that such a cost is shared only among the cost units passing through that supervisors' department and not among any units lying outside his department.

- (2) **A cost is charged only after it is incurred :** A cost is not charged until it is incurred. For example, selling costs should not be charged to the cost units which are still in factory; selling costs should be charged to the cost units which have been sold.
- (3) **Prudence concept is ignored :** Prudence concept or concept of conservatism is ignored in cost accounting. If it is not done, there is a danger that cost accounts would not reveal accurate picture of state of affairs and cost would no longer be purposeful and comparable. For example, closing stock is valued at cost in cost accounts but valued at cost or market price whichever is less in financial accounts.
- (4) **Abnormal costs are not included in costs :** Abnormal costs refer to costs of abnormal nature *e.g.*, loss due to fire, accident, negligence *etc.* Abnormal costs are not related to economic performance of the managers. Their presence in costs would distort cost figures and mislead the management as to economic performance of managers in normal conditions. For example, charging cost of abnormal time to a job would give misleading information about the efficiency of the manufacturing department.
- (5) **Past costs are not charged to future period :** A past cost is one from which no more benefit is expected. A past cost, if not recovered or charged in full during the period concerned, is not taken to a future period for recovery. If past costs are included in future periods, it would distort the performance figures for the periods which may mislead management.
- (6) **Double entry system is applied :** In cost accounting also, double entry systems is followed. This will ensure that all costs have been accounted for and chances of errors in cost records are minimised.

Characteristics of a Good System of Cost Accounting

Cost accounting system means a formal mechanism to accumulate and record the costs in an organised and orderly manner. A good system of cost accounting must possess the following characteristics :

- (1) **Open system :** A system should be an open system. A system is said to be open if it exchanges information energy or material with the environment. It should not be functionless.
- (2) **Information :** It is necessary to avoid the provision of two systems producing the same information in a different form.
- (3) **Feedback :** A cost accounting system must have a feedback *i.e.* an information to show whether the system is actually achieving what was aimed at of it.
- (4) **Sub-system :** A cost accounting system should be treated only a sub-system of a larger system *i.e.* the business organisation.
- (5) **Cost benefit study :** The benefit from the proposed cost accounting system should far exceed the cost involved. Cost of installing the system may be kept low only if minimum necessary changes are made in the existing organisational structure.

Cost Accountancy

“Cost Accountancy” is a wider term than cost accounting and includes cost accounting. According to **C.I.M.A. England**, “Cost accountancy is the application of costing, the cost accounting principles, methods and techniques to the science, art and practice of cost and the ascertainment of profitability. It includes the presentation of information derived therefrom for the purpose of management decision-making.” Cost Accountancy is, thus, the science, art and practice of cost accountant.

Cost accountancy is science because it is a body of systematic knowledge which a cost accountant should possess to discharge his functions properly. Cost accountancy is an art because it requires ability and skill on the part of a cost accountant in applying the principles of cost accountancy to the various problems like ascertainment of costs, control of costs, ascertainment of profitability, replacement of plant and technology, fixation of price *etc.* Cost accountancy is also the practice of a cost accountant because a cost accountant has to make continuous efforts to present the information for the purpose of managerial decision-making.

Cost accountancy includes the following :

- (1) Cost accounting
- (2) Costing
- (3) Cost control
- (4) Cost audit.

Since cost accounting has already been discussed, remaining points are discussed in brief as under :

Costing

C.I.M.A England has defined the costing as “the technique and process of ascertaining costs.” **Wheldon** defines costing as “classifying, recording and appropriate allocation of expenditure for the determination of the costs of products or services, and for the presentation of suitably arranged data for the purposes of control and guidance of the management. It includes the ascertainment of the cost of every order, job, contract, process, service or unit as may be appropriate. It deals with the cost of production, selling and distribution.” Thus, costing deals with the procedure of ascertaining cost of products or services. The technique of costing involves following steps :

1. Collection of expenditure.
2. Classification of expenditure according to the elements of cost.
3. Allocation of expenditure to the cost centres or cost units.
4. Apportionment of expenditure to the cost centres or cost units.

Costing should not be confused with cost accounting. Costing can be carried out arithmetically where as cost accounting is the formal mechanism by means of which costs are ascertained.

Cost Control

Cost control is the application of costing to control the cost. Cost control has been defined as the “guidance and regulation by executive action of costs of operating on undertaking.” Cost control is concerned with keeping the costs within prescribed limits. Cost control is exercised by comparing the actuals with the budgets or standards and taking the corrective action wherever necessary. Cost control is the subject-matter of periodic review, *e.g.*, the review of standard costs at regularly stated intervals. Standard costing and budgetary control are the two popular techniques of cost control.

Cost Audit

C.I.M.A England defines cost audit as the “verification of cost accounts and a check on the adherence to the cost accounting plan. It is an independent expert examination of the cost accounts of different output of an undertaking and a verification whether such accounts of the different output, serve the purpose intended.” Cost audit, therefore, implies checking up the correctness of cost accounts and verifying if costing principles and techniques have been applied.

