CHAPTER I
INTRODUCTION TO THE RESEARCH TOPIC
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1.1 STRATEGIC COST MANAGEMENT IN SELECTED SMALL SCALE INDUSTRIES:

Book keeping, accounting, management accounting and costing are some of the devices with which small scale industrialists are not much acquainted. Most of the small scale units are owned by technocrats and many of them are first time entrepreneurs. It is generally observed that these technicians are very strong in terms of knowledge of technology appropriate to their businesses. However, they usually feel that financial matters do not play very significant role. When the business is on tiny scale, perhaps most of the figures are on the tip of their tongue. But as the business grows they are very happy to bag the new orders. There is no doubt that marketing has an important role to play in the success of the business, but some attention to costing is obviously essential. In an enthusiasm to bag the new order, lot of concessions are offered and the prices quoted are on “General knowledge”. Ultimately the transaction ends up with very thin margin as payment terms agreed upon are not maintained by the party. It leads to a tragedy of shortage of working capital on the face of so called growing business.

1.1.1 PURPOSE OF STUDY

The key to success is costing and Cost Management. The present study is an attempt to provide direction to small scale industry that Cost Management in general and Strategic Cost Management in particular is an index of business success.

As per the dictionary meaning of the term “Strategy”, it means “carefully worked out plan of action.” The term strategy drawn from military science means essentially a plan of action to win the battle. In
case of business small or large, it amounts to winning the transaction to the advantage of an entrepreneur.

unfortunately, there is a widespread misunderstanding that a small industry can not afford sophisticated costing and financial management techniques. However, a lot of money is spent on buying new technology. Thus an entrepreneur fails to see the difference between “Spending” and “Investing.”

The techniques like ratio analysis or Balance sheet analysis are useful to all – big, medium or small scale industrial units and not only multi-nationals and transnationals.

In this, some case-studies too are included to demonstrate various techniques which are understood and are being used by small scale units in managing their costs with a view to ensure business success.

On the basis of study of theory and practice of cost management, researchers has visualised two major objectives of cost management –

A) Costing as a tool of planning

B) Costing as a tool of control

Most of the small and medium scale organisations are strong in production and reasonably well organised on accounting and finance. However the Cost Management is either absent or inadequate. It is a general misunderstanding amongst owners and managers that independent cost department is a luxury which only large scale organisation can offer. The present study is an effort to clarify the status of Cost Management in small and medium industries. The researcher has identified problems arising out of absence or inadequacy of cost management in small scale enterprises.

The owners and managers are sharp and intelligent. Usually they have good marketing ability and a very high order technical / talent. Ultimately being sound, the business grows as per the expectations of the owner.
Due to globalization and opening of economy quantum, jump in sales is generally experienced by most of the owners and managers. The researchers fully believe that it is the right time for small scale enterprises to gear up the accounting, costing and finance department to face the challenges of growth, both in planning and control. And with this believe, it becomes necessary to conduct an intensive case study of few small scale units.

1.2 OVERVIEW
ACCOUNTING is a part of the information system of any business enterprise. It provides financial information concerning the activities of an enterprise to a diverse group of people such as shareholders, managers, creditors, tax authorities, etc. On the basis of the purpose for which this information is used, accounting is divided into three parts – Financial Accounting, Cost Accounting and Management Accounting.

This overview provides a framework of cost accounting, explaining its basic concepts as cost classifications, costing methods and techniques, elements of cost etc.

Financial Accounting, Cost Accounting and Management Accounting

Financial Accounting
Financial accounting is mainly concerned with recording business transactions in the books of account for the purpose of presenting final accounts to management, shareholders, tax authorities etc. It is defined as\(^1\) “The art of recording, classifying and summarising in a significant manner and in terms of money, transactions and events, which are in part at least, of a financial character and interpreting the results thereof.”

\(^1\) American Institute of Certified Public Accountants (AICPA)
The information supplied by financial accounting is summarised in the following three statements at the end of a period, generally one year.

a) Profit and Loss Account showing the net profit or loss during the period
b) Balance Sheet showing the financial position of the firm at a point of time
c) Cash Flow Statement showing the inflows and outflows of cash arising from the business activities during the period covered by the statement.

Thus, the objective of financial accounting is to present a true and fair view of a company’s income, financial position and funds at regular intervals of one year.

**Cost Accounting**

Compared with financial accounting, cost accounting is a relatively recent development. Modern cost accounting was developed only during the nineteenth century. ²

In fact, Cost Accounting started as a branch of Financial Accounting, but it is now regarded as an accounting system in its own right. The importance that cost accounting has acquired in this modern age is because of the increasing complexity of modern industry.

Financial information supplied by financial accounting in the form of financial statements stated above, always relate to past activity. On the other hand, Cost Accounting is not restricted just to the past but it is concerned with the ascertainment of past, present and expected future costs of products manufactured or services supplied. Detailed meaning and definition of cost accounting is given later in this chapter. In brief, Cost Accounting is a system of determining the costs of products or services.

² A text book of Cost and Management Accounting by M.N. Arora
Cost Accounting has primarily developed to meet the needs of management. Profit and Loss Account and Balance Sheet are presented to the management by the financial accountant. But modern management needs much more detailed information than those supplied by these financial statements. Cost Accounting provides detailed cost information to various levels of management for efficient performances of their functions. The information supplied by Cost Accounting acts as (a) management tool for decision – making to optimise the utilisation of scarce resources (b) ultimately add to the profitability of business by controlling expenditure under various heads.

MANAGEMENT ACCOUNTING

Management accounting is the modern concept of accounts acting as a tool of management. It is concerned with all such accounting information useful to management. In other words, the term “Management Accounting” is applied to the provision of accounting information for management activities like decision making, planning, controlling etc. Thus, any form of accounting which enables a business to be conducted more efficiently is regarded as management accounting. The Chartered Institute of Management Accountants (CIMA), London has defined management accounting as “The presentation of accounting information in such a way as to assist management in the creation of policy and in the day-to-day operations of an undertaking.”

