Revised Edition

COST ACCOUNTING

TEXT AND PROBLEMS

M.C. SHUKLA
T.S. GREWAL
Dr. M.P. GUPTA

S. CHAND

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For B.Com., BBA, M.Com. and MBA

Also for CA/CS/ICWA–Inter, CFA and other Professional Courses

M.C. SHUKLA
B.A., B.Com. (Birmingham), Bar-at-Law
Retd. Professor of Commerce and Director of Correspondence Courses University of Delhi

T.S. GREWAL
M.A. (Com.)
Former Director of Studies, Coaching Board, Institute of Chartered Accountants of India, New Delhi

Dr. M.P. GUPTA
M.Com., Ph.D.
Director, Jagran College, Kanpur
Ex. Head, Deptt. of Commerce, VSSD (PG) College, Kanpur
Ex. Dean, Faculty of Commerce, CSJM Kanpur University, Visiting Faculty
Northern India Regional Council of the Institute of Chartered Accountants of India, Kanpur and Kanpur Chapter of the Institute of Company Secretaries of India

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PREFACE TO THE TWELFTH EDITION

It gives me great pleasure and satisfaction to present 12th thoroughly revised edition of **Cost Accounting Text and Problems**. The latest syllabus of various professional courses like CS, ICWA, MBA, BBA, CFA and Unified Syllabus of UGC for B.Com. and M.Com. have been taken into consideration. A separate edition for CA course is available which is also published by S.Chand & Company Ltd.

A large number of new problems set in latest examinations have been included. Almost all chapters have been revised, updated and re-arranged. In this edition, a large number of objective questions, short-answer numerical and short-answer theoretical questions have been added in each chapter.

A separate chapter on **'*Joint Product and By Product*'** has been tailored out from the chapter of Process Costing.

Chapter on ***Activity Based Costing (ABC)*** based on new concept on costing of overheads and a topic on ***Just In Time (JIT)*** have been included. Now the book contains about ***545 most representative and examination oriented problems*** and illustrations.

I am deeply grateful to Management and Editorial Team of S. Chand & Company Ltd. for bringing out this book in time.

Any criticism and constructive suggestion in the direction of making the book a better teaching and studying manual will be gratefully acknowledged by the author.

'*Mansarover*' **Dr. M.P. GUPTA**
117-K-82 Sarvodaya Nagar,
Kanpur 208025.
9415538080
E-mail. mpgupta 1943@gmail.com

PREFACE TO THE FIRST EDITION

The objective of the textbook is to present a basic treatment of main principles of *Cost Accounting* with an Indian background. Therefore no doubt, some very good books on the subject are available but they are either advanced or deal with a background unfamiliar to Indian students.

The present book aims to meet in full measure the requirements of students preparing for the various Commerce degree and post-degree examinations of the Indian Universities, and the candidates for the Chartered Accountants Examination, as well as the examinations of the Institute of Cost and Works Accountants. Apart from supplying the text matter in a logical and convenient manner, the book is intended to stimulate students to read more advanced works.

The standard set for the book is complete clarity for the beginners and such simplicity of exposition will make the text practically the best one. It is to this purpose that a maximum range of examples and illustrations form part of the text material. To further add to the value of the book, suitable text questions have been appended to each chapter, list of which have been selected from the various examination papers. Following the text material there are 25 specially selected questions and problems with their answers and solutions. An exhaustive index has been added to the contents of the book.

Our thanks are due to many writers of standard works on *Cost Accounting*, more particularly to Biggs and Sarkar, from whom we have drawn materials and inspiration in preparing this small book. Publishers and Printers of this book deserve our thanks for co-operation.

Any criticism, favourable or unfavourable, and any constructive suggestion in the direction of making the book a better teaching instrument will be gratefully received by us.

M.C. SHUKLA
T.S. GREWAL

CONTENTS

Chapter 1

Introduction and Elements of Cost

Costing has been defined as classifying, recording and appropriate allocation of expenditure for the determination of the costs of products or services, and for the presentation of suitably arranged data for the purposes of control and guidance of the management. It includes ascertainment of the cost of every order, job, contract, process, service or such unit of output as may be appropriate. It deals with the cost of production, selling and distribution. Costing means an analysis of information to enable management to know the cost of producing and selling, that is, the total cost of various products and services and also to know how the total cost is constituted.

For example, it is not sufficient to say that the cost of producing a pair of shoes is ₹. 275. The management must know how much out of that sum is due to material, labour and other expenses which have to be incurred to keep a factory going. Only with proper analysis of various elements of cost, this objective can be achieved. Such an analysis is the purpose of cost accounting.

