DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

AURANGABAD

DEPARTMENT OF COMMERCE

RESEARCH PROJECT

ON

RECONCEPTUALISATION OF THE COMPETITIVE ADVANTAGE OF PROCESS COSTING AS A FUNDAMENTAL METHOD OF COST ACCOUNTING: AN OVERVIEW

SUBMITTED BY

MR. ALI KHAZAAL GABBAR

UNDER THE GUIDANCE
OF

DR. M. A. LOKHANDE
Head
Department of Commerce
Dr. Babasaheb Ambedkar Marathwada University
Aurangabad, Maharashtra, India

SUBMITTED

TO

THE DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY AURANGABAD FOR THE AWARD OF THE DEGREE OF

MASTER OF COMMERCE

2014

ACKNOWLEDGEMENTS

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

I am highly indebted to my Guide **Dr. M. A. Lokhande**, Head of the Department of Commerce, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, India, for his guidance and constant supervision as well as for providing necessary information regarding the project and also for his support in completing the project.

I would also like to acknowledge with much appreciation the crucial role of the staff of the Department of Commerce and the Library staff of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, who helped in research work.

In my daily work I have been blessed with a friendly and cheerful group of fellow students. It is my pleasure to thank all my friends who, have also contributed in the success of this research work.

Also I'm thankful to my teacher Alaa Abdul Hussein, without him I'm not to be here

Lastly but not the least, I thank almighty, my parents, brother, sisters and relatives for their constant encouragement without which this assignment would not be possible.

I am making this project not only for marks but to also increase my knowledge. Thanks again to all who helped me.

Date:

Place: Aurangabad Mr. Ali Khazaal Gabbar

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY
AURANGABAD
DEPARTMENT OF COMMERCE

हे ज्ञानियां पवित्रता। ज्ञानीचि आथि॥

CERTIFICATE

This is to certify that **Mr. Ali Khazaal Gabbar** has worked on the research project titled **"Reconceptualisation of the Competitive Advantage of Process Costing as a Fundamental Method of Cost Accounting: An Overview"** under my guidance and supervision. This research project is the candidate's original work and has not been submitted to any other University for the conferment of any Degree or Diploma or Fellowship.

GUIDE
DR. M. A. LOKHANDE
Head
Department of Commerce
Dr. Babasaheb Ambedkar
Marathwada University
Aurangabad-431004 (MS)

CONTENTS

Chapter 1

INTRODUCTION

Chapter 2

COST ACCOUNTING: A BIRD'S EYE VIEW

Chapter 3

RELATIONSHIP BETWEEN FINANCIAL ACCOUNTING AND COST ACCOUNTING

Chapter 4

PROCESS COSTING AS A FORM OF COST ACCOUNTING

Chapter 5

CONCLUSIONS AND SUGGESTIONS

Chapter 1

INTRODUCTION

Chapter 1

INTRODUCTION

1.1 STATEMENT OF THE RESEARCH PROBLEM:

Cost Accounting is a branch of accounting which has been developed due to limitations of financial accounting.[1] Cost accounting, initially, was merely considered to be a technique for ascertainment of cost of products or services on the basis of historical data.[2] In course of time due to competitive nature of the market, it was realized that ascertainment of cost is not as important as controlling costs.[3] Hence, cost accounting started to be considered more as a technique for cost control as compared to cost ascertainment.

Due to technological development in all fields, now cost reduction has not only come within the ambit of cost accounting but also it has been considered essential in helping business to ascertain the cost of production/services offered by the organization. It also provides valuable information for taking various decisions and also for cost control and cost reduction.[4] Cost accounting is thus concerned with recording, classifying and summarizing costs for determination of costs of products or services,

---

[1] Jain, Khandelwal Pareek, *Cost Accounting*, Ajmera Book Depot, Jaipur, 2002, p.4. *See also*, *Cost Accounting: Core Course*, University of Calicut, School of Distance Education.

[2] Agrawal, Shah, Mendiratta, Agarwal Sharma Tailor, *Cost and Management Accounting*, New Delhi: Malik and Co., 1999, p.13.

[3] *Ibid*.

[4] Oswal Maheshwari Modi, *Cost Accounting*, RBD, Jaipur, 2005, p.6.

planning, controlling and reducing such costs and furnishing of information to management for decision making.[5]

As compared to the financial accounting, the focus of cost accounting is different. In the modern days of cut throat competition, any business organization has to pay attention towards their cost of production. Computation of cost on scientific basis and thereafter cost control and cost reduction has become of paramount importance. Hence it has become essential to study through this research the basic principles and concepts of cost accounting applied in various organizations and establishments.