Cost accounting and management accounting are intimately related areas, so much so that Horngren, a renowned author on the subject, has gone to the extent of saying, “Modern cost accounting is often called management accounting. Why? Because cost accountants look

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3 A text book of Cost and Management Accounting by M.N. Arora  
4 A text book of Cost and Management Accounting by M.N. Arora  
5 A text book of Cost and Management Accounting by M.N. Arora
at their organisation through a manager’s eyes.” Thus managerial aspects of cost accounting are inseparable from management accounting.

**Some Limitations of Financial Accounting**

Cost accounting has emerged mainly because of certain limitations of financial accounting. Financial accounting is so limited and inadequate in regard to the information which it can supply to management that businessmen have been eager to adopt supplementary accounting systems like cost accounting. The limitations of financial accounting can be summarised as follow:

1. **Shows only overall performance** - Financial accounting provides information about profit, loss, cost, etc., of the collective activities of the business as a whole. It does not furnish costing data classified in terms of departments, products, processes, sales territories etc.

2. **Historical in nature** - Financial accounting is historical as the data is summarised only at the end of the accounting period. There is no system of computing day-to-day cost and also computing predetermined costs.

3. **No performance appraisal** - In financial accounting, there is no system of developing norms and standards to appraise the efficiency in the use of materials, labour and other costs by comparing the actual performance with what should have been accomplished during a given period of time.

4. **No material control system** - Generally there is no proper system of control over materials which may result in losses in the form of obsolescence, deterioration, excessive scrap, misappropriation etc.

5. **No labour cost control** - In financial accounting there is no system of recording loss of labour time, i.e., idle time. Labour cost is not recorded by jobs, processes or departments, and as such it offers
no system of incentives that may be easily used to compensate workers for their above-standard performances.

6. **No proper classification of costs** - In financial accounting, costs are not classified into direct and indirect, fixed and variable and controllable and uncontrollable costs. These classifications have utility of their own.

7. **No analysis of losses** - Financial accounting does not fully analyze the losses due to idle time, idle plant capacity, inefficient labour, sub-standard materials etc. Thus, exact causes of the losses are not known.

8. **Inadequate information for price fixation** - Costs are not available as an aid in determining prices of products, services or production orders.

9. **No cost comparison** - Comparison is the foundation of modern management control. But financial accounting does not provide data for comparison of costs of different periods, different jobs or departments, sales territories, etc.

10. **Fails to supply useful data to management** - Financial accounting fails to supply useful data to management for taking various decisions like replacement of labour by machines, introduction of new products, make or buy, selection of the most profitable product mix etc.

Thus, due to these limitations, more improvements in the system were thought off *

1.3 MEANING OF COSTING AND COST ACCOUNTING

The Chartered Institute of Management Accountants (CIMA), London has defined costing as, “the techniques and processes of ascertaining costs.” Wheldon\(^6\) has defined costing as, “the proper allocation of expenditure and involves the collection of costs for every order, job,

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* Recently, MIS i.e. Management Information System has developed as a new branch of study.

\(^6\) Wheldon – Famous Author and Expert in Cost Accounting
process, service or unit.” Thus, costing simply means cost finding by any process or technique. It consists of principles and rules which are used for determining:

a) The cost of manufacturing a product, e.g., motor car, furniture, chemical, steel, paper etc., and

b) The cost of providing a service, e.g. electricity, transport, education etc.

The terms ‘Costing’ and ‘Cost accounting’ are often used interchangeably. Cost accounting is a formal system of accounting for costs in the books of account by means of which costs of products and services are ascertained and controlled. According to L.C. Cropper, 7 “cost accounting means a specialized application of the general principles of accounting in order to ascertain the cost of producing and marketing and unit of manufacture or of carrying out any particular job or contract.” An authoritative definition of cost accounting has been given by CIMA, London as follows: “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 ascertainment of profitability of activities carried out or planned.”

Costing and Cost Accounting – Difference Though the terms, ‘costing’ and ‘cost accounting’ are interchangeably used yet there is a difference between the two. Costing is simply determining costs by using any method like arithmetic process, memorandum statements, etc. Cost accounting, on the other hand, denotes the formal accounting mechanism by means of which costs are ascertained by recording them in the books of account. In simple words, costing

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7 Renowned Expert in Costing
means finding out the cost of products or services by any technique or method, while cost accounting means costing using the double entry system.

COST ACCOUNTANCY is a very wide term. It means and includes the principles, conventions, techniques and systems which are employed in a business to plan and control the utilisation of its resources. It is defined by CIMA, London as, “The application of costing and cost accounting principles, methods and techniques to the science, art and practices of cost control and the ascertainment of profitability. It includes the presentation of information derived there from for the purposes of managerial decision making.”

Cost Accountancy is thus the science, art and practice of a cost accountant. It is a science in the sense that it is a body of systematic knowledge which a cost accountant should possess for the proper discharge of his duties and responsibilities. It is an art as it requires the ability and skill on the part of a cost accountant in applying the principles of cost accountancy to various managerial problems like price fixation, cost control, etc. Practice refers to constant efforts on the part of cost accountant in the field of cost accountancy. Theoretical knowledge alone would not enable a cost accountant to deal with the various intricacies involved. He should, thus, have sufficient practical training, and exposure to real life costing dilemmas.

Cost accountancy includes costing, cost accounting, cost control and cost audit.

Applications of Cost Accounting
Cost accounting is generally considered as being applicable only to manufacturing concerns. This is not so. Its applications are in fact much wider. All types of activities, manufacturing and non-manufacturing, in which monetary value is involved, should consider the uses of cost accounting. Wholesale and retail businesses, banking
and insurance companies, railways, airways, shipping and road transport companies, hotels, hospitals, schools, colleges, universities, farming and cinema houses, all may employ cost accounting techniques to operate efficiently. It is only a matter of recognition by the management of the applicability of these costing concepts and techniques in their own fields of endeavour.

1.4 OBJECTIVES AND FUNCTIONS OF COST ACCOUNTING

The main objectives of cost accounting are as follows:

1. **Ascertainment of cost.** This is the primary objective of cost accounting. In cost accounting, cost of each unit of production, job, process or department etc. is ascertained. Not only actual costs incurred are ascertained but costs are also predetermined for various purposes. For cost ascertainment, various methods and techniques are employed under different situations.

