
Unit 1 □ Basics of Cost and Management Accounting

Structure

- 1.1 Introduction**
- 1.2 Cost Accounting**
- 1.3 Objectives of Cost Accounting**
- 1.4 Cost Accounting vs. Financial Accounting**
- 1.5 Cost Accounting vs. Management Accounting**
- 1.6 Methods of Costing**
 - 1.6.1 Job Costing**
 - 1.6.2 Process Costing**
 - 1.6.3 Farm Costing**
- 1.7 Techniques of Costing**
- 1.8 Advantages of Cost Accounting**
- 1.9 Limitations of Cost Accounting**
- 1.10 Need for Costing**
- 1.11 Installation of a Costing System**
- 1.12 Questions**
- 1.13 Select Readings**
- 1.14 Hints for Solution**

1.1 Introduction

Information is one of the bases of all decision making. Today's managers have to take quick decisions on a variety of issues most of which may be newer ones, particularly so in the context of globalization. Information is also needed by various interested external parties like creditors, investors, customers, etc. All these call for appropriate and relevant information. An accounting system is regarded as one of the basic sources of information generation. But Financial Accounting is designed to serve the needs mainly of external users. The deficiency, *inter alia*, of financial accounting in satisfying the information needs of management may be traced to be the major force behind evolution of Cost Accounting. Cost Accounting is specialized to deal with the cost and priced data of the products and services. It again leaves aside other information-needs of the management. For example, management has to take decisions

about the capital structure (composition of debt and equity), the sources of finance, the rates of dividend to be declared, the investments to be made, etc. So, limitations of cost accounting have led to the development of another branch of accounting termed as Management Accounting.

1.2 Cost Accounting

Cost Accounting is a process of determining costs of products and services. Naturally, it involves identification of the items of costs at the point at which they are incurred or committed to be incurred; it may also require arrangements for accumulation, classification and summarization of different cost items so identified for their meaningful interpretation. The term 'Cost Accounting' has been defined in the Terminology of the Chartered Institute of Management Accountants (CIMA, formerly named as the Institute of Cost & Management Accountants) of England as "that part of management accounting which establishes budgets and standard costs and actual costs of operations, processes, departments or products and the analysis of variances, profitability or social use of funds". The earlier definition of 'cost accounting' given by the erstwhile Institute of Cost and Management Accountants, London, reads as "the process of accounting for cost 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." Clearly, over time, the scope of cost accounting has been widened. Gradually, it has stepped into the area of Management Accounting.

1.3 Objectives of Cost Accounting

Cost Accounting serves many useful purposes. So, Cost Accounting aims at achievement of those objectives. Some such important objectives are enumerated below :

- i) Ascertainment of costs of products, processes, operations, services, departments or any part of them is the prime objective of cost accounting. Such data may again serve the purposes of cost management and pricing.
- ii) It provides cost data which are very much used for planning and control purposes. Budgetary control and standard costing are two important tools for this purpose.
- iii) It provides cost information required for long term and short term decisions.
- iv) It provides a basis for measuring profitability.

1.4 Cost Accounting vs. Financial Accounting

There are certain differences between the two in different aspects. These are stated below :

- i) While Financial Accounting primarily aims at serving the users external to the business unit, Cost Accounting provides information mainly for internal consumption.
- ii) Basic statements of accounts in Financial Accounting are Profit and Loss Account, Balance Sheet and Cash Flow Statement which are prepared following certain principles (Generally Accepted Accounting Principles or GAAP) and provisions of statutes like the Companies Act and the Income Tax Act. In Cost Accounting various statements showing as ascertainment etc. of costs may be prepared product-wise, department/operation-wise with/for shorter and longer periods, depending on needs on the management.
- iii) In case of Financial Accounting, the object of accounting (about which accounting is done) is the whole of a unit or its branch; it does not climb down the level of a product, process, a particular service or a component part of them. Cost Accounting, on the other hand, helps us in ascertaining costs on individual basis (cost per head), time basis (cost per hour) or on location basis (cost of holding a class), etc. So, Cost Accounting is suitable for micro level application.
- iv) Financial Accounts are finalized at periodical intervals more or less regularly—yearly, half-yearly or quarterly. But Cost Accounting allows preparation of reports and statements for a period of any desired duration—monthly, weekly, daily or even hourly.
- v) Financial Accounting records only those events and transactions which are measurable in monetary terms. The scope of Cost Accounting is much wider in the sense that it makes use of any measurement unit considered suitable; sometimes composite units like man-days, per head per Kilometer, etc, are also used.
- vi) Financial statements (The Profit and Loss Account and the Balance Sheet) are the final products of Financial Accounting. They convey the results of past operations and the present financial position. They do not carry any information about the future and hence Financial Accounting is of very limited use for control purposes. Such statements may vary from organisation to organisation in the absence of standardised forms. It is, therefore, more useful to the management for various decision-making, policy determination and control actions. But Cost Accounting facilitates cost management and control.