1.2 SIGNIFICANCE OF THE RESEARCH PROBLEM:

Traditionally, cost accounting is considered as the technique and process of ascertaining costs of a given thing. In sixties, the definition of cost accounting was modified as 'the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and ascertainment of profitability of goods, or services'. It includes the presentation of information derived therefrom for the purpose of managerial decision making.[6] It clearly emphasizes the importance of cost accountancy achieved during the period by using cost concepts in more and more areas and helping management to arrive at good

[5] Jain Khandelwal Pareek, *Cost Accounting*, Ajmera Book depot, Jaipur, 2005, p.22.
[6] Khan and Jain, *Management Accounting*, Calicut: S. Chand & Sons, 2004; I. M. Pandey, *Management Accounting*, New Delhi: S. Chand & Sons, 2007, p.17.

business decisions.

Today, the scope of cost accounting has enlarged to such an extent that it now refers to the collection and providing all sorts of information that assists the executives in fulfilling the organisational goals. Modern cost accounting is being termed as management accounting, since managers being the primary user of accounting information are increasingly using the data provided by the accounts, setting objectives and controlling the operations of the business.

It is in view of the above that the researcher will try to find out whether cost accounting has proved to be the better option for carrying out accounting processes of various organizations/establishments. Moreover, the research will find out whether through cost accounting, organizations/establishments are indeed able to find out the correct price of commodities being produced by various companies.

1.3 REASONS FOR SELECTION OF PRESENT TOPIC FOR RESEARCH:

Many factors are considered while fixing the price of a product/item such as competitors' price, *etc.* One of the basic factors is the cost of its production.[7] Cost is essential not only to fix price but also to ascertain the

[7] M.R. Agarwal, *Managerial Accounting*, Bombay: Garima Publications, 2003, p.69.

margin of profit. Knowledge of the cost determination is also necessary to keep a check on the cost of product/control on wastages, *etc*. This is so because all types of business entities-manufacturing, merchandising and service businesses require cost accounting information systems to track their activities. For instance, manufacturers convert purchased raw materials into finished goods by using labor, technology, and facilities, merchandisers purchase finished goods for resale. For profit service businesses, such as health clubs, accounting firms, and NHL hockey teams, sell services rather than products. It is thus essential to have an effecting cost accounting system in place for determining the prices of products before they are put for sale.

There are a number of reasons for selection of the present topic for research. The most important is to define the cost accounting, state the areas in which cost accounting can assist in management, list the uses of cost data, state the elements of a product's cost, *etc*. This apart, this research will try to explain the relationship of cost accounting to financial and management accounting. It will also distinguish between the two accounting systems besides illustrating the basic cost accounting procedures.

1.4 REVIEW OF LITERATURE:

A serious researcher must undertaken a review of literature before proceeding with his or her area of study. The researcher through review of literature interprets and critically evaluates the existing literature in order to accumulate over all knowledge of the subject.[8] This ultimately clears the picture for the researcher to formulate researchable questions or hypotheses on the area of study.[9]

The review of literature is the very basis of research. It generally resolves controversies, hints at the need for additional research, and/or defines a topic of inquiry.[10] Through literature review, the researcher not only avoids repetition in the work which may have been already undertaken but also helps in avoiding mistakes committed by previous researchers on the area of study.[11]

A significant number of books, articles and papers have been published over the last quarter of a century on the subject of cost accounting. For instance, there are various authors who have written various books on cost accounting, i.e., Jain, Khandelwal Pareek,[12] Agrawal, Shah, Mendiratta, Agarwal Sharma Tailor,[13] Oswal Maheshwari Modi,[14] Jain Khandelwal

---

[8] "Writing a Literature Review", *http://www.csu.edu.au/__data/assets/pdf_file/0005/82796/LitReview.pdf*, Clare & Hamilton, *Writing Research* 8, (2003).

[9] A literature review provides an overview of the scholarly writings published on a topic by accredited scholars and researchers.

[10] "Writing a Literature Review", *supra* note 7; Aveyard, Helen, *Doing a Literature Review in Health and Social Care: A Practical Guide*, 2nd edn., (Berkshire, Great Britain: Open University Press, 2010).

[11] Cottrell, R. R., & McKenzie, J. F., *Health Promotion and Education Research Methods: Using the Five Chapter Thesis/Dissertation Model*, 2nd ed., (Boston, MA: Jones & Bartlett Publishers, Inc., 2011).

[12] Jain, Khandelwal Pareek, *Cost Accounting*, Ajmera Book Depot, Jaipur, 2002, p.51. *See also*, *Cost Accounting: Core Course*, University of Calicut, School of Distance Education.

[13] Agrawal, Shah, Mendiratta, Agarwal Sharma Tailor, *Cost and Management Accounting*, New Delhi: Malik and Co., 1999.

[14] Oswal Maheshwari Modi, *Cost Accounting*, RBD, Jaipur, 2005, p.72.

Pareek,[15] Khan and Jain,[16] I. M. Pandey,[17] and M.R. Agarwal.[18] All these books and other materials available online shall be reviewed.

It is in view of the foregoing that this research will seek to bridge a knowledge gap and enhance understanding of the practical realities of process costing as a fundamental method of cost accounting in today's commercialised world.