Costing is a branch of accounting which has developed because of limitations of Financial Accounts. It is developed because of the needs of management which financial account could not meet.

Requirement of Management and Limitations of Financial Accounting

(*i*) **Measurement of performance and efficiency:** These days it is necessary that a business concern should conduct its activities with utmost efficiency or with the minimum possible wastages and losses. This may not be necessary sometimes when there is such a great shortage of goods that the consumers have to buy whatever is offered to them and at a price which the sellers demand. This, however, is not the usual case and, normally, the customers have a wide choice. The choice will naturally be dictated by the value which the product or the service gives to the consumer and by the price he has to pay. The concerns which do not try to continuously improve their product and service and bring down costs and prices will sooner or later find themselves out of business because of the simple fact that there are other concerns which are constantly on the look out for a greater share in the existing market. Managements of business houses, therefore, need something by which they can constantly measure their performance objectively.

Financial accounts cannot serve this purpose at all. One may certainly say that if a concern has earned profits over a period of time, it is on the whole efficient. The existence of profits or losses in a particular year or in a particular period cannot be taken as a sure sign of efficiency or inefficiency. During the Second World War and after it, when there was a sellers' market, almost every business house made huge profit. During a depression it is difficult to avoid a loss and, therefore, if a profit and loss account shows loss, it cannot be taken to be a sign of inefficiency. It is only in normal times that the profit and loss account serves as an indicator of overall efficiency or inefficiency.

Even so, the indications given by the profit and loss account are generally inadequate. It is at best like the thermometer which only indicates the temperature of the human body; sure judgement cannot be made only on the basis of such a temperature and a good physician will have a number of other checks made in order to see what the patient is suffering from. In a similar way, in addition to the results shown by the profit and loss account, there has to be good deal of other information before management can decide about the state of health of the undertaking. It must be remembered that the objective of management is not to achieve overall efficiency, but maximum efficiency—efficiency at every point. To take a simple example, suppose the profit and loss account shows a profit of ₹ 2 lakhs. It is possible that this is a result of profit of ₹. 1,50,000 from article A, a profit of ₹. 1,00,000 from article B and a loss of ₹. 50,000 from article C. Surely the management would be well advised to ascertain the profit or loss of each product separately. This is not all; the management must also try to see that in the making of each unit of product there is no unnecessary wastage or loss as regards materials, labour and other expenses. Information regarding wastages and losses is very difficult to get from financial accounts and it is only Cost Accounts which make such information available to management.

Also, it is not possible to know the exact reasons why there are profits or losses. Financial accounts do not provide the necessary analysis. Particularly, the cost of idle facilities or idle plant cannot be gauged. Also, whether an expenditure or loss is avoidable or unavoidable is difficult to ascertain from financial accounts. It is due to all these limitations that there is need of detailed analysis of the expenses incurred by a concern so that the management can put its finger on the various weak spots and know why there are losses and profits. Having known the exact reason, it becomes easy to take steps which will remove losses and consolidate gains. This is the chief reason why Costing has developed as a distinct branch of accounting.

(*ii*) **Pricing:** Good deal of detailed information is needed to fix prices of products or services. Prices cannot be fixed on the basis of information given by financial accounts simply because these accounts deal with total expenditure and not with expenditure incurred on each product or unit of service. A certain garment factory made a variety of men's and children's clothes. Certain lines, because of their low price, became very popular and their sales grew to 75 per cent of total turnover, the remainder being made up of high-priced quality articles. The management decided that profits could be increased by discontinuing the quality production and concentrating on the popular lines. This was done and a grave loss resulted. An analysis showed that all the profit had been made on the quality goods and this had been sufficient to conceal the loss on the quantity output. By this time the quality market had been lost to a competitor and the firm concerned fell into serious difficulties. An adequate departmentalised cost system would have prevented the management from, in the first instance, selling at a loss in the popular market, and, in the second instance, discontinuing the only profitable section of the output. Another firm, in the electric goods trade, sold an article at a wholesale price of ₹. 55. Several thousand units were sold before it was found that the cost of production amounted to ₹. 57.

Financial accounts cannot indicate the exact remunerative price which may be quoted in periods of difficulties. During depression, prices may have to be even below the total cost but certainly at a level which will not increase the loss which would be incurred if production is stopped. Financial accounts can throw no light on this problem of what prices should be charged in such periods.