Distinction between Costing, Cost Accounting and Cost Accountancy

Following table shows the distinction between costing, cost accounting and cost accountancy :

<i>Basis of Distinction</i>	<i>Costing</i>	<i>Cost Accounting</i>	<i>Cost Accountancy</i>
(i) Persons involved	The persons involved are cost clerks.	The person involved is cost accountant.	The person involved is management accountant.
(ii) Function	It is concerned with ascertainment of cost.	It is concerned with recording of cost.	It is concerned with formulation of costing principles, techniques and methods.
(iii) Scope	It is narrower in its scope. It is a part of cost accountancy.	It is broader in its scope. It is a part of cost accountancy.	It is broadest in its nature. It includes costing and cost accounting
(iv) Periodicity of functioning	It begins where cost accountancy ends.	It begins where costing ends.	It is a starting point.

Methods of Costing

A method of costing is merely collection and presentation of costs for the purpose of ascertaining the cost. Method of costing differs from industry to industry because method of costing primarily depends on the nature and type of manufacturing process. Basically, there are two methods of costing, (a) specific order costing (job costing) and (b) process costing. All other methods of costing are variation of these two basic methods. Following are the main methods of costing :

(1) Unit or Single Output Costing

Unit or single output costing is that method of costing in which costs are ascertained per unit of a single product in a continuous manufacturing activity. It is used by concerns producing a single product or few products which are identical and capable of being expressed in simple quantitative units. The cost per unit is arrived at by dividing the total cost during a given period by the total number of units produced during the same period. Unit or single output costing method is extensively used in following industries :

- | | |
|------------------|--------------------------|
| (a) Brick-making | (e) Breweries |
| (b) Mines | (f) Cement manufacturing |
| (c) Quarries | (g) Flour mills |
| (d) Oil drilling | (h) Dairies |

(2) Job Costing

Job costing is that form of specific order costing which applies where the work is undertaken to customer's special requirements. Under job costing, cost is compiled for a specific job, work-order or project separately. Each job is separately identified. Job costing is usually adopted by the concerns where a specific job is done for a stipulated price. Job costing is extensively used in following industries :

- | | |
|-------------------------|-----------------------------------|
| (a) Foundries | (e) General engineering workshops |
| (b) Printing press | (f) Automobile garage |
| (c) Repair shops | (g) Interior decoration |
| (d) Musical instruments | (h) Furniture-making |

(3) Batch Costing

Batch costing is that form of specific order costing which applies where similar articles are manufactured in lots either for sale or for use within the undertaking. In batch costing, batch of similar products is treated as a job. Costs are collected for the batch as a whole and cost per unit is ascertained by dividing the total cost of batch by the number of units produced in a batch. Batch costing is best suited to the manufacturing concerns which manufacture components in a relatively small quantities. Batch costing is applied in following industries :

- (a) Readymade garments
- (b) Toys
- (c) Drugs
- (d) Spare parts and components
- (e) Cosmetics
- (f) Biscuits

(4) Contract Costing

Contract costing is that form of specific order costing which applies where the work is undertaken to customer's requirements and each order is of long duration as compared to job costing. A contract is a big job which takes a long time to complete. A contract is usually undertaken for a fixed price which is payable by instalments according to the progress of work done and approved. Each contract is treated as cost unit. Contract costing is used in following industries :

- (a) Construction of plant
- (b) Construction of bridges, roads and dams
- (c) Ships
- (d) Building
- (e) Motion pictures

(5) Process Costing

Process costing is a method of costing which is used to ascertain the cost of the product at each process (stage) of manufacture. The entire production activity is characterised by a number of stages of production *i.e.* processes. Processes are separate and independent but inter-related. Costs are ascertained for each process at the end of cost period. Unit cost of each process is obtained by averaging the total cost of each process. Process costing is used by the industries where the goods are produced through the sequence of several processes and each process is a cost centre. Process costing is used in following industries :

- (a) Paint
- (b) Oil refining
- (c) Rubber
- (d) Chemicals
- (e) Sugar
- (f) Textiles
- (g) Electronic articles
- (h) Paper

(6) Operating or Service Costing

Operating or service costing is a method of costing which applies where services are provided. This method is used to ascertain the cost of services rendered. There is usually a compound or composite unit in such undertakings. Operating costing is applied in following industries :

- (a) Transport undertakings
- (b) Hospitals
- (c) Hotels
- (d) Power generation
- (e) Power distribution
- (f) Consultancy

(7) Multiple or Composite Costing

Multiple or composite costing is a method of costing which combines the features of more than one method of costing. Multiple costing represents the application of more than one method of costing in respect of the same product. This method is suitable for industries where a number of component parts are separately produced and subsequently assembled into a final product. In such industries, each component differs from the others as to price, material used and process of manufacture undergone. Therefore, it is necessary to ascertain the cost of each component by different system of costing *e.g.*, job costing, batch costing, process costing *etc.* This method is used in following industries :

- | | |
|-----------------|-----------------|
| (a) Cycles | (d) Typewriters |
| (b) Automobiles | (e) Aeroplanes |
| (c) Engines | (f) Computers |

Techniques of Costing

Apart from methods of costing, there are some techniques of costing also. A technique of costing means a special application of costs for controlling costs and making managerial decisions. Following are important techniques of costing :

(1) Marginal Costing

Marginal costing is a technique of costing which distinguishes fixed costs and variable costs. In marginal costing, only variable costs are charged to cost units. Fixed costs are not included in the cost of production; they are written off and charged to Profit and Loss Account of the period during which costs are incurred. The profitability of the products and departments is determined in terms of the contribution *i.e.* sale value *minus* variable cost of sales. Marginal costing is an aid to management in decision-making such as pricing, to make or buy decision, selecting the most profitable mix, accepting foreign orders at lower price, reduction of price *etc.* Marginal costing helps the management in evaluating the profitability of alternative operations.