2. **Cost control and cost reduction.** Cost accounting aims at improving profitability by controlling and reducing costs. For this purpose, various specialised techniques like standard costing, budgetary control, inventory control, value analysis, etc., are used. This objective of cost control and cost reduction is becoming increasingly important in the present scenario because of growing competition in the business world.

3. **Guide to business policy.** Cost accounting aims at serving the needs of the management in conducting the business with utmost efficiency. Cost data provide guidelines for various managerial decisions like make or buy, selling below cost, utilization of idle plant capacity, introduction of a new product, etc.

4. **Determination of selling price.** Cost accounting provides cost information on the basis of which selling prices of products or services may be fixed. In periods of depression, cost accounting
guides in deciding the extent to which the selling prices may be reduced to meet the situation.

In order to realise these objectives, the data provided by cost accounting may have to be re-classified, re-organised and supplemented by other relevant business data from outside the formal cost accounting system.

**Meaning of Cost**

The term ‘Cost’ does not have a definite meaning and its scope is extremely broad and general. It is, therefore, not easy to define or explain this term without leaving any doubt concerning its meaning.

Cost accountants, economists and others develop the concept of cost according to their needs because one complete description of ‘cost’ to suit all situations is not possible.

According to the Oxford Dictionary, cost means “The price paid for something.” Some other definitions of cost are given below:

1. Cost is “The amount of expenditure (actual or notional) incurred or attributable to a given thing.” (CIMA, London)
2. “A cost is the value of economic resources used as a result of producing or doing the things costed.” (WM Harper)
3. “Cost is a measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering of services.” ICWA of India.

In fact, in order to assign a definite meaning to the term ‘cost’, it should be used with a modifier or an adjective according to the specific purpose for its use. For example, direct cost, fixed cost, variable cost, controllable cost, material cost, selling cost, prime cost, marginal cost, differential cost, standard cost, estimated cost, actual cost, joint cost, conversion cost, etc. have specific meanings.
Cost vs. Expense and Loss

Often the terms ‘Cost’ and ‘Expense’ are used interchangeably. But cost should be distinguished from expense and loss. Expense is defined as “An expired cost resulting from a production usage of an asset.” It is that cost which has been applied against revenue of a particular accounting period in accordance with the principle of matching costs to revenue. In other words, an expense is that portion of the revenue earning potential of an asset which has been consumed in the generation of revenue. Unexpired or unconsumed part of the cost is recorded as an asset in the balance sheet. Such an unexpired cost is converted into an expense when it expires while helping to earn the revenue. For example, when a plant is purchased, depreciation on plant (expired cost) is charged to profit and loss account as an expense and cost of plant remaining after providing depreciation (unexpired cost) is shown as an asset in the balance sheet. Every year, depreciation on plant representing expense is debited to profit and loss account and depreciated value representing unexpired cost is shown in the balance sheet. Pre-paid insurance is also an example of unexpired cost which is shown in the balance sheet as an asset.
Loss - Loss is defined as “Reduction in a firm’s equity, other than from withdrawals of capital for which no compensating value has been received.” A loss is an expired cost resulting from a decline in the service potential of an asset that generated no benefit to the firm. Obsolescence or destruction of stock by fire are examples of loss.

1.5 COST CENTRE: CONCEPT AND APPLICATION

For the purpose of ascertaining cost, the whole organisation is divided into small parts or sections. Each small section is treated as a cost centre of which cost is ascertained. A cost centre is defined by CIMA, London as “A location, person, or item of equipment (or group of these) for which costs may be ascertained and used for the purpose of control.” Thus, a cost centre refers to a section of the business to which costs can be charged. It made a location (a department a sales area), an item of equipment (a machine, a delivery van), a person (a salesman, a machine operator) or a group of these (two automatic machines operated by one workman). The main purpose of “cost centre” is the control of cost.

Cost centres are primarily of two types:

a) Personal cost centre - which consists of a person or a group of persons.

b) Impersonal cost centre – which consists of a location or an item of equipment or group of these.

From a functional point of view, cost centres may be of the following two types:

a) Production cost centre. These are those cost centres where actual production work takes place. Examples are weaving department in a textile mill, melting shop in a steel mill, cane crushing shop in a sugar mill, etc.

b) Service cost centre. These are those cost centres which are ancillary to and render services to production cost centres.
Examples of service cost centres are power house, tool room, stores department, repair shop, canteen, etc.

A cost accountant sets up cost centres to enable him to ascertain the costs he needs to know. A cost centre is charged with all the costs that relate to it, e.g., if a cost centre is a machine, it will be charged with the costs of power, light, depreciation and its share of rent etc. The purpose of ascertaining the cost of a cost centre is cost control. The person in charge of a cost centre is held responsible for the control of cost of that centre.

**Cost Unit**

It has been seen above that cost centres help in ascertaining costs by location, equipment or person. A cost unit goes a step further by breaking up the cost into smaller sub-divisions, thereby helping in ascertaining the cost of saleable products or services.

A cost unit is defined by CIMA, London as a “Unit of product or service in relation to which costs are ascertained.” For example, in a sugar mill, the cost per tonne of sugars may be ascertained, in a textile mill the cost per metre of cloth may be ascertained. Thus ‘a tonne’ of sugar and ‘a metre’ of cloth are cost units. In short, cost unit is unit of measurement of cost.

All sorts of cost units are adopted, the criterion for adoption being the applicability of a particular cost unit to the circumstances under consideration. Broadly, cost units may be of two types as explained below:

a) **Units of production**, e.g., a ream of paper, a tonne of steel, a metre of cable etc. or

b) **Units of service**, e.g., passenger miles, cinema seats, consulting hours etc.
The cost units and cost centres should be those which are natural to the business and which are readily understood and accepted by all concerned.