1.5 HYPOTHESIS:

For any research undertaken, hypothesis must be made. Hypothesis is not only the presumptive statement of a proposition which the investigation seeks to prove or disprove[19] but also a proposition, or set of propositions, set forth as an explanation for the occurrence of some specified group of phenomena, either asserted merely as a provisional conjecture to guide investigation or accepted as highly probable in the light of established facts.[20]

This study will attempt to answer questions as to whether the process costing in various organizations/establishments is an ideal method for determining the cost of products in order to make a profit margin.

---

[15] *Ibid*.
[16] Khan and Jain, *Management Accounting,* Calicut: S. Chand & Sons, 2004, p.63.
[17] I. M. Pandey, *Management Accounting*, New Delhi: S. Chand & Sons, 2007, p.5.
[18] M.R. Agarwal, *Managerial Accounting*, Bombay: Garima Publications, 2003, p.38.
[19] "Hypothesis", *http://people.du.ac.in/~pkdas/RM/rm-3.pdf,*
[20] "Dictionary.com", *http://dictionary.reference.com/browse/hypothesis,*

Further, the study will to find out whether the mechanisms/procedure employed in process costing needs to be revamped in the light of the changing times and the introduction of multinational companies into India.

1.6 SCOPE OF THE PRESENT RESEARCH:

The scope and procedures of process costing as a fundamental method of cost accounting is wide and complex. The researcher will limit this study only to cost accounting and process accounting as a fundamental method of costing. The principal areas to be covered in the study shall be highlighted in the Five Chapters that will be undertaken.

1.7 METHODOLOGY ADOPTED FOR COLLECTION OF DATA:

Methodology is very important in any research. The adopted methodology of research in this Dissertation is doctrinal which involves the arranging, ordering and systematizing of propositions on cost accounting. In this regard, the primary sources available in the library and on the internet will be perused for collection of data. In addition to these, secondary sources like for *e.g.,* Commentaries written by various authors, Articles published in Journals, Newspapers and various Websites will also be relied upon.

1.8 SCHEME OF THE DISSERTATION:

Any meaningful research must be divided into different segments that explain various concepts in a systematic manner. The *First Chapter* of this dissertation highlights the significance of the research problem, reasons for selection of present topic for research, review of literature, hypothesis, scope of the present research, methodology adopted for collection of data and scheme of the dissertation.

The *Second Chapter* of the dissertation entitled “Cost Accounting: A Bird’s Eye View” deals with the growth and development of cost accounting, nature and scope of cost accounting, need for cost accounting, definition of cost accountancy, objectives of cost accounting, basic cost concepts and advantages and disadvantages of cost accounting.

The *Third Chapter* of the dissertation entitled “Relationship Between Financial Accounting and Cost Accounting” deals with points of similarities and dissimilarities, functions of cost accountants, criticisms or objections leveled against cost accounts and types, methods and techniques of cost accounting.

The *Fourth Chapter* entitled “Process Costing as a Form of Cost Accounting” is the crux of this Dissertation. In this segment, the meaning of process costing, costing procedure and solved illustrations on process costing is undertaken.

The last segment of this Dissertation *i.e., Chapter Five* will incorporate the conclusions and suggestions arrived at from the study undertaken.

Chapter 2

COST ACCOUNTING: A BIRD'S EYE VIEW

Chapter 2

COST ACCOUNTING: A BIRD'S EYE VIEW

2.1 INTRODUCTION:

The cost accounting system is part of an enterprise's information system and refers to the internal cost tracking and allocation systems to track costs and expenditures.[1] These are internal rather than external accounting systems. There are no fixed rules governing how an entity should keep track of cash flows internally, although there are many formal methods available for users. Good cost accounting is vital to understanding the profitability of current activities and to predicting the profitability of future activities of an organisation.[2]

2.2 GROWTH AND DEVELOPMENT OF COST ACCOUNTING:

Accounting is a very old profession which can be traced back to the fourteenth century.[3] Financial accounting is in use with the dawn of civilisation. As soon as counting and arithmetic started, and the use of money replaced the barter system, the financial accounting emerged in some form or other. However, cost accounting is traceable to the earlier part of the

[1] P.E. Bailey, *Full Cost Accounting for Life Cycle Costs - A Guide for Engineers and Financial Analysts, Environmental Finance*, 13-29, Spring, 1991, p.11.
[2] Oswal Maheshwari Modi, *Cost Accounting*, RBD, Jaipur, 2005, p.2.
[3] Helen Brand, *Closing the value gap: understanding the accountancy profession in the 21st century*, 2012, *available at* http://www.accaglobal.com/content/dam/acca/global/PDF-technical/human-capital/tech-tp-ctvg.pdf.

seventeenth century.[4]

The earliest reference of cost accounting can be found in Robert Loder's farm accounts 1610–20. However, the industrial revolution in the 18th Century brought about extensive mechanisation of production system resulting in large scale production. Some sporadic efforts were made in Britain and America to install factory cost systems as far back as 1805. But the concept of prime cost was used around 1875 by some industrialists.[5]

Between 1885 and 1901, a number of publications from London and New York explained the cost of manufacture, the distribution of establishment charges, the commercial organisation of the factories, factory accounts – their principles and practices, and finally a complete text book on Cost Accounting Theory and Practice was published by J.L.Nicholson from New York in 1913.