(*iii*) **Control:** To maximise profits or minimise costs, it is necessary to set up standards, which are really very careful and somewhat idealistic estimates, and then to compare actual costs against the standards. The reasons for the discrepancy are ascertained and then the possible action to rectify the situation is taken. Such action is not possible on the basis of information provided by financial accounts.

(*iv*) **Forecasting:** Firms these days believe in planning and for this purpose budgets have to be provided. Budgets are prepared on the basis of forecasts of future costs and revenue. In this also, financial accounts are totally inadequate in providing the necessary information. Of course, cost accounting also has to take the help of other disciplines, like Economics and Statistics, for providing reliable forecasts but it is much more capable of helping management in this regard than financial accounting.

(*v*) **Day-to-day decisions:** Besides fixing prices to meet short-term situations, various other decisions have to be taken continually, such as:

(*a*) Whether a component should be made in the factory itself or purchased from outside;

(*b*) in case a factor of production is in short supply, for which product should it be used;

(*c*) when to step or begin operations in case of seasonal industries;

(*d*) whether an old machine should be replaced by a new one; and

(*e*) whether an order at a concessional price should be accepted; etc.

Cost accounting is able to provide the necessary information for such decisions but financial accounting is unable to do so.

Following is an example which points out how cost accounting may reveal such facts and information which cannot be obtained from financial accounting. In this example a profit and loss account is shown which reveals that the firm has earned ₹. 17000 as net profit, but when separate costs of different products are calculated under cost accounting system, it has been shown that product A is sold at loss and there was need to take prompt action to overcome the problems relating to production and sale of product A.

Trading and Profit & Loss Account

	₹.		₹.
Materials	15,000.00	Sales	85,000.00
Wages	23,000.00		
Chargeable Exps.	2,000.00		
Factory Exps.	10,000.00		
Gross Profit	35,000.00		
	85,000.00		85,000.00
Administrative Exps.	8,000.00	By Gross Profit	35,000.00
Selling & Distribution Exps.	10,000.00		
Net Profit (20% of Sales)	17,000.00		
	35,000.00		35,000.00

Cost Statement

Particulars	*Total* ₹.	*Products* *A* ₹.	*B* ₹.	*C* ₹.
Materials	15,000.00	7,000.00	5,000.00	3,000.00
Wages	23,000.00	9,000.00	7,000.00	7,000.00
Chargeable Exps.	2,000.00	—	1,200.00	800.00
Factory Exps.	10,000.00	4,000.00	3,000.00	3,000.00
Administrative Exps.	8,000.00	3,000.00	2,500.00	2,500.00
Selling & Distribution Exps.	10,000.00	8,000.00	1,000.00	1,000.00
Total Cost	68,000.00	31,000.00	19,700.00	17,300.00
Sales	85,000.00	28,000.00	26,000.00	31,000.00
Profit/Loss	17,000.00	(–)3,000.00	6,300.00	13,700.00
Percentage of Profit on Sales	20%	(Loss) –10.7%	24.33%	44.19%

It is revealed that product A is sold at 10.7 per cent loss while product B and C are producing 24.23 per cent and 44.19 per cent profits. Due to product A, the total profit percentage has come down to 20 per cent. This information is of utmost use to the management. The firm may decide to discontinue product A after making an enquiry of the cost structure of this product. The firm may find out whether or not some more efficient manufacturing, selling and distribution system is possible in this respect. The firm may also review its pricing policy and should also investigate as to whether the selling price of product A may be increased to attain a profitable level.

Thus, in the words of *L.W. Hawkins* 'the ordinary trading account is a locked store house of most valuable information to which cost system is the key'.

To put it differently and to *sum up*, financial accounting has the following significant *limitations*:

(1) It cannot measure effectively the efficiency of various operations;

(2) It cannot provide sufficiently detailed information to enable the firm to fix prices either in the short period or in the long term;

(3) It does not provide the necessary tools and information for controlling costs effectively;

(4) Budgeting and forecasting, so essential for modern day managements, will suffer badly if reliance is placed only on financial accounting; and

(5) Managements have to make numerous decisions for which financial accounting is unable to provide the necessary data and information. These all decisions relate to choice of one out of the various alternatives, such as make or buy, according priority to products, etc.

This void left by financial accounting has been quite well filled by Cost Accounting. One can say that the need for cost accounting arose because of the requirement of management to know the cost of various activities in various circumstances. This need is felt by managements everywhere—not merely in private business houses seeking to make a project. A hospital, for example, may not want to earn a profit but it will certainly try to utilise its funds in the best possible manner. That means it must ascertain the cost of each activity that it undertakes and then weigh the cost against the expected benefit. Any institution using resources that are scarce will need cost accounting since only then can the limited resources be put to the best use and for the greatest benefit.