- vii) Financial Accounting is adopted independently and is universal in its application. The need for Cost Accounting is not universal. It performs only a supplementary role. Though records are maintained separately for Cost Accounting, an organization can not depend only on Cost Accounting. We can not think of an organization adopting Cost Accounting without having installed any system of Financial Accounting; but the reverse is feasible.
- viii) Financial Accounting is a continuous process while Cost Accounting may be intermittent in its application and may, therefore, lack in antecedent relationship.

1.5 Cost Accounting vs. Management Accounting

Before making any attempt to compare and distinguish between Cost Accounting and Management Accounting, it is necessary to have an idea about Management Accounting. In non-technical term, Management Accounting is a kind of accounting meant for the management. Of the many definitions given by many authors, only two are presented here to have a preliminary idea about Management Accounting. The first one given by the Institute of Cost and Management Accountants, London, defines it as ‘the application of professional knowledge and skill in the preparation of accounting information in such a way as to assist management in the formulation of policies and in the planning and control of the operation of the undertakings’. The other definition has been given by the National Association of Accountants, U.S.A. It defines Management Accounting as ‘the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate and control within organization and to assure appropriate use of and accountability for its resources. Management Accounting also comprises the preparation of financial reports for non-management groups, such as shareholders, creditors, regulatory agencies, and tax authorities’. The latter definition is more comprehensive.

Some of the Cost Accounting techniques (marginal costing, standard costing, budgetary control, etc.) are also used in Management Accounting. Accordingly Management Accounting is regarded as an extension over Cost Accounting. Nevertheless, the following distinctions between the two may be worth noting :

- i) While determination and control of costs are the prime objectives of cost accounting, supply of appropriate information relevant to managerial decision-making is the basic objective of Management Accounting.
- ii) In Cost Accounting, control function works with pre-determined standards and attempts to rectify mistakes in work performance and also to improve the work

efficiency. Management Accounting, on the other hand, mainly deals with the various aspects of productivity, profitability, financing, investment, etc. It also keeps a constant vigil on the correctness of the standards themselves, revises them when necessary and attempts to improve them.

- iii) Cost Accounting focuses on operation of the current period but the main focus of Management Accounting is the future operation.

1.6 Methods of Costing

One of the prime objectives of Cost Accounting, as stated earlier, is ascertainment of costs for goods produced or services rendered. But the method of ascertaining costs is not same for all the products or services. Different methods are used to suit the varying nature of the products or the production processes involved. Actually, the process of identification of costs gets complicated or becomes different in different situations. For a meaningful and desired interpretation of the costs so identified for producing goods or rendering services, the modes of presenting the costs are also varied. However, the principle of ascertaining costs i.e., aggregating different items of costs relevant to production remains the same in each case. So, different methods of costing depending on the differences in the process of collating the costs and presenting them have been evolved. All such methods can broadly be grouped into three :

- A. Job Costing,
- B. Process Costing, and
- C. Farm Costing.

There are again three different approaches behind the above three methods. These are :

- i) Product approach,
- ii) Period approach, and
- iii) Activity approach.

In *product approach*, primary cost object is product as in the case of Job Costing where costs are ascertained for each job (representing a product or a group of similar products) separately. In *period approach*, emphasis on ascertaining costs is on period; periodical costs are ascertained first, which are then distributed over the volume of productions during the period. The third approach i.e., *activity approach* puts emphasis on the different *activities* involved in the production process; the activity costs are then compiled to arrive at product cost. The system of costing which focuses on activities is popularly known as **Activity Based Costing**.