The cost accounting concepts advanced further with the beginning of the First World War. The 'cost plus' concept was introduced during the war time in order to avoid delay in executing urgent supplies. The contracts were entered on the basis that the supplier would be reimbursed the cost 'plus' a fixed percentage to cover administration and other overhead expenses and

[4] Institute of Cost and Works Accountants of India, *Management Accounting*, 2013, *available at* http://cga.nic.in/writereaddata/management_accounting.pdf.
[5] Timothy J. Fogarty and Saad A. Al-Kazemi, *Leadership in Accounting: The New Face of an Old Profession*, 2012, *available at* http://aaajournals.org/doi/abs/10.2308/apin-10073?journalCode=apin.

profit. Immediately, two things happened. One, a demand for qualified persons to calculate cost and two, deliberation of cost concepts for identifying the items or elements that enter the cost.

Cost accountancy profession got a real boost-up when more and more people got interested in the profession. In 1919, the Institute of Cost and Works Accountants was established in Britain which is now known as the Chartered Institute of Management Accountants at London. Simultaneously, in America, the National Association of Cost Accountants, which is now known as the National Association of Accountants, was also established in New York. Under the leadership of these two institutes, the profession and the concepts of cost accounting developed significantly.[6]

Before the Second World War, the mechanism of standard cost accounting, budgetary control, flexible budgeting and direct costing became known in the U.S.A. and U.K.

In the course of its evolution, cost accounting passed through following stages:

- In the first stage of its development, cost accounting was concerned only with the three prime cost elements, *viz.*, direct material cost, direct labour cost and direct expenses. For recording the transactions

---

[6] Khan and Jain, *Management Accounting*, Calicut: S. Chand & Sons, 2004; I. M. Pandey, *Management Accounting*, New Delhi: S. Chand & Sons, 2007, p.29.

relating to materials the important documents used were stores ledger, a material requisition note, and materials received note. To account for labour cost, employee time card and labour cost card were devised by Mr. Metcalfe. Later on a distinction between manufacturing and non-manufacturing cost was made by Mr. Norton. Thus material cost, labour cost and manufacturing cost constituted prime cost.

- Secondly, around the turn of the nineteenth century, the importance of nonmanufacturing cost (overheads) was recognised as one of the distinct element of cost. The method of charging non-manufacturing cost to the production cost was devised under this stage.
- Thirdly, the techniques of estimation and standards were devised. Instead of using actual cost, standard costs are used and by comparing with the actual cost the differences are noted, analysed and disposed off accordingly. This helps in knowing the efficiency of the business undertaking.
- Fourthly, cost accounting methods were applied to all types of business undertakings. The costing principles and techniques were also extended to important functions of a business.
- In modern times the development of electronic data processing has

occupied significant stage in the growth of cost accounting system.[7] In India, the application of cost accounting methods in Indian industries was felt from the beginning of the twentieth century. Prior to independence, there were a few cost Accountants, and they were qualified mainly from Chartered Institute of Management Accountants, London. During the Second World War, the need for developing the profession in the country was felt, and the leadership of forming an Indian Institute was taken by some members of Defence Services employed at Kolkata.

Costing profession was in an embryonic stage at that time. However, with the enactment of the *Cost and Works Accountants of India Act*, 1959, the Institute of Cost and Works Accountants of India was established at Kolkata. The Institute has grown in stature, having Fellow, Associate and Student Members. The Institute controls its function through its Head Office at Kolkata and four Regional Offices at Mumbai, Kolkata, Delhi and Chennai. Each of the Regional Offices has several Chapter Offices to look after the interest of the local members and the profession.

The profession assumed further importance in 1968, when the Government of India introduced selective Cost Audit under Section 233-B of the *Companies Act*, 1956 and framed *Cost Accounting Record Rules*,

[7] Timothy J. Fogarty and Saad A. Al-Kazemi (2011) Leadership in Accounting: The New Face of an Old Profession. Accounting and the Public Interest: December 2011, Vol. 11, No. 1, pp. 16-31.

1968 for this purpose. Although Cost Audit is not compulsory, but selective for a few nominated industries yet the profession was greatly benefited and more persons are now interested to join the profession.

Today, the extensive use of cost accounting techniques has led to new concept of information technology, operational control and performance measurement. The concepts of Activity Based Costing, strategic control systems, flexible production system, *etc.*, are key words for modern cost management.