Costing has a vital role to play in almost any activity which involves expenditure of money, whether it is a business house or a charitable concern or whether it is a Government department. Costing can throw a good deal of light on unnecessary losses and wastages. In public enterprises, that is to say, enterprises owned by the Government, normally the profit motive is absent and, therefore, whatever indication the usual profit and loss account gives in case of private enterprise, is unavailable in case of public enterprises. The efficiency of public enterprise, therefore, can be maintained only by a systematic collection of costing data and its study. Costing, therefore, has even a more important role to play in public enterprise than in private enterprise.

Definitions

To understand the meaning of Cost Accounting, there is need of explaining certain related terms also.

(1) **Cost:** Cost has been defined in the terminology given by the *Chartered Institute of Management Accountants* (*CIMA*) as 'the amount of expenditure incurred or attributed on a given thing'. More simply, it can be defined as that which is given or sacrified to obtain something. Thus the cost of an article is its purchase or manufacturing price, *i.e.* it would consist of its direct material cost, direct labour cost, direct and indirect expenses allocated or apportioned to it.

(2) **Cost Accountancy:** The *Chartered Institute of Management Accountants in England* (CIMA) has defined Cost Accountancy as `the application of costing and Cost Accounting

principles, methods and techniques to the science, art and practice of cost and the ascertainment of profitability. It includes the presentation of information derived therefrom for the purpose of management decision-making'. Cost Accountancy is, thus the science, art and the practice of cost accountant.

Cost Accountancy is *science* because it is the systematic knowledge which a cost accountant should possess so that he may properly discharge his responsibility and functions. Cost Accountancy is also an *art* because it includes the ability and skill with which a cost accountant becomes able to apply his knowledge to the various problems like ascertainment of costs, control of costs, ascertainment of profitability, replacement of plants and technology, marginal costing, etc. Cost Accountancy is also practising the practice of a cost accountant. It includes his continuous efforts in presentation of information for the purpose of managerial decision-making.

Cost Accountancy consists of several subjects, such as Cost Accounting, Costing, Cost Control and Cost Audit.

(3) **Cost Accounting:** The *Chartered Institute of Management Accountants* in England (*CIMA*) has defined Cost Accounting as, 'the process of accounting for cost from the point at which expenditure is incurred or committed to establishment of its ultimate relationship with cost centres and cost units. In its widest usage, it embraces the preparations of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried or planned'. It is a formal mechanism by means of which costs of products or services are ascertained and controlled. It is concerned with accumulation, classification, analysis and interpretation of cost data for three major purposes (*a*) ascertainment of cost, (*b*) operational planning and control, and (*c*) decision-making.

(4) **Costing:** Costing has been defined by the Institute as, 'the technique and process of ascertaining cost'. *Wheldon* defines costing as follows:

"Costing is the classifying, recording, and appropriate allocation of expenditure for the determination of the costs of products or services; and for the presentation of suitably arranged data for the purposes of control and guidance of the management. It includes the ascertainment of the cost of every order, job, contract, process, service or unit as may be appropriate. It deals with the cost of production, selling and distribution."

Thus, costing means such an analysis of information as to enable management to know the cost of producing and selling, that is the total cost of various products and services and also to know how the total cost is constituted.

(5) **Cost Control:** Cost control has been defined as 'the guidance and regulation by executive action of costs of operating on undertaking'. It is primary job of a cost-accountant, besides ascertainment of cost, to furnish different types of statements and information as to enable the management to control the cost of operating their business. Cost control is exercised through a number of techniques such as Standard Costing and Budgetory Control. *Standard Costing* is a system which seeks to control the cost of each unit through determining beforehand what should be the cost and then its comparison with actual cost and also analysis of variances together with their causes. *Budgetory Control* means laying down in monetary and quantitative terms what exactly has to be done and how exactly it has to be done over a coming period and then to ensure that actual results do not diverge from the planned course more than necessary.

(6) **Cost Audit:** Cost Audit has been defined by the Institute as 'the verification of cost accounts and a check on the adherence to the cost accounting plan. It is an independent expert examination of the cost accounts of different outputs of an undertaking and a verification whether such accounts of the different output, serve the purpose intended.'