**Cost Object**

Cost object may be defined as “Anything for which a separate measurement of cost may be desired.” A cost accountant may want to know the cost of a particular ‘thing’ and such a ‘thing’ is called a cost object. A cost object may be a product, service, activity or process etc. Examples of cost objects are given below:

<table>
<thead>
<tr>
<th>Cost Object</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Car, Shaving razor</td>
</tr>
<tr>
<td>Service</td>
<td>Telephone hotline, taxi service</td>
</tr>
<tr>
<td>Process</td>
<td>Melting process in a steel mill, weaving process in a textile mill</td>
</tr>
<tr>
<td>Activity</td>
<td>Developing a website on the Internet, Purchasing raw material</td>
</tr>
</tbody>
</table>

### 1.6 METHODS OF COSTING

The methods or types of costing refer to the techniques and processes employed in the ascertainment of costs. Several methods have been designed to suit the needs of different industries. The method of costing to be applied in a particular concern depends upon the type and nature of manufacturing activity. Basically, there are two methods of costing:

1. **Job costing or job order costing**, and
2. **Process costing**

All other methods are variations of either job costing or process costing. The various methods given here are in outline only and detailed discussion of each of these is given in later chapters.

1. **Job order costing** - This method applies where work is undertaken to customers’ special requirements. Cost unit in job order costing
is taken to be a job or work order for which costs are separately collected and computed. A job, big or small, comprises a specific quantity of a product or services to be provided as per customer’s specification. Industries where this method is used include printing repair shops, interior decoration, painting, etc.

2. **Contract costing or terminal costing** - This is a variation of job costing and therefore, principles of job costing apply to this method. The difference between job and contract is that job is small and contract is big. It is well said that a contract is a big job and a job is a small contract. The cost unit here is a ‘contract’ which is of a long duration and may continue over more than a financial year. Contract costing is most suited to the construction of buildings, dams, bridges and roads, shipbuilding etc.

3. **Batch costing** - Like contract costing, this is also a variation of job costing. In this method, the cost of a batch or group of identical products is ascertained and therefore each batch of products is a cost unit for which costs are ascertained. This method is used in companies engaged in the production of readymade garments, toys, shoes, tyres and tubes, component parts etc.

4. **Process costing** - As distinct from job costing, this method is used in mass production industries manufacturing standardised products in continuous processes of manufacturing. Costs are accumulated for each process or department. Here raw material has to pass through a number of processes in a particular sequence to completion stage. In order to arrive at cost per unit, the total cost of process is divided by the number of units produced. The finished product of one process is passed on to the next process as raw material. Textile mills, chemical works, sugar mills, refineries, soap manufacturing etc., may be cited as examples of industries which employ this method.
5. **Operation costing** - This is nothing but a refinement and a more detailed application of process costing. A process may consist of a number of operations and operation costing involves cost ascertainment for each operation instead of a process. This method provides minute analysis of costs and ensures greater accuracy and better control.

6. **Single, output or unit costing** - This method of cost ascertainment is used when production is uniform and consists of a single or two or three varieties of the same product. Where the product is produced in different grades, costs are ascertained grade-wise. As the units of output are identical, the cost per unit is found by dividing the total cost by the number of units produced. This method is applied in mines, quarries, brick kilns, steel production, flour mills, etc.

7. **Operating or service costing** - This method should not be confused with operation costing. It is used in undertaking which provide services instead of manufacturing products. For example, transport undertakings (road transport, railways, airlines, shipping companies), electricity companies, hotels, hospitals, cinemas, etc., use this method. The cost units are passenger-kilometer or tonne-kilometre, kilowatts hour, a room per day in a hotel, a seat per show in a cinema hall, etc. This method is a variation of process costing.

8. **Multiple or composite costing** - It is an application of more than one method of cost ascertainment with respect to the same product. This method is used in industries where a number of components are separately manufactured and then assembled into a final product. For example, in a television set manufacturing company, manufacture of different component parts may require different production methods and thus different methods of costing may have to be used. Assembly of these components into
final product requires yet another method of costing. Other examples of industries which make use of this method are air-conditioners, refrigerators, scooters, cars, locomotives, etc. One can understood that above analysis is useful for large industries as well as Small and Medium Enterprises.

1.7 TECHNIQUES OF COSTING

It is the type of industry that determines which of the eight methods of costing discussed above will be used in a particular enterprise. However, in addition to theses methods, there are certain techniques of costing which are not alternatives to the methods discussed above. These techniques may be used for special purpose of control and policy in any business irrespective of the method of costing being used there. These techniques are briefly explained below.

1. **Standard costing** - This is a very valuable technique of controlling cost. In this technique, standard cost is pre-determined as target of performance, and actual performance is measured against the standard. The difference between standard and actual costs are analysed to know the reasons for the difference occuring so that corrective actions may be taken.

2. **Budgetary control** - Closely allied to standard costing is the technique of budgetary control. A budget is an expression of a firm’s business plan in financial form and budgetary control is a technique applied to the control of total expenditure on materials, wages and overheads by comparing actual performances with planned performance. Thus, in addition to its use in planning, the budget is also used for control and co-ordination of business operations.
3. **Marginal costing** - In this technique, separation of costs into fixed and variable (marginal) is of special interest and importance. This is so because marginal costing regards only variable costs as the cost of the products. Fixed cost is treated as period cost and no attempt is made to allocate or apportion this cost to individual cost centres or cost units. It is transferred to costing profit and loss account of the period. This technique is used to study the effect on profit of changes in volume or type of output.

4. **Total adsorption costing** - It is a traditional method of costing whereby total costs (fixed and variable) are charged to products. This is in complete contrast to marginal costing where only variable costs are charged to products. Although until recently,
this was the only technique employed by cost accountants now a days it is considered to have only a limited application.

5. Uniform costing - This is not a separate technique or method of costing like standard costing or process costing. It simply denotes a situation in which a number of firms adopt a uniform set of costing principles. It has been defined by CIMA, London as “The use by several undertakings of the same costing principles and / or practices.” This helps to compare the performances of one firm with that of other firms and thus, to derive the benefit of anyone’s better experience and performances.

Costing Methods and Technique are Tools
Methods and techniques of costing described above should be regarded as tools of a cost accountant and it should not be construed that a particular method or technique is superior to any other. Just as skilled workman uses different tools for different tasks, similarly, a cost accountant should be able to use these methods and techniques appropriately either individually or in combination. For example, Standard costing may be combined with process costing to give ‘Standard process costing’, or Standard costing may be combined with marginal costing as well as process costing to give ‘Standard marginal process costing’. Although this may appear confusing, yet if principles involved in each method or technique are clearly understood, there should not be any difficulty in making the best use of these methods and techniques.