All in all, the following factors have accelerated the system of cost accounting in India:

- Economic policy of Government which laid emphasis on planned economy with a view to achieve the targets led to cost reduction programmes by Indian industrialists;
- Increased awareness of cost consciousness by Indian industrialists with a view to ascertain costs more accurately for each product or job;
- The establishment of National Productivity Council in 1958 and the Statutory Recognition of Institute of Cost and Works Accountants of India in 1959 gave further encouragement to install cost accounting system in Indian industries;
- Increased Government control over pricing led the Indian

manufacturers to give utmost importance to the installation of cost accounts, and

- Growing competition among manufacturers led to fixation of prices at a lower level so as to attract more customers.[8]

2.3 NATURE AND SCOPE OF COST ACCOUNTING:

The nature of cost accounting can be brought out under the following headings:

- **Cost accounting is an art:** Cost accounting is an art in the sense it requires the ability and skill on the part of cost accountant in applying the principles, methods and techniques of cost accountancy to various management problems. These problems include the ascertainment of cost, control of costs, ascertainment of profitability, *etc*;
- **Cost accounting is a branch of knowledge:** Though considered as a branch of financial accounts, cost accounting is one of the important branch of knowledge, *i.e.*, a discipline by itself. It is an organised body of knowledge consisting of its own principles, concepts and conventions. These principles and rules of course vary from industry to industry;[9]

---

[8] International Federation of Accountants, *Professional Accountants in Business—At the Heart of Sustainability*? 2006, *available at* http://www.ifac.org/sites/default/files/publications/files/professional-accountants-in.pdf.
[9] Dutta, *Cost Accounting*, Hippa Pvt Ltd., 2005.

- **Cost accounting is a profession:** In recent years cost accounting has become one of the important professions which has become more challenging. This view is evident from two facts. *First*, the setting up of various professional bodies such as National Association of Accountants in USA. The Institute of Cost and Management Accountants in UK, the Institute of Cost and Works Accountants in India and such other professional bodies both in developed and developing countries have increased the growing awareness of costing profession among the people. *Secondly*, a large number of students have enrolled in these institutes to obtain costing degrees and memberships for earning their livelihood[10];
- **Cost accounting is a science :** Cost accounting is a science as it is a body of systematic knowledge relating to not only cost accounting but relating to a wide variety of subjects such as law, office practice and procedure, data processing, production and material control, *etc*. It is necessary for a cost accountant to have intimate knowledge of all these field of study in order to carry on his day-to-day activities. But it is to be admitted that it is not a perfect science as in the case of natural science.

[10] Hassan Ibrahim Rkein, *Obstacles to Accounting: The Mathematics Factor, available at* http://www.wbiconpro.com/104-Hassan.pdf.

The terms ‘costing’ and ‘cost accounting’ are many times used interchangeably. However, the scope of cost accounting is broader than that of costing. Following functional activities are included in the scope of cost accounting:

a) *Cost ascertainment:* Ascertaining cost of products, processes, jobs, services, *etc.*, is the important function of cost accounting. Cost ascertainment becomes the basis of managerial decision making such as pricing, planning and control.

b) *Cost book-keeping:* It involves maintaining complete record of all costs incurred from their incurrence to their charge to departments, products and services. Such recording is preferably done on the basis of double entry system.

c) *Cost system:* Systems and procedures are devised for proper accounting for costs.[11]

d) *Cost Analysis:* It involves the process of finding out the causal factors of actual costs varying from the budgeted costs and fixation of responsibility for cost increases.

e) *Cost Reports:* Presentation of cost is the ultimate function of cost accounting. These reports are primarily for use by the management at

[11] International Federation of Accountants, *Professional Accountants in Business—At the Heart of Sustainability*? 2006, *available at* http://www.ifac.org/sites/default/files/publications/files/professional-accountants-in.pdf.

different levels. Cost Reports form the basis for planning and control, performance appraisal and managerial decision making.

f) *Cost comparisons:* Cost accounting also includes comparisons between cost from alternative courses of action such as use of technology for production, cost of making different products and activities, and cost of same product/ service over a period of time.

g) *Cost Control:* Cost accounting is the utilisation of cost information for exercising control. It involves a detailed examination of each cost in the light of benefit derived from the incurrence of the cost. Thus, we can state that cost is analysed to know whether the current level of costs is satisfactory in the light of standards set in advance.

2.4 NEED FOR COST ACCOUNTING:

Generally, the need for cost accounting arises owing to the following:

a) **To Ensure Optimum Utilisation of Resources:** In today's business world, the resources available are very scarce. Hence every business unit must strive hard to obtain maximum output with the available input. In order to ensure the optimum utilisation of scarce resources, the value of input is measured against the value of output. This implies matching cost per unit of production against the value of output or selling price. But financial accounts do not provide the information relating to cost per unit of production. Hence the need for cost accounting was felt necessary.

b) **To Achieve Overall Efficiency of Business:** Every businessman will make constant effort to improve his business. In order to formulate suitable policy and sound decision, he has to know answers to certain questions such as, what is the maximum profit which a business can make? is the profit earned by it is more or less compared to the earlier years? which product line is making more profit? whether capital is blocked in raw materials? whether the cost of production has gone up compared to earlier years? and should the selling price require revision? Cost accounting serves as an useful tool in the hands of management in this direction. By analysing the cost of production of every unit, it helps management to know the answers to these questions.[12]

c) **To Overcome the Limitations of Financial Accounts:** Financial accounting records in an overall manner the results of the operations of a business, using conventional double entry book-keeping techniques. It suffers from the following limitations:

- *It is static in nature:* Modern business is dynamic but not static.