OBJECTIVES OF COST ACCOUNTING

The definition given by the ***CIMA*** brings out the vital point that the Cost Accounting has the following objectives:

(*i*) *Ascertainment of cost* and determining the selling price.

(*ii*) *Cost control i.e.* keeping costs under check;

(*iii*) *Ascertaining profitability* and profits earned on each activity including ascertaining causes that lead to a particular figure; and

(*iv*) *Collection and presentation* of such information or statements as are required by management in its task of planning and making decisions. The decisions to be made may be of various types, some examples of which are:

(*a*) fixing prices under normal and special circumstances;
(*b*) determining priorities for products;
(*c*) deciding whether a component will be bought from the market or made within the factory itself; and
(*d*) deciding on the best processes of manufacture etc.

A particular firm may not desire to realise all the aims stated above and may, therefore, design its Cost Accounting system only for a particular purpose. But, in general, Cost Accounting has a wide role to play.

The nature of cost accounting can be summarised as "analysing, recording, standardising, forcasting, comparing, reporting and recommending. It is the business of the cost accountant to fill in turn the role of historian, news agent and prophet. As historian he must be meticulously accurate and sedulously impartial. As news agent he must be up to date, selective and pithy. As prophet he must combine knowledge and experience with foresight and courage".

FUNCTIONS OF COST ACCOUNTING OR COST-ACCOUNTANT

According to *Blocker and Weltemer* 'Cost Accounting is to serve management in the execution of policies and in comparison of actual and estimated results in order that the value of each policy may be appraised and changed to meet the future conditions'.

Following are main functions of cost accounting:

(*i*) To work out cost per unit of the different products manufactured by the organisation;
(*ii*) To provide an accurate analysis of this cost;
(*iii*) To maintain costs to the lowest point consistent with the most efficient operating conditions. It requires the examination of each cost in the light of the service or benefit obtained so that the maximum utilisation of each rupee will be obtained;
(*iv*) To work out the wastage in each process of manufacture and to prepare reports as may be necessary to assist in the control of wastage;
(*v*) To provide necessary data for the fixation of selling price of commodities manufactured;
(*vi*) To compute profits earned on each of the products and to advise management as to how these profits can be improved;
(*vii*) To help management in control of inventory so that there may be minimum locking up of capital in stocks of raw materials, stores, work-in-process and finished goods
(*viii*) To install and implement cost control systems like *Budgetary Control* and *Standard Costing* for the control of expenditure on materials, labour and overheads;
(*ix*) To advise management on future expansion;
(*x*) To advise management on the profitability or otherwise of new lines of products;
(*xi*) To carry out special cost studies and investigations which are invaluable to management in determining policies and formulating plans directed towards profitable operations.

MANAGEMENT ACCOUNTING

Management accounting is a product of necessity for utilising data of Cost Accounting and Financial Accounting for planning, coordination and control rather than for mere record-keeping.

According to *Robert Anthony*, 'Management Accounting is concerned with accounting information which is useful to the management'. The approach is selective in presenting and interpreting accounting data which facilitates the process of decision-making. *J. Batty* signifies this area as a combination of accounting theory and practice on the one hand and special managerial skills on the other. According to him 'Management Accounting is the term used to describe the accounting methods, systems and techniques, which coupled with special knowledge and ability, assists management in its task of maximising profits or minimising losses'. Thus 'Any form of accounting which enables a business to be conducted more efficiently can be regarded as Management Accounting'.

Management Accounting is more concerned with the improvement in the level of managerial competence in taking right decisions. The nature of management accounting is analytical which views every activity or event in wider perspective in analysing the causes and their effects.

The area of Management Accounting is closely related to the principles and preactice of financial accounting on the one hand and the managerial skills on the other hand. The scope includes the following systems of accounting and management (*i*) Financial Planning and Policy (*ii*) Financial Accounting (*iii*) Standard Costing, Budgeting and Budgetary Control (*iv*) Managerial Costing, Profit Planning and Break-even-Analysis (*v*) Capital Budgeting and Project Planning (*vi*) Dividend and Retention Policy Decisions and (*vii*) Performance Appraisal. Such a wide scope of the area involves the use of a number of quantitative and management technique as tools of analysis such as Ratio Analysis, Trend Analysis, Fund-Flow and Cash-Flow Analysis, Comparative and Common size Financial Statements and many other modern techniques of management like Operations Research, Linear Programming and Computer Programming.

Thus **Management Accounting** serves managers by providing information to help them in decision-making, planning and control, while **Cost Accounting** is concerned with the calculation of product costs for use in the financial accounts.