1.8 CLASSIFICATIONS OF COST
Classification is the process of grouping costs according to their common characteristics. It is a systematic placement of like items together according to their common features.
There are various ways of classifying costs as given below. Each classification serves a different purpose.

1. **Classification into Direct and Indirect Costs**

Costs are classified into direct costs and indirect costs on the basis of their identifiability with cost units or jobs or processes or cost centres.

**Direct costs** - These are those costs which are incurred for and conveniently identified with a particular cost unit, process or department. Cost of raw materials used and wages of a machine operator are common examples of direct costs. To be specific, cost of steel used in manufacturing a machine can be conveniently known. It is, therefore, a direct cost. Similarly, wages paid to a tailor in a readymade garments company for stitching a pair of trousers is a direct cost because it can be easily identified in the cost of that garment.

**Indirect costs** - These are general costs and are incurred for the benefit of a number of cost units, processes or departments. These costs cannot be conveniently identified with a particular cost unit or cost centre. Depreciation of machinery, insurance, lighting, power, rent, managerial salaries, materials used in repairs, etc., are common examples of indirect costs. For example, depreciation of machine for stitching a pair of trousers cannot be known and thus it is an indirect cost.

Costs are not traced or identified directly with a cost unit for one of the following three reasons:

1. It is impossible to do so; e.g., rent of building, etc.
2. It is not convenient or feasible to do so; e.g., nails used in furniture, sewing thread etc.
3. Management chooses not to do so; i.e. many companies classify certain items of cost as indirect because it is customary in the industry to do so; e.g., carriage inward may be treated as an
indirect expense (Alternatively, it may be treated as a part of the cost of materials purchased).

The terms ‘direct’ and ‘indirect’ should be used in relation to the object of costing. An item of cost may be a direct cost in one case and the same may be indirect in another case. It is the nature of business and the cost unit chosen that will determine whether a particular cost is direct or indirect. For example, depreciation of asphalt mixing plant used by a road building contractor at site is a direct cost, whereas depreciation of plant used in a factory is an indirect cost. It is because in the factory, plant would probably benefit more than one cost unit and it may not be convenient to allocate depreciation to various cost units with any degree of accuracy.

This classification is important from the point of view of accurate ascertained of cost. Direct costs of a product can be conveniently determined while the indirect costs have to be arbitrarily apportioned to various cost units. For example, in readymade garments, the cost of cloth and wages of tailor are accurately ascertained without any difficulty and are thus direct costs. But the rent of factory building, managerial salaries, etc., which are indirect costs, have to be apportioned to various cost units on some arbitrary basis and cannot be accurately ascertained. (Small entrepreneurs can develop better understanding about these concepts so that “Costing” does not become a heavy burden!)

2. **Classification into Fixed and Variable Costs**

Costs behave differently when level of production rises or falls. Certain costs change in sympathy with production level while other costs remain unchanged. As such on the basis of behaviour or variability, costs are classified into fixed, variable and semi-variable.

i) **Fixed costs.** These costs remain constant in ‘total’ amount over a specific range of activity for a specified period of time, i.e., these
do not increase or decrease when the volume of production changes. For examples, building rent and managerial salaries remain constant and do not change with change in output level and thus are fixed costs. But fixed cost 'Per unit' decreases when volume of production increases and vice versa, fixed cost per unit increase when volume of production decreases. For example, if total fixed cost is Rs. 20,000 per month, per unit fixed cost will be as follows:

<table>
<thead>
<tr>
<th>No. of units produced</th>
<th>Total fixed cost (Rs.)</th>
<th>Fixed cost per unit (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>2</td>
<td>20,000</td>
<td>10,000</td>
</tr>
<tr>
<td>20</td>
<td>20,000</td>
<td>1,000</td>
</tr>
<tr>
<td>200</td>
<td>20,000</td>
<td>100</td>
</tr>
<tr>
<td>2,000</td>
<td>20,000</td>
<td>10</td>
</tr>
</tbody>
</table>

The line representing fixed cost per unit will not touch X-axis because the fixed cost per unit cannot be zero.

Relevent range – Fixed cost remains fixed only in relation to a given range of output and for a given time span. If the output is to be increased beyond the range, the fixed cost will also increase. Relevent range refers to the band of activity or volume in which specific relationship between the level of activity and the fixed cost in question is valid.
The characteristics of fixed cost are:
a) fixed total amount within a relevant range of output;
b) increase or decrease in per unit fixed cost when quantity of production changes;
c) apportioned to departments on some arbitrary basis;
d) such cost can be controlled mostly by top level management.

ii) Variable costs - These costs tend to vary in direct proportion to the volume of output. In other words, when volume of output increases, total variable cost also increases, and vice versa, when volume of output decreases, total variable cost also decreases, but the variable cost per unit remains fixed. It is shown in the below figure.

Thus, in general, variable costs show the following characteristics:
a) variability of the total amount in direct proportion to the volume of output;
b) fixed amount per unit in the face of changing volume;
c) easy and reasonably accurate allocation and apportionment to departments;
d) such costs can be controlled by functional managers.

![Fig 1.4](image-url)
iii) **Semi-variable or semi-fixed (mixed costs)** - These costs include both a fixed and a variable component, i.e. these are partly fixed and partly variable. A semi-variable cost often has a fixed element below which it will not fall at any level of output. The variable element in semi-variable costs changes either at a constant rate or in lumps. For example, introduction of an additional shift in the factory will require additional supervisors and certain costs will increase by steps. In the case of a telephone connection, there is a minimum rent and beyond a specified number of calls, the charges vary according to the number of calls made. In fact, there is no definite pattern of behaviour of semi-variable costs. This is shown in figure

![Fig. 1.5 Behaviour of semi-variable cost.](image)

3. **Classification into Committed and Discretionary Costs**

It is explained above that costs may be classified into fixed and variable. Fixed costs are further classified into committed costs and discretionary (or programmed) costs. This classification is based on
the degree to which a firm is locked into an asset or service that is generating the fixed cost.