While product approach is followed in Job Costing, period approach is found to be suitable in both the methods of Process Costing and Farm Costing. Activity Based Costing can also be used in Job Costing as well as in Process Costing.

1.6.1 Job Costing

In some cases goods are produced or services are rendered on the basis of the specific orders of the customers. It is needless to mention that product specifications (volume, design, etc.) may vary from customer to customer. The basic objectives in such cases are determining costs and profit or loss for each of the jobs undertaken. This method is very popular in use in industries like tailoring, printing, ship-building, house-building, machine-tools repairing, carpentry, research projects, etc. This method of costing, however, has the following two variants :

a) *Batch Costing* : A batch refers to a group of similar products. In some cases, production operation is run for producing goods in batches either on the basis of the orders received or on the basis of an assessment of customers' demand for the goods. Each batch is treated as a job and costs are incurred and ascertained for each job separately. Unit cost of a product is computed by dividing the cost for a batch by the number of products in the batch. Batch Costing is used in toy making industry, pharmaceutical industry, bakeries, biscuits industry, electronic goods manufacturing, readymade garments manufacturing, etc.

b) *Contract Costing* : This method is applied for ascertaining cost of each contract entered into with the customers for manufacturing goods according to the specifications of the customers. The basic features of this type of contracts are : performance of the contract usually takes longer time, involves huge amount, and the nature of the jobs demands operations to be carried out at the place of the customer as in the case of civil contracts, etc. As the costing operation terminates with the completion of the contract, it is also termed as Terminal Costing.

1.6.2 Process Costing

In some cases manufacturing operations involve passing through a number of distinct stages or processes and very often the operations at these processes are carried out continuously without any break for a long period of time. Costs are not directly identifiable with each unit of product. Therefore, the costs of each process are computed and then accumulated by charging the cost of transfer to the transferee-process. Unit cost of the product is arrived at by applying method of averaging at the final stage.

This method of costing is suitably applied in industries like chemicals, paper, textiles, rubbers, steel, food processing, soap, paints, cement, mining, etc.

Process Costing also has a number of variants. These are :

a) *Output/Single Output/Unit Costing* : This method is used when production process is continuous and individual items of identical products are produced simultaneously. Unit cost of output is computed by dividing the total cost of production by the total number of units produced. This method is suitable for use in brick-fields, paper mills, steel works, flour mills, etc.

b) *Departmental Costing* : When a product passes through a number of departments and gets completed using manufacturing services in each department, the cost of the products is ascertained by aggregating the proportionate cost of services of all these departments. The cost of services in a department can be computed by first ascertaining the total cost of the department and then dividing the total cost by the total number of productions in the department.

c) *Operation Costing* : A process may sometimes be further broken down into a number of distinct operations costs of which may be separately ascertained. The method of ascertaining costs of operations is similar to that of Departmental Costing. This method is applied in industries which are involved in mass production of repetitive nature and products are standardised.

d) *Operating Costing* : This method is specifically applied in industries which provide services instead of producing goods. Such industries include transport, hospitals, educational institutions, canteen, telephone booth, etc. It is also termed as Service Costing or Function Costing. Following this method, cost of providing a service is ascertained, which is divided by the number of units of services rendered to get the unit cost. The peculiar feature of operating cost is that it requires composite unit (a combination of two cost-units) for expression. Some of the examples of composite units are : passenger-k.m., bed-days, Ton-k.m., Kilowatt-hour, etc.

In some cases, production process involves assembling a number of components produced separately. While job costing may be suitable for determining cost of production of some such components, process costing may be applicable for others. Determining cost of production of the final product in such a case involves use of both the job and process costing. This combined method of costing is, therefore, termed as '**Composite or Multiple Costing**'. It is applied in industries engaged in complex production like manufacturing cycles, motor-cars, aeroplanes, radios, televisions, computers, etc.