DIFFERNCE BETWEEN COST ACCOUNTING, FINANCIAL ACCOUNTING, MANAGEMENT ACCOUNTING AND FINANCIAL MANAGEMENT

Cost Accounting is a branch of accounting, which has been developed because of the limitations of Financial Accounting from the point of view of management control and internal reporting. Financial accounting performs admirably, the function of portraying a true and fair overall picture of the results of activities carried on by an enterprise during a period and its financial position at the end of the year. Also, on the basis of financial accounting, effective control can be exercised on the property and assets of the enterprise to ensure that they are not misused or misappropriated. To that extent financial accounting helps to assess the overall progress of a concern, its strength and weaknesses by providing the figures relating to several previous years.

Data provided by Cost and Financial Accounting is further used for the management of all processes associated with the efficient acquisition and deployment of short, medium and long term financial resources. Such a process of management is known as *Financial Management*. The objective of Financial Management is to maximise the wealth of shareholders by taking effective investment, financing and dividend decisions. Investment decisions relate to the effective deployment of scarce resources in terms of funds while the financing decisions are concerned with acquiring optimum finance for attaining financial objectives. The last and very important 'Dividend decision' relates to the determination of the amount and frequency of cash which can be paid out of profits to shareholders.

Management Accounting refers to managerial processes and technologies that are focused on adding value to organisations by attaining the effective use of resources, in dynamic and competitive contexts. Hence, Management Accounting is a distinctive form of resource management which facilitates management's 'decision making' by producing information for managers within an organisation.

ADVANTAGES OF COSTING

The following are the important advantages which a concern can derive from Cost Accounting:

1. **Measurement and Improvement of Efficiency:** The chief advantage to be gained is that Cost Accounting will enable a concern to, first of all, measure its efficiency and then to maintain and improve it. This is done by suitable comparisons and analysis of the differences that may be observed. For example, if materials spent upon a pair of shoes in 2001 come to ₹. 100 and for a similar pair of shoe the amount is ₹. 120 in 2002. It is an indication of decline in efficiency. Of course, the increase may only be due to increase in price of materials; it may also be due to greater wastage in use of materials or inefficiency at the time of buying so that unnecessary high prices were paid. Comparisons may also be made with average figures for the whole industry (if such figures are available) and with ideal figures which may have been determined beforehead. In any case it is this sort of comparison which tells management about the going up or coming down of efficiency. The study will certainly indicate the steps to be taken to remove the causes of inefficiency or to consolidate a factor which leads to greater efficiency.

2. **Profitable and Unprofitable Activities:** It will throw light upon those activities which bring profits and those activities which result in losses. This will be done only if the cost of each product or each job is ascertained and compared with the price obtained.

3. **Fixation of Prices:** In many cases a firm is able to fix a price for its products on the basis of the cost of production. In such a case, price cannot be properly fixed if no proper figures of cost are available. In case of big contracts, no quotation can be made unless the cost of completing that contract can be ascertained. If prices are fixed without costing information, it is possible that the price quoted may either be too high, in which case orders cannot be obtained, or it may be too low, in which case an order will result in a loss. It is a mistake on the part of any management to believe that mere increase in sales volume will result in profits; increased sales at prices lower than the cost may well lead the concern to the bankrupt court. Only Cost Accounting will reveal what price will be profitable.

4. **Guide in Reducing Prices:** In certain periods it becomes necessary to reduce the price even below the total cost. This will be so when there is a depression or slump. Costs, properly ascertained, will guide management in this direction.

5. **Information for Proper Planning:** For a proper system of Costing, it is necessary to have detailed information about the facilities available about machine and labour capacity. This helps in proper planning of work so that no section is overworked and no section remains idle.

6. **Control over Materials etc.:** Information about availability of stocks of various materials and stores must be constantly available if there is a good system of Cost Accounting. This helps in two ways. Firstly, production can be planned according to the availability of materials and fresh stocks can be arranged in time when old stocks are exhausted. Secondly, loss due to carelessness or pilferage or any other mischief will be known and, therefore, put down.

7. **Decision Regarding Machine vs. Labour:** Some of the important questions before management can be solved only with the help of information about costs. For example, if there is the problem of replacement of labour by machinery, Cost Accounting will at least guide management in finding out what the cost of production will be if either machinery or labour is used.

8. **Expansion in Production:** Sometimes it is necessary to decide whether production of one product or the other is to be increased. This problem can also be solved only if proper information about costs is available.