**Committed Costs** - These are those costs that are incurred in maintaining physical facilities and managerial set up. Such costs are committed in the sense that once the decision to incur them has been made, they are unavoidable and invariant in the short run. For example, salary of the managing director may represent a committed cost if, by policy, the managing director is not to be relieved unless the firm is liquidated. Similarly, depreciation of plant and equipment is committed because these facilities cannot be easily changed in the short run.

**Discretionary costs** - These are those costs which can be avoided by management decisions. Such costs are not permanent. Advertising, research and development cost and salaries of low level managers are examples of discretionary costs because these costs may be avoided or reduced in the short run, if so desired by the management.

This classification into committed and discretionary costs is important from the point of view of cost control and decision making.

4. **Classification into Product Costs and Period Costs**

**Product costs** - There are those costs which are necessary for production and which will not be incurred if there is no production. These consist of direct materials, direct labour and some of the factory overheads. Product costs are ‘adsorbed by’ or ‘attached to’ the units produced. These are called inventoriable costs because these are included in the cost of product as work-in-progress, finished goods or cost of sales.

**Period costs** - These are those costs which are not necessary for production and are incurred even if there is no production. These are written off as expenses in the period in which these are incurred. Such costs are incurred for a time period and are charged to Profit and Loss
Account of the period. Showroom rent, salary of company executives, travel expenses, etc., are examples of period costs. These costs are not inventoried, i.e., these are not included in the value of stocks. Administration and selling expenses are generally treated as period costs.

Classification into product and period cost is important from the point of view of profit determination. This is so because product cost is carried forward to the next accounting period as part of the unsold finished stock, whereas period cost is written off in the accounting period in which it is incurred.

5. Classification into Controllable and Non-controllable Costs

From the point of view of controllability, costs are classified into controllable costs and non-controllable costs.

Controllable costs - These are the costs which may be directly regulated at a given level of management authority. Variable costs are generally controllable by department heads. For example, cost of raw material may be controlled by purchasing in larger quantities.

Non-controllable costs - These are those costs which cannot be influenced by the action of a specified member of an enterprise. For example, it is very difficult to control costs like factory rent, managerial salaries, etc.
Two important points should be noted regarding this classification. First, controllable costs cannot be distinguished from non-controllable costs without specifying the level and scope of management authority. In other words, a cost which is uncontrollable at one level of management may be controllable at another level of management. For example, a departmental manager may have no control over the number of supervisors employed in his department, but this decision may have to be taken by the production manager. Thus, supervision cost will be non-controllable at the departmental manager’s level, but it will be controllable at the level of production manager. Secondly, all costs are controllable, in the long run at some appropriate management level.

It is misconception that variable costs are controllable and fixed costs are non-controllable. However, variable costs are more prone to control than fixed costs.

6. Classification into Historical Costs and Pre-determined costs

On the basis of time of computation, costs are classified into historical costs and pre-determined costs.

**Historical costs** - These are the costs which are ascertained after these have been incurred. Historical costs are thus, nothing but actual costs. These costs are not available until after the completion of the manufacturing operations.

**Pre-determined costs** - These are future costs which are ascertained in advance of production on the basis of a specification of all the factors affecting cost. These costs are extensively used for the purpose of planning and control.

7. Classification into Normal and Abnormal Costs

Normal cost may be defined as a cost which is normally incurred on expected lines at a given level of output. This cost is a part of cost of production. Abnormal cost is that which is not normally incurred at a
given level of output. Such cost is over and above the normal cost and is not treated as a part of the cost of production. It is charged to costing Profit and Loss Account.

**Special Costs for Management Decision-making**

There are certain costs which are specially computed for use by the management for the purpose of decision -making. These costs may not be recorded in the books of account.

**Relevant Costs and Irrelevant Costs**

**Relevant Cost** - Not all costs are relevant for specific decision. A relevant cost is a cost whose magnitude will be affected by a decision being made. In decision – making, management should consider only future costs and revenues that will differ under each alternative. Management is concerned only with those things it can affect. Management cannot change the cost of plant and machinery purchased in 1995. It can change future costs by its current decisions. Hence, relevant costs are future costs that will differ depending on the actions of the management. For each decision, the management must decide which costs are relevant. For example, in pricing a competitive bid, only differential costs are relevant. In measuring firm’s ability to survive short run adversity, only liabilities and future out of pocket costs are relevant.

Whether a cost is relevant or not depends upon the circumstances. In one case, a cost may be relevant but in another case the same cost may not be relevant. It is thus not possible to prepare a list of relevant costs to be used in all types of decisions.

**Irrelevant costs** - These are those costs that will not be affected by a decision. To take an example from day-to-day life, one may have to decide about making a journey by own car or by a public transport bus. In this decision, insurance cost of car is irrelevant because it will not change, whatever alternative is chosen. However, cost of petrol
and other operating costs of car will differ under the two alternatives and thus, are relevant for this decision.

**Sunk Costs**

A sunk cost is an expenditure made in the past that cannot be changed and over which management no longer has control. These costs are not relevant for decision making about the future. Thus, the book value of an asset currently being used is not relevant in making the decision to replace it. Similarly, the cost of land purchased in 1992 is not relevant in deciding whether to sell the land or hold it. What is relevant is how much cash could be realised in future by selling it. Despite the fact that sunk costs, which are historical costs, are irrelevant for making decisions. They are frequently analysed in detail before decisions about future courses of action are made. For example, historical costs may affect future tax payments which will differ depending on the course of action selected by management. Moreover, an analysis of historical costs may provide information about how future costs will differ under alternative courses of action. One should understand the difference between sunk costs and irrelevant costs. Not all irrelevant costs are sunk costs but all sunk costs are irrelevant. To take an example, in choosing from the two alternative methods of production, if direct material cost is the same under the two alternatives, it is an irrelevant cost. But direct material cost is not a sunk cost because it will be incurred in future and is a future cost. In the opinion of Horngren, a well known authority on the subject, sunk cost has the same meaning as the past cost and all past costs are irrelevant.