The basic distinction between job costing and process costing lies in the presence or absence of the likeness in the goods produced. In situation where job costing is used the produced goods are generally not alike while process costing is used by

industries which are engaged in mass production and naturally the produced goods are all alike. So, in job costing costs are determined for each individual unit or batch of goods produced. Unit cost in process costing is determined by means of averaging.

1.6.3 Farm Costing

The above methods (either job costing or process costing) of ascertaining costs cannot be suitably applied for ascertaining cost of production of farm produces. Farm Costing may be defined as the method of costing that may be used for ascertainment of farm costs. Since the nature of the farm produces and also the processes involved in raising crops/live stocks have peculiar differences from those of the industrial products, there is a necessity for a different method of costing. Some of the points of peculiarities of farm productions are—utilisation of live stocks; using outputs of a farm as inputs in the same farm even for raising the same crop; exchange transaction; notional transaction; too much dependence on nature; lacking scope for standardization in input use, output, production process, determining accounting periods, etc.

1.7 Techniques of Costing

As distinguished from the methods of costing indicating the means of ‘collating and presenting’ cost, the techniques of costing refer to the principles to be followed in ascertaining costs of products, jobs or processes. Accordingly, different costing techniques may be used in each of the different costing methods. While choosing a particular method the main considerations are the nature of the product, production method, size of the concern, etc., the objectives or purposes of cost ascertainment primarily guide the choice of a technique. The different techniques of costing which are in common use are :

- a) Absorption Costing,
- b) Marginal Costing,
- c) Standard Costing,
- d) Uniform Costing,
- e) Life Cycle Costing and
- f) Target Costing.

These are discussed below in brief.

a) *Absorption Costing* : Under this technique all the costs that are incurred are charged to products, jobs or processes. Since full costs after they are incurred are absorbed in the job, product or process, it is also termed as *full costing*, *total costing* or *historical costing*.

b) *Marginal Costing* : Under this technique total cost that is incurred is segregated into fixed and variable parts and the latter part only is considered to be relevant for ascertaining product cost. Excess of revenue (out of sale of product) over its variable or marginal cost is termed as contribution. Contributions from all the products form a 'Contribution pool' which is used to absorb the fixed costs. Marginal costing is very much useful in many decision making situations. Since this technique recognizes only the direct or variable cost, it is also termed as *direct costing* or *variable costing*.

c) *Standard Costing* : Standard Costing makes use of standard costs of each of the elements of a product for comparison with the actual costs of the corresponding elements. Such comparison helps in identifying the deviations (called variances) which call for remedial actions. That way it is very useful for control purposes.

d) *Uniform Costing* : It is not a technique used for ascertaining cost. It rather refers to the uniform use of any costing method, principle and technique by a number of undertakings. Accordingly, application or adoption of marginal costing technique by a number of undertakings may be considered to be a case of Uniform Costing. Since it facilitates comparability uniform costing ensures inter-firm as well as intra-firm comparison at both the national and international level.

e) *Life Cycle Costing* : It is a technique to consider total cost of a product during its entire economic or useful life. Contrary to the techniques of costing as discussed above, which consider only cost of manufacturing, a share of the costs of administration and marketing as product costs, lifecycle costing recognizes pre-manufacturing (designing, developing, etc.) and post-selling costs (after-sale servicing, disposal stage costs) as parts of product cost. Another distinguishing feature is that the total cost throughout the product life-cycle is spread over the total productions during the entire period of the life-cycle. That way, it may so happen that the actual cost of the current productions during a specified period may be more or less than the attributed cost of the said productions. It is claimed that cost control and product pricing are facilitated under life-cycle costing technique owing to its emphasis on individual product and its life-cycle.

f) *Target Costing* : It is a technique to plan (rather than determining) product cost so as to keep it at the target level. Target level of cost, actually termed as 'target cost', is, however, determined by subtracting target profit margin from the target price. In other words,

$$\text{Target Cost} = \text{Target price} - \text{Target profit.}$$

Target price is estimated on the basis of the value of the product to the customer as perceived by the company. It is worth mentioning that this is done during market research stage i.e., well before the product designing and manufacturing stages. Target profit is usually based on long-run profit analysis (return on sales). Once the target cost is set for a product, steps (value engineering) are taken to set target costs for each component of the product.