[12] M.R. Agarwal, *Managerial Accounting*, Bombay: Garima Publications, 2003, p.41.

Financial accounts does not incorporate the changes that take place within the business.

- *It provides only past data:* Financial accounts provide out of date information to management. But management is interested in current data but not past data as it does not serve any purpose to it. Therefore it has been rightly pointed out that financial accounts provide only a post-mortem analysis of past activities.
- *It fails to take into account the impact of price level change:* In the modern inflationary conditions the price level has significant impact over financial statement. Under financial accounts, assets are shown at the actual or historical cost.[13] Consequently depreciation is also charged on actual or historical cost. This under charging of depreciation will distort the profit figure.
- *It reveals only overall result of the business:* Financial accounts do not provide data for each and every product, process, department or operation separately. Instead it provides the financial information in a summary form for the entire organisation as a whole.
- *Possibility of manipulation of financial accounts:* Very often

[13] Hassan Ibrahim Rkein, *Obstacles to Accounting: The Mathematics Factor, available at* http://www.wbiconpro.com/104-Hassan.pdf.

financial accounts are manipulated at the whims and fancies of management so as to project better image in the minds of prospective investors. The chief forms of manipulating the financial accounts assume the form of over or undervaluation of inventory, excessive or inadequate provision for depreciation, creation of secret reserves, *etc.*

- *It does not make use of control techniques:* Financial accounts fail to make use of certain important cost control techniques such as budgetary control and standard costing. Thus financial accounts do not facilitate measuring the efficiency of the business with the help of control techniques.
- *It fails to exercise control over resources:* Financial accounts fail to exercise control over materials, labour and other expenses incurred in a business enterprise. As result, avoidable wastages and losses go unchecked under this system of accounts.[14]
- *It fails to provide adequate data for price fixation:* Financial accounts fail to provide adequate cost data on the basis of which selling price is fixed. In the absence of fixation of prices in advance, it is not possible to supply quotations to the prospective

[14] *Ibid.*

customers. To that extent the income from such sales diminishes.

- *It fails to provide adequate data for management in carrying out its functions:* Management of every organisation relies heavily on adequate cost data for formulating policies and in decision-making process. But financial accounts fail to provide such useful cost data to management.[15]
- *It fails to ascertain break-even point:* Financial accounting does not help in ascertaining the break-even point, *i.e.*, the sale or output where the revenue equals the cost. Hence, the point of no-profit-no-loss cannot be made out under financial accounts.
- *It does not provide a basis for cost comparison:* Financial accounts do not help in cost comparison over a period of time or between two jobs or two operations. Thus a basis for judging the efficiency of an year with past year or worthfulness of two different jobs or operations cannot be appraised.

2.5 OBJECTIVES OF COST ACCOUNTING:

Cost accounting aims at systematic recording of expenses and analysis of the same so as to ascertain the cost of each product manufactured or

---

[15] Severin Grabski, Stewart Leech & Alan Sangster, *Management: A profession dramatically changed by erp systems*, vol 4, issue 5, *available at* http://www.cimaglobal.com/documents/thought_leadership_docs/cid_ressum_management_accountants_and_erp_dec08.pdf.

service rendered by an organization. Information regarding cost of each product or service would enable the management to know where to economize on costs, how to fix prices, how to maximize profits and so on. Thus, cost accounting has the following main objectives to serve:

- **Determining selling price:** The objective of determining the cost of products is of main importance in cost accounting. The total product cost and cost per unit of product are important in deciding selling price of product. Cost accounting provides information regarding the cost to make and sell product or services.[16] Other factors such as the quality of product, the condition of the market, the area of distribution, the quantity which can be supplied *etc.*, are also to be given consideration by the management before deciding the selling price, but the cost of product plays a major role.

- **Providing information for decision-making:** Cost accounting helps the management in providing information for managerial decisions for formulating operative policies. These policies relate to the following matters: Determination of cost-volume-profit relationship; Make or buy a component; Shut down or continue operation at a loss; and Continuing with the existing machinery or replacing them by

[16] Horngren.T.chareles, Datar. M. Srikant *Cost Accounting a Managerial Emphasis,* Pearson, 1999, p.16.

improved and economical machines.