9. **Reasons for Losses Detected:** Exact causes of existence of profits or losses will be revealed by a system of Cost Accounting. For example, a concern may suffer not because the cost of production is high or prices are low but because the output is much below the capacity of the concern. It is only Cost Accounting which will reveal this reason for loss. It also helps in distinguishing between expenditure and loss which is necessary and that which is unnecessary, that is to say, between normal and abnormal losses.

10. **Helps in Taking Decisions:** Cost Accounting inculcates the habit of making calculations with pencil and paper before taking a decision. It will certainly check recklessness. Also some of the silly mistakes that sometimes occur can be avoided if there is a good Cost Accounting system. To give an instance, a well-known firm once quoted for supply of mosquito nets to the Government at a very low price. It was only after the order was obtained that the firm found that, by mistake, the price of materials was not included in the quotation.

11. **Check on Accuracy of Financial Accounts:** A good system of Cost Accounting affords an independent and most reliable check on the accuracy of financial accounts. This check operates through reconciliation of profits shown by Cost Accounts and by Financial Accounts.

On the basis of various advantages of Cost Accounting, it can be easily said that '*a good system of costing serves as a means of control over expenditure and helps to secure economy in manufacture*'.

Control over Expenditure

A good system of costing serves as a means of control over expenditure in the following directions:

(*a*) An efficient system of stores and stock accounting is rendered essential and thus wastage may be detected and reduced to a minimum.

(*b*) By adopting the maximum limits for stores, the total capital outlay is controlled and possible financial loss due to overstocking is avoided.

(*c*) The centralisation of purchasing is facilitated by the use of Cost Accounts and the danger of liabilities exceeding the current financial resources is avoided.

(*d*) The maintenance of time and job records for workers discloses the losses incurred from idle time and indicates the directions in which these losses may be minimised.

(*e*) The data made available by Cost Accounting are invaluable for the purpose of comparison, and steps can be taken to reduce the number of unprofitable or more costly operations, processes etc. in favour of those shown to be more efficient or economical.

(*f*) The exact result of all expenditure is brought to the notice of the management by Cost Accounting in a manner which Financial Accounting fail to achieve. As Cost Accounting should always be up to date, expenditure may be controlled thereby as it becomes necessary whereas information from Financial Accounts may be past history before it receives the attention of the management.

Key to Economy

Cost Accounting helps to secure economy in manufacture because they provide such detailed analysis of expenditure that:

(*a*) Wastage of material, labour and time are revealed, and steps may therefore be taken to minimise such losses in the future.

(*b*) A detailed comparison of operations, process etc. is provided and the less efficient thus detected.

(*c*) The relative advantages of remunerating labour on the time, piecework or premium plans may be ascertained.

(*d*) Unprofitable activities are disclosed and steps may be taken to eliminate or reduce them or to change the method of production or incidence of cost.

(*e*) The location of weakness stimulates the new and improved processes.

Thus the main purpose of ascertaining cost is to provide the management with facts to carry on the business in the most efficient manner. Cost Accounts are designed to provide the management with information which if acted upon, will enable efficiency to be enhanced, waste to be eliminated, a proper control to be imposed over stocks and stores and economic prices and tenders to be fixed. Cost Accounts will also reveal profitable and unprofitable activities and will indicate in what directions production may be usually expanded or contracted.

Service Rendered by Cost Accounting to the Management

Cost Accounting provides cost information to the management. Cost data are compiled for use by operating supervisors, reports are prepared and issued periodically to the appropriate managers and operating executives in an analytical form so that they may manage most effectively and economically the activities immediately under their control. The cost department's daily handling of detailed operated figures reveal the strength and weaknesses of the current methods of production, distribution and administration. Their suggestions are an aid in controlling day-to-day activities, effecting reduction in cost and establishing broad policies relating to improvement and enlargement of plant. Information furnished to sales management includes actual or estimated costs of new products for pricing, suggestion for selling those products which are most profitable and advantageous and choosing the most effective and least costly selling methods and channels of distribution. The cost department must cooperate with other departments of the business in offering timely information and helpful suggestions so that their performance may be improved. Prompt and correct cost information fosters cooperation between department and promotes coordination of their efforts.

Service Rendered to Employees

Cost Accounting strengthens a business and enables it to earn more profits through the adoption of improved techniques. Although higher profit goes directly to the benefit of the proprietors, it is indirectly reflected in higher emolument and security of employment of the employees. Moreover, by devising suitable incentive schemes, it gives all classes of workers including supervisors, clerks departmental heads and major executives opportunity to improve their emoluments while enabling the organisation to earn higher profits. It can also be emphasised that cost figures revealing the true state of affairs of the business may be used in settling industrial disputes.