Target cost is, thus, not an actual cost; it is rather a pre-determined cost used as standard based on market forces. It helps a company to direct its all-out efforts to keep the actual cost commensurate with the target cost.

1.8 Advantages of Cost Accounting

Enterprises introducing costing system can derive a number of advantages. Some such advantages are mentioned below :

- i) *Source of Cost Information* : Cost accounting analyses costs in all possible and necessary ways and keeps records of such cost information. Cost information is very much essential to the management for determining costs of products, processes, departments, etc.
- ii) *Determining Selling Prices* : Determining selling prices of products is common to all business enterprises and in majority of the cases it is determined by adding desired profit to the product cost. So cost accounting may be of great help in providing cost information for the purpose.
- iii) *Making Rational Decisions* : The management of an enterprise has to make various decisions like whether to manufacture a component part or buy it from outside supplier, whether to replace a manual method by a mechanical one, whether to discontinue production of a losing product line, etc. In all such situations cost accounting provides relevant information to evaluate the available alternatives, which enables the management to make comparison and take suitable decisions.
- iv) *Minimising Wastages and Losses* : Cost accounting through the control techniques helps in identifying the loopholes, which ultimately leads to minimizing wastages and avoiding losses. For example, it may help to identify the poor quality of materials leading to huge wastage of materials or it may also identify the idle time of labour by proper time keeping and time booking.
- v) *Inter-and Intra-firm Comparisons* : Cost data available from the cost accounting system facilitate both the inter-firm and intra-firm comparisons.

- vi) *Capacity Utilisation* : Cost accounting helps to identify the idle capacities, if any, for reasons like shortage of market demand, non-availability of raw materials or skilled labour, etc.. It helps management in taking steps to make up for the deficiencies in optimum utilization of available resources.
- vii) *Aid to Financial Accounting* : Making data relating to closing stocks readily available at any time, cost accounting facilitates preparation of prompt and more reliable interim final accounts as and when desired.
- viii) *Beneficial to Employees* : Employees get benefited from more reliable wage payment system provided by cost accounting; their representatives can participate in wage negotiations more confidently by being equipped with cost data.
- ix) *Help to Government* : Cost data available from cost accounting system may be very useful to Government in taking various policy decisions regarding import, export, excise duty, taxation, etc.

1.9 Limitations of Cost Accounting

Cost accounting is not an unmixed blessing. Its oft-quoted limitations are :

- i) *Expensive* : Cost accounting involves extra workload, maintaining additional records, etc.; all these lead to additional costs which small enterprises cannot afford.
- ii) *Complexity* : Cost accounting is often criticized as a complex system as it involves complex steps in collection, classification, allocation, apportionment, etc. of costs.
- iii) *Lacking Universal Application* : There are a number of methods and techniques of costing. Suitability of application of each such method and technique depends on the nature of the business enterprise and also of the production process. There is no single method or technique which is universally applicable to all the enterprises. On the other hand, application of wrong method or technique may give misleading result.

1.10 Need for Costing

Despite the demonstrated advantages of having a costing system in an enterprise, cost accounting has not been introduced in most of the enterprises. This apathy is attributed to two major factors : (i) Cost of Costing, and (ii) Assured market.

- i) *Cost of Costing* : It is very often argued that the cost of installation and running a cost accounting system outweighs the benefits that may be derived from it. But this is mostly not acceptable. Because the cost of wastage and inefficiency avoided, reduction in costs of all sorts, etc. arising out of an effective cost accounting system cannot be ignored. However, it needs special mention that application of cost accounting principles in different aspects of an enterprise wherever cost accounting system is introduced, should be guided by proper spirit and sense and not by the letter. For example, it is always wiser to distribute the cost of thread used in a tailoring shop as an indirect cost by a process of averaging which avoids elaborate process and therefore disproportionate costs of identifying it as a direct cost. The former method does not involve any application of cost accounting principle which the latter method does. So, cost of costing may be kept within justifiable limits if it is judiciously applied and then definitely it will not stand on the way of introduction of a costing system.
- ii) *Assured Market* : The other reason for not introducing a cost accounting system may be that most of the business units in India are operating in assured markets i.e., it is so assumed that there is no risk of running the business in losses. But whatsoever assured may be the market of a business that must be a short run phenomenon. Because, as the time passes by every business must have to face competition when reducing the selling price appears to be unavoidable to it. But the decision to lower the selling price rests to a great extent on the cost structure of the product. A complete idea about the cost structure, in turn, necessitates the introduction of a costing system. This is equally true even in case of a monopoly business.