- **Controlling cost:** Cost accounting helps in attaining aim of controlling cost by using various techniques such as Budgetary Control, Standard costing, and inventory control. Each item of cost *viz* material, labour, and expense is budgeted at the beginning of the period and actual expenses incurred are compared with the budget. This increases the efficiency of the enterprise.
- **Facilitating preparation of financial and other statements:** Cost accounting helps to produce statements at short intervals as the management may require. The financial statements are prepared generally once a year or half year to meet the needs of the management. In order to operate the business at high efficiency, it is essential for management to have a review of production, sales and operating results. Cost accounting provides daily, weekly or monthly statements of units produced, accumulated cost with analysis. Cost accounting system provides immediate information regarding stock of raw material, semifinished and finished goods. This helps in preparation of financial statements.[17]
- **Ascertaining costing profit:** Cost accounting helps in ascertaining

[17] Agrawal, Shah, Mendiratta, Agarwal Sharma Tailor, *Cost and Management Accounting*, New Delhi: Malik and Co., 1999, p.7.

the costing profit or loss of any activity on an objective basis by matching cost with the revenue of the activity.[18]

- **Other objectives:**

    a) To analyse and classify all expenditure with reference to the cost of products and operations;

    b) To arrive at the cost of production of every unit, job, operation, process, department or service and to develop cost standard;

    c) To indicate to the management any inefficiencies and the extent of various forms of waste, whether of materials, time, expenses or in the use of machinery, equipment and tools. Analysis of the causes of unsatisfactory results may indicate remedial measures;

    d) To provide data for periodical profit and loss accounts and balance sheets at such intervals, *e.g.* weekly, monthly or quarterly as may be desired by the management during the financial year, not only for the whole business but also by departments or individual products. Also, to explain in detail the exact reasons for profit or loss revealed in total in the profit and loss accounts;

    e) To reveal sources of economies in production having regard to methods, types of equipment, design, output and layout. Daily,

[18] Horngren.T.chareles, Datar.M.Srikant *Cost Accounting a Managerial Emphasis,* Pearson, 1999.

Weekly, Monthly or Quarterly information may be necessary to ensure prompt constructive action;

f) To provide actual figures of costs for comparison with estimates and to serve as a guide for future estimates or quotations and to assist the management in their price fixing policy;

g) To show, where Standard Costs are prepared, what the cost of production ought to be and with which the actual costs which are eventually recorded may be compared;

h) To present comparative cost data for different periods and various volume of output and to provide guidance in the development of business. This is also helpful in budgetary control;

i) To record the relative production results of each unit of plant and machinery in use as a basis for examining its efficiency. A comparison with the performance of other types of machines may suggest the necessity for replacement;

j) To provide information to enable management to make short term decisions of various types, such as quotation of price to special customers or during a slump, make or buy decision, assigning priorities to various products, etc;

k) To provide a perpetual inventory of stores and other materials so that interim Profit and Loss Account and Balance Sheet can be prepared without stock taking and checks on stores and adjustments are made at frequent intervals; and

l) To provide the basis for production planning and for avoiding unnecessary wastages or losses of materials and stores.[19]

2.6 BASIC COST CONCEPTS AND CLASSIFICATION:

For proper understanding, this sub-topic is divided into two segments as follows:

2.6.1 COST CONCEPT:

Generally, to understand the cost concept one should first know what is 'cost', 'expenses' and 'loss'.

Cost: By and large cost may be explained as the amount of expenditure, actual or notional, relating to a specific thing or activity such as product, job, service, process *etc.* It may also be expressed as a sacrifice which may be defined in the terms of money means it is the amount of resources given up in exchange for some goods and services. Cost and expenses are different but relative terms.[20]

Where 'costs' includes the cost of material and labour in addition to expenses, the term expenses is widely applied in financial accounts for

[19] Gopalakishanan.P., *Purchasing and Material Management*, Tata McGraw-Hill Education pvt Ltd, 2007.
[20] Bhar B.K., *Cost accounting*, Academic publications, 2009, p.24.

various types of historical cost. In cost accounting, it is used for costs other than cost of raw material and wages. To understand the meaning of cost, it is necessary to define the meaning of expenses.[21]

Expenses: Generally expenses are called expired costs means those costs which have been used up totally in generating revenue. They are not capitalised but only shown as expenses in income statement. There are so many examples of expenses such as costs of goods sold expenses, selling expenses and administrative expenses.

For expenses, there is no need to be paid in cash immediately; even a promise to pay could be made for the profits received. The manufacturing costs are capitalised in the form of finished goods inventory and when a sale is incurred, they expire becoming expenses. The cost of unsold stock which was an asset prior, now converts expenses of cost of goods sold as it has contributed to the generation of revenue.[22]

Manufacturing expenses may be expressed as cost because this is included in the cost of fished goods stock which is an asset unless sale is made. For example, depreciation of a factory machine increases the utility of goods manufactured which are therefore included in work-in-progress and finished goods inventory.