**Differential (or Incremental) Costs**

This cost may be regarded as the difference in total cost resulting from a contemplated change. In other words, differential cost is the increase or decrease in total cost that results from an alternative course of
action. It is ascertained by subtracting the cost of one alternative from the cost of another alternative. The alternative choice may arise because of change in method of production, in sales volume, change in product mix, make or buy decisions, take or refuse decision, etc. For differential cost analysis, we need to know the incremental revenues (the change in revenue) and incremental cost (the change in cost) arising from the decision.

**Marginal Cost**
Marginal cost is the additional cost of producing one additional unit. Marginal cost is the same thing as variable cost. Marginal costing (or variable costing) is a technique of charging only variable costs to products. Inventory is also valued at variable cost only. Fixed cost is treated as period cost and written off in Profit and Loss Account of the period. Marginal costing is also a very important analytical and decision making tool in the hands of management. It helps in decisions like make or buy, pricing of products, selection of sales mix, etc.

**Imputed Costs**
These are hypothetical costs which are specially computed outside the accounting system for the purpose of decision – making. Interest on capital invested is a common type of imputed cost. As interest on capital is usually not included in cost, it is considered necessary to take it into account when deciding about the alternative capital investment projects. The failure to consider interest cost may result in an erroneous decisions. For example, project A requires a capital investment of Rs. 50,000 and project B Rs. 40,000. Both the projects are expected to yield Rs. 10,000 as additional profit. Obviously, these two projects are not equally profitable since project B requires less investment and thus, it should be preferred. Similarly, rental value of building owned by a firm is also an imputed cost.
Opportunity Cost

Opportunity cost is the sacrifice involved in accepting an alternative under consideration. In other words, it is a cost that measures the benefit that is lost or sacrificed when the choice of one course of action requires that other alternative course of action be given up. For example, a company has deposited Rs. 1 lakhs in bank at 10% p.a. interest. Now, it is considering a proposal to invest this amount in debentures where the yield is 17% p.a. If the company decides to invest in debentures, it will have to forego bank interest of Rs. 10,000 p.a., which is the opportunity cost.

Opportunity cost is a pure decision making cost. It is an imputed cost that does not require cash outlay and it is not entered in the accounting books.

Replacement Cost

This is the cost at which there could be purchased an asset identical to that which is being replaced. In simple words, replacement cost is the current market cost of replacing an asset. When the management considers the replacement of an asset, it has to keep in mind its replacement cost and not the cost at which it was purchased earlier. For example, a machinery purchased in 1990 at Rs. 10,000 is discarded in 1998 and a new machinery of the same type is purchased for Rs. 15,000. So the replacement cost of the machinery is Rs. 15,000.

Out-of-pocket Cost (Explicit and Implicit Cost)

There are certain costs which require cash payment to be made (such a wages, rent) whereas many costs do not require cash outlay (such as depreciation). Out-of-pocket costs, also known as explicit costs, are those costs that involve cash outlays or require the utilisation of current resources. Examples of these costs are wages, material cost, insurance, power cost, etc. Out-of-pocket cost may be either fixed (manager’s salary) or variable (raw materials and direct wages).
Depreciation on plant and machinery is an implicit cost because it does not involve any immediate cash outlay and therefore is not an out-of-pocket cost. Out-of-pocket cost is frequently used as an aid in make or buy decisions, price fixation during depression and many other decisions.

**Future Cost**
No decision can change what has already happened. The past is history and decisions made now can affect only what will happen in the future. Thus, the only relevant costs for decision making are predetermined or future costs. But it is the historical costs which generally provide a basis for computing future costs. However, changing relationships in the future are also given due consideration while estimating future costs.

**Conversion Cost**
This term is used to denote the sum of direct labour and factory overhead costs in the production of a product. In other words, conversion cost is the factory cost minus direct material cost. It is the total cost of ‘converting’ a raw material into finished product. Appropriate use of this cost can be made in certain managerial decisions.

- Direct Material
- **Prime Cost**
  - Direct Labour
  - **Conversion cost**
  - Factory Overhead

It should be noted that labour cost is a part of prime cost as well as conversion cost.
1.9 COMPONENTS OF TOTAL COST -

Elements of cost may be grouped as follows

i) **Prime Cost** = Direct material + Direct labour + Direct expenses

ii) **Works Cost or Factory Cost** = Prime cost + Factory overhead

iii) **Cost of Production** = Works cost + Administration overhead

iv) **Total Cost or Cost of Sales** = Cost of production + Selling and distribution overhead

Cost Sheet (Cost Statement)

It is a statement which is prepared periodically to provide detailed cost of a cost centre or cost unit. A cost sheet not only shows the total cost but also the various components of the total cost. Period covered by a cost sheet may be a year, a month or a week, etc.

1.10 ADVANTAGES OF COST ACCOUNTING

The deficiencies of financial accounting may be re-stated as the advantages of cost accounting because the latter has emerged to overcome the limitations of the former. However, the extent of the advantages obtained will depend upon the efficiency with which the
cost system is installed and also the extent to which the management is prepared to accept the system.

The principal advantages of cost accounting are as follows:

**Advantages to Management**

1. **Reveals profitable and unprofitable activities.** A system of cost accounting reveals profitable and unprofitable activities. On this information, management may take steps to reduce or eliminate wastages and inefficiencies occurring in any form such as idle time, under-utilisation of plant capacity, spoilage of materials, etc.

2. **Helps in cost control.** Cost accounting helps in controlling costs with special techniques like standard costing and budgetary control.

3. **Helps in decision making.** It supplies suitable cost data and other related information for managerial decision making such as introduction of a new product line, replacement of old machinery with an automatic plant, make or buy, etc.

4. **Guides in fixing selling prices.** Cost is one of the most important factors to be considered while fixing prices. A system of cost accounting guides the management in the fixation of selling prices, particularly during depression period when prices may have to be fixed below cost.

5. **Helps in inventory control.** Perpetual inventory system, which is an integral part of cost accounting, helps in the preparation of interim profit and loss account. Other inventory control techniques like ABC analysis, level setting, etc., are also used in cost accounting.