1.11 Installation of a Costing System

Installation of a costing system in an organization requires consideration of the following factors :

- i) *Nature of the organization* : No two organizations may be similar in all respects. Naturally, the demands of different business units for specific features in a costing system to suit their needs are also different. It needs mention that there is also no single costing system which may suit all the business units. So, having identified the particular objectives of the organization for installation of a costing system, an appropriate system of costing should be selected for adoption so as to suit the peculiar nature of the organization.

- ii) *Technical aspects* : All technical aspects of the organization like products being produced, production process involved, nature of raw materials used with the degree of spoilage, etc. are to be studied very carefully for selecting a proper method of costing to be adopted.
- iii) *Maintenance of records* : One of the common objectives of introducing a costing system is cost control. It necessarily involves maintenance of detailed records on costs to be incurred for different functions of production, administration and selling. As maintenance of records involves cost, care should be taken to maintain so much of detailed information as may be necessary for complete cost analysis. For the purpose, different forms to be used by workers, foremen, etc. are to be standardized as far as practicable. For authenticity of the records, every entry in such forms should be countersigned by an authorized person.
- iv) *Timely reporting* : Decisions are based on information. Mere maintenance of records, as stated above, is not enough; it will be effective only when these are communicated to the appropriate person/s for proper analysis and decision-making. So, arrangements should be made to ensure that right information is reported to the right person at right time.
- v) *Accounting aspect* : Costing system can be introduced maintaining separate set of books i.e., in addition to those maintained under financial accounting system. In that case there may be some duplication of accounting activities. To avoid such duplication an integrated system of maintaining books of accounts can be arranged. In the former case (maintaining separate set of books), however, arrangements are to be made for reconciliation between profits determined under two different sets of books.

1.12 Questions

(a) *Long answer type*

1. What do you mean by method and technique of costing? How can you differentiate between the two? What different methods and techniques of costing are available? Explain any one method and one technique of your choice.
2. What are the advantages of introducing a costing system in a manufacturing firm? Is there any limitation of a costing system? As a Cost Accountant of a manufacturing firm what steps would you take to introduce a costing system?

(b) *Short answer type*

3. Distinguish between :
 - (i) Operation Costing and Operating Costing,
 - (ii) Absorption Costing and Marginal Costing,
 - (iii) Farm Costing and Industrial Costing.

4. How is cost information useful for?

- (i) Making decisions,
- (ii) Determining selling price,
- (iii) Controlling costs?

(c) **Objective type**

5. Suggest a suitable method of costing for the following :

- (i) Drugs manufacturing (ii) Hospital (iii) Toy making (iv) Telephone
- (v) Steel (vi) Railways (vii) Collieries (viii) Printing (ix) Cigarettes
- (x) Ship building.

6. State whether the following statements are true or false :

- (i) External reporting is the main function of Financial Accounting.
- (ii) Cost accounting helps only in controlling costs.
- (iii) Basic documents for writing up books under Financial accounts and Cost accounts are the same.
- (iv) Cost accounting helps Financial accounting in valuation of inventories.
- (v) Target cost is not an actual cost.

1.13 Select Readings

Banerjee, B., *Cost Accounting*, World Press Pvt. Ltd.

Prasad, N. K., *Cost Accounting*, Book Syndicate

Wheldon's *Cost Accounting*, ELBS

Hornigren, T., *Cost Accounting—A Managerial Emphasis*, Prentice Hall.

1.14 Hints for Solution (for objective type question)

5. (i) Process (ii) Operating (iii) Batch (iv) Operating (v) Process (vi) Operating
(vii) Single (viii) Job (ix) Unit (x) Contract.

6. (i) True (ii) False (iii) True (iv) True (v) True.