(2) Standard Costing

Standard costing refers to the principles and procedures which involve the use of the pre-determined costs (known as standard costs) relating to each element of cost of which each product is manufactured or service is rendered. Standard costing is a technique of costing which compares the standard cost with actual cost to ascertain the deviation so that corrective action may be taken immediately. The detailed analysis of variances by causes helps to pinpoint the responsibility. Standard costing serves as a yardstick of performance. It helps to focus attention on points where action is needed. Standard costing facilitates "management by exception."

(3) Uniform Costing

Uniform costing is the use of same costing principles and practices by several undertakings for common control or comparison of costs. Uniform costing entails that there are uniform definitions of different items like labour, materials and overheads *etc.* For uniform costing, there should be uniformity of certain principles and of approach towards the collection and treatment of expenses. Uniform costing provides a basis for cost comparison between undertakings in the same industry. It helps trade associations in regulating the production capacity, utilising surplus productive capacity, deciding on price policy *etc.*

Factors to be Considered before Installation of a Costing System

The preliminary considerations governing the installation of a cost accounting system may be listed as under :

- (1) **Nature of business :** No single system of cost accounting can be suitable for every type of business. Cost accounting must be designed to suit the nature and purpose of business. The existing organisation should be disturbed as little as possible. Selection of proper system of costing should be made only after thorough study of the nature of product, stages of production, operations involved *etc.*
- (2) **Nature of product :** The nature of the product determines to a large extent the type of cost accounting system to be adopted. A product requiring high value of material requires an efficient system of material control. Similarly, a product requiring high value of labour requires efficient time keeping and wage systems.
- (3) **Objective :** The objectives and information which the management wants to achieve and acquire are also considered. If the management wants to expand its operations, the system of costing should be designed to give maximum attention to production aspect. On the other hand, if the concern has limited market for its products and it wants to increase the sales, the selling aspect would require greater attention.
- (4) **Informal organisation :** Besides finding out the formal organisation structure, the cost accountant should try to estimate the role of the informal organisation. This would help him to solve various problems which may remain unsolved within the formal organisation structure.
- (5) **Informative and simple :** The costing system to be introduced should be simple and informative. It should be capable of furnishing all types of information required, regularly and systematically so that continuous study and check-up of the progress of business is possible. Printed forms should be used and they should be standardised as regards their sizes and contents with instructions printed. Standard printed forms make the information clear, intelligible and detailed.

- (6) **Prompt-reporting** : The cost data should not only be accurate but should also be made available promptly and regularly so that decisions can be taken as quickly as possible.
- (7) **Maintenance of records** : Accumulation of costs information necessarily means maintenance of detailed cost records. A choice should be made between integral and non-integral accounting of systems. In case of integral accounting of system, no separate set of books are maintained for costing transactions. They are written with financial transactions into one set of books. In case of non-integral costing system, separate books are maintained for cost and financial transactions and at the end of the accounting period, the results of the two sets of books are reconciled.
- (8) **Flexibility** : Cost accounting system should be flexible and capable of adapting to the changing requirements of the business.

Practical Difficulties in Installation of a Costing System

When a costing system is installed, a number of practical difficulties arise. These difficulties may be listed as under :

- (1) **Lack of support from management** : When a costing system is newly introduced, there may be opposition from the various managers as they consider it as an interference and check on their activities. They may resist the additional work involved in the cost accounting system. However, this difficulty may be solved by taking the top management into confidence before installing cost accounting system.
- (2) **Resistance from existing staff** : The installation of cost accounting system may create a feeling in the minds of existing staff that they would be declared redundant under the new system. However, this difficulty may be solved by assuring the existing staff that costing system would not replace but strengthen the existing system and costing system will open them new areas of their development.
- (3) **Non-cooperation at other levels** : The foreman, factory manager, store-keeper and other supervisory staff may resent the additional paper work and may not cooperate in making the system a success. They may not provide the basic data which is very much essential for the success of the system. This problem can be overcome by taking them into confidence before installing the system. They should be made aware of advantages which will accrue to them and to the organisation as a whole on account of efficient working of the system. This needs reorientation and education of employees.
- (4) **Shortage of trained staff** : Costing is a specialised job and requires qualified staff. In the beginning qualified staff may not be available. This difficulty can be solved in two ways : (i) giving the existing staff requisite training and (ii) recruiting the additional staff.