Cost Accounting and Creditors

Cost reports reveal satisfactory trends and future prospects of a business. Banks, lending companies, share and debenture-holders and suppliers of goods granting credit terms can judge the soundness of a company from its cost statistics.

Interest of Public in Cost Accounting

When Cost accounting lowers the cost of production of commodities by eliminating losses due to improper planning and scheduling, wasteful usage of materials, idle time and inadequate management of employees, improper control of overhead costs, lack of good relation between employees and employers, it is in effect rendering a service to the community by providing goods at lower cost and improving the general standard of living.

OBJECTIONS TO COST ACCOUNTING

Two of the principal objections against the installation of costing system in a factory are that (*a*) it is *unnecessary* and (*b*) it is *expensive*.

(*a*) ***It is unnecessary.*** In this age of competition in the business world, a manufacturer must know the exact cost not only of each article made but also of each element of cost, so that his selling price may be reasonably fixed, neither too high price which may reduce business nor to low price which may lead to loss. The main purpose of ascertaining costs is to provide the management with facts and information to carry on the business in the most efficient manner, and to achieve advantages of a costing system:

(*i*) it enables the business to ascertain the exact cost of each specific unit of output and the extent to which each element of expenditure contributes to such cost.

(*ii*) It provides a reliable basis upon which tenders and estimates may be prepared.

(*iii*) It facilitates the detection and prevention of waste, leakage and inefficiency.

(*iv*) It provides invaluable data for purposes of comparison.

(*v*) It provides an independent and collateral check upon the accuracy of financial accounts.

(*vi*) It enables unprofitable activities of the business disclosed, so that steps may be taken to eliminate or reduce them.

In view of these advantages, the objection that a costing system is unnecessary is not quite correct.

(*b*) ***It is expensive.*** When it is desired to introduce a costing system in a manufacturing business, that business must be studied in detail with special reference to its manufacturing technique and the advice of its technical staff must be obtained in framing the system of costing. The system to be adopted to a particular case must be adopted to the requirement and circumstances of that case. A simple costing system will in many case suffice, and unnecessary elaboration must always be avoided Elaborate costing records should only be kept when their maintenance is warranted, since a system of Cost Accounting must be profitable investment and produce a benefit commensurate with the expenditure incurred upon it. It must be simple and it must be elastic and capable of adaptation to changing conditions. Therefore, it cannot be said that a costing system is expensive.

A number of advantages have been detailed earlier and a good management should be able to benefit greatly from the installation of Cost Accounting, but the character of management is of vital importance here. Really speaking, the cost accountant can only prepare information highlighting the points which should be studied, but action is something which is beyond the cost accountant and is a function of management itself. Unless, therefore, the management is, firstly, willing to study the information compiled and presented by the cost accountant, secondly, capable of doing that and, thirdly, willing to take action on the basis of that information, installation of a Cost Accounting system will prove of no avail.

INSTALLATION OF A COST ACCOUNTING SYSTEM

The very first thing to remember about a Cost Accounting system is that it should always be treated as an investment. This means that if, somehow, it is believed that no advantage will be gained by installing such a system, then it should not be installed at all. Cost Accounting as a matter of fashion is entirely useless and may even be harmful. This has a number of implications.

One is that a concern must itself design the system to be adopted. Books can give only general principles and it is no use copying a system followed by another concern. This is because the personality and problems of a business house are quite different from those of another. It is necessary, therefore, to adopt an available system for the peculiar requirements of the undertaking.

Another implication of this is also that *the amount to be spent upon the installation of the system should be strictly proportionate to the benefits likely to be obtained.* This means that if sufficient information about costs can be obtained from financial books then a separate Cost Accounting department is not necessary. For example, in case of a colliery all the necessary information should be available from the financial books because all expenditure relates to production of coal only. The total expenditure will be required to be analysed in greater details but separate Cost Accounting books are not necessary. But, normally, in case of a jobbing factory or a concern which produces a number of products, an elaborate system of Cost Accounting is necessary.

Another implication of this principle is that in *Cost Accounting reasonable accuracy is sufficient.* For example, it does not really matter much whether the cost of a house is ₹. 1,95,119.85 or whether it is put down as ₹. 1,95,120.00. Of course, much greater accuracy will be required, say, in case of a cotton textile mill where a saving of even one-tenth of a paisa per metre will result