6. **Aids in formulating policies.** Costing provides information that enables the management to formulate production and pricing policies and preparing estimates of contracts and tenders.
7. **Helps in cost reduction.** It helps in the introduction of a cost reduction programme and finding out new and improved ways to reduce costs.

8. **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 accountings system can easily work out the cost of idle capacity so that the management may take immediate steps to remedy the position.

9. **Checks the accuracy of financial accounts.** Cost accounting provides a reliable check on the accuracy of financial accounts with the help of reconciliation between two at the end of the accounting period.

10. **Prevents frauds and manipulation.** Cost audit system, which is a part of cost accountancy, helps in preventing manipulation and frauds and thus reliable cost data can be furnished to the management and others.

Considering all these advantages, Small and Medium Enterprise Entrepreneurs should develop their own “Manuals” of costs which are more useful to them.

**Advantages to Workers**
Workers are benefited by introduction of incentive plans which is an integral part of a cost system. This results not only in higher productivity but also higher earnings for them.

**Advantages to Society**
An efficient cost system is bound to lower the cost of production, the benefit of which is passed on to the public at large in the form of lower prices of products or services.
Advantages to Government Agencies and Others

A cost system produces ready figures for use by government, wage tribunals, chambers of commerce and industry trade unions, etc., for use in problems like price fixing, wage level fixation, settlement of industrial disputes, policy matters, etc.

1.11 LIMITATIONS OR OBJECTIONS AGAINST COST ACCOUNTING

Despite the fact that the development of cost accounting is one of the most significant steps to improve performance, certain objections are raised against its introduction. These are as follow:

1. **It is unnecessary.** It is argued that maintenance of cost records is not necessary and involves duplication of work. It is based on the premise that a good number of concerns are functioning prosperously without any system of costing. This may be true, but in the present world of competition, to conduct a business with utmost efficiency, the management needs detailed cost information for correct decision making. Only a cost accounting system can serve this need of the management and thus help in the efficient conduct of a business.

2. **It is expensive.** It is pointed out that installation of a costing system is quite expensive which only large concerns can afford. It is also argued that installation of the system will involve additional expenditure which will lead to a diminution of profits. In this respect, it may be said that a costing system should be treated as an investment and the benefits derived from the system must exceed the amount spent on it. It should not prove a burden on the finances of the company. For an economical operation of the system, the maintenance of the records should be kept to the minimum taking into account the need and use of each record.
3. **It is inapplicable.** Another argument sometimes put forward is that modern methods of costing are not applicable to many types of industry. This plea is hardly tenable, given the complexities of operating any enterprise today. The fault lies in an attempt to introduce a readymade costing system in an industry. A costing system must be specially designed to meet the needs of a business. Only then will the system work successfully and achieve the objectives for which it was introduced. In fact, applications of costing are very wide. All types of activities, manufacturing and non-manufacturing, should consider the use of cost accounting.

4. **It is a failure.** The failure of a costing system in some concerns is quoted as an argument against its introduction in other undertakings. This is a very fallacious argument. If a system does not produce the desired results, it is wrong to jump to the conclusion that the system is at fault. The reasons for its failure should be probed. Often it is discovered that employees were opposed to the introduction of a costing system because they might have looked with suspicion at the introduction of any method not known to them or to which they were not accustomed. Thus, to make the system a success, the utility of the system should be explained to the management and cooperation of the employees should be sought by convincing them that the system is for betterment of all.

All the above (four) objections are only ‘academic’ in nature. SMEs must build their understanding about costing.

1.12 **ESSENTIALS OF A GOOD COST ACCOUNTING SYSTEM**

The essential principles of a good system of cost accounting are as follows:
1. **Suitability.** The method of costing adopted, i.e., job or process costing, should be suitable to the industry and serve the objectives of installing the system.

2. **Specially designed system.** A readymade costing system cannot be suitable for every business. The cost accounting system should be tailormade according to the requirements of a business.

3. **Support of executives.** If a costing system is to be successful, it must be fully supported by executives of various departments and everyone should participate in it.

4. **Cost of the system.** The cost of installing and operating the system should be justified by the results produced.

5. **Clearly defined cost centres.** In order to derive maximum benefits from a costing system, well defined cost centres and responsibility centres should be identified within the organisation.

6. **Controllable costs.** Controllable and non-controllable costs of each responsibility centre should be separately shown.

7. **Integration with financial accounts.** There should be cooperation and coordination between cost accounting and financial accounting departments. In order to avoid duplication of accounts, cost and financial accounts may be integrated.

8. **Continuous education.** Well trained and educated staff should be employed to operate the system. In order to educate the costing staff, written manuals and meetings etc. should be arranged on a continuous basis.

9. **Prompt and accurate reports.** The cost accounting department should prepare accurate reports and promptly submit the same to appropriate level of management so that action may be taken without delay.

10. **Avoid unnecessary details.** Resources should not be wasted on collecting and compiling cost data that is not required. Only useful cost information should be compiled and used whenever required.
1.13 COST AUDIT

Audit is described as the verification of accounts so as to ascertain their accuracy. It is checking of the accounts of a business with a view to find out the correctness of the entries recorded in the books of account, truthfulness of transactions and the results of the business.

Cost audit is the specific application of auditing principles and procedures in the field of cost accounting. It has been defined by C.I.M.A. London as “The verification of cost accounts and a check on the adherence to the cost accounting plan.” An analysis of this definition shows that cost audit performs two basic functions. The first function is to verify that cost accounts have been properly maintained and compiled; and second function is to check their adherence to cost accounting plan. There is also a third function of cost audit which is to detect errors and to prevent frauds and possible misappropriations. This third function is in fact the function of all types of audit and not of cost audit alone.

Cost audit lays stress on propriety of expenditure and efficiency of performance. Cost audit is an audit of efficiency and of minute details of expenditure. It is mainly a preventive measure and a guide for management policy and decision making in addition to being a barometer of performance.

Financial audit is compulsory in the case of all joint stock companies. Cost audit, on the other hand, is not compulsory in all companies. Sec. 233-B of the companies Act, 1956, has made cost audit compulsory in certain specified companies to be notified by the Central Government from time to time.

There are many items of cost which are of purely financial nature. These items are not included in cost while preparing a cost sheet.