[21] Jain & Narang, *Cost Accounting*, Kalyani Publications, New Delhi, 2001, p.32.
[22] Prof. M.L. Agarwal & Dr. K.L. Gupta, 2010, *Cost Accounting*, First Edition, Sahitya Bhawan Publication, p.11.

Selling and administrative expenses, when not included in the cost of finished goods stock, are deemed only as expenses, not cost (asset) and are deducted from revenues whenever obtained. Similarly, depreciation of a factory building is a cost but depreciation of an office building is an expense.

The term cost itself is without any significant meaning and therefore, it is always advisable to use it with an adjective or phrase that will convey the meaning intended such as prime, direct, indirect, fixed, variable, controllable, opportunity, imputed, sunk, differential, marginal, replacement and the like. Future costs are also considered in cost accounting but not in financial accounting.

Loss: Loss is lost cost. It is applied to define two accounting events. In financial accounting, it is used to describe a circumstance where expenses exceed revenues for an accounting period, that is, the reverse of net income (earnings) for the accounting period. On the other hand, a loss arises due to the cost of an asset being more than the sale proceeds when the asset is sold. This unfavourable event does not arise from a normal business activity but from non-operating transactions or events. This meaning of loss is used to recognize the reverse of gain. That is, if no gain is achieved from the cost incurred or it becomes definite that no benefits accrue, the cost becomes a lost cost, *i.e.*, loss on sale of fixed asset, loss of stock due to fire, *etc.*[23]

There are six basic cost concepts on which cost classification and various cost terms are based, which are as follows:

- **Concept of Time Span:** All assumptions relating to various cost exercises remain valid only during related specific time span. The fixed cost statement is relied upon a time span under consideration. No costs will remain fixed for the whole time. Time span choosed by a firm should be more enough to permit the procedures to record the related cost, output, labour hours and other factors required in the interpretation or analysts. If time span is too less, leads and lags in recording the cost data may be quite hassle. If cost associating to a specific time span activity is recorded to another time span activity, cost result may turn out to be quite wrong
- **Concept of Objectivity:** This concept helps to give direction to the operations referred to cost finding, cost analysing, cost recording and cost reporting. This concept requires goal congruence *i.e.*, cost exercises have to be in harmony with the objectives. Objectives influence cost treatments and cost strategies which may include internal reporting for operational, external and specific non repetitive

[23] P.C. Tulsian, 2006, *Cost Accounting*, First edition, TMH.

decisions.

- **Concept of Materiality:** This concept that forces exactness must be tempered by good judgement, if no misrepresentation of product cost is likely to result. For example, overhead may include few items of direct cost, which may not be as material as to justify tracing them to particular unit of production. A specific decision may be helpful, but benefits may not be materially sufficient to implement it. Materiality is determined with reference to nature of firm's affairs, managerial policies and competitors' practices.[24]
- **Concept of Relevant Range of Activity:** Relevant range of activity reveals the span of volume over which the cost behaviour is expected to remain valid. Various cost activities are relied upon on specific assumptions relating to cost behaviour patterns, which are valid only within the related range of cost exercise. A fixed cost is fixed only in relation to the relevant range of activity during the time span.
- **Concept of Normal and Abnormal Cost:** The term normal refers for cost or circumstances which is in agreement with what is representative, usual or regular. The term abnormal refers for cost or circumstances which are varied from what is normal, expected or

[24] D. M. Wilson, 2009, *Cost Accounting*, First Edition, Himalaya Publication House, p.67.

ordinary. Various cost accounting treatments and strategies are laid down for normal and abnormal cost and circumstances. Generally these terms are used in reference to normal or abnormal working situations in cost accounting discussions.[25]

- **Concept of Relevant Cost and Benefit:** This concept is for decision-making objectives. In appraising alternative courses of action, management should consider only relevant cost and relevant profits relating to alternatives under consideration. Irrelevant cost and benefits are ignored. The affects of this concept on operating or cong range capacity decisions are as follows:

  a) Relevant Cost and Profit for Operating Decisions: In operating decisions concentration is on optimum application of existing capacity. Increment analysis is based on differential cost and differential revenue is based directly on the concept of relevant cost and profit.

  b) Relevant Cost and Profit for Capacity Decisions: Relevant cost and profits to a capacity decision are varied from the cost and profits relevant to an operating decision. In the long-term, the concepts of fixed and variable cost are meaningless. In long-term decisions, cost and profits are evaluated in relation of their influence on cost. A long-

[25] Dr. M. N. Arora, 2009, *Theory & Practices of Cost*, First Edition, Himalaya Publication House, p.15.

term decision must consider time value of money, the timing of the investment and recovery of cost. The terms out-of-pocket cost and sunk cost are also considered from this perspective.

2.6.2 CLASSIFICATION OF COST:

For achieving cost accountancy objectives, cost need to be computed, classified and grouped. The various cost classifications are as follows:

a) **Normal Classification of Cost**:

i) Direct Material cost: Material means those items which are applied for manufacturing of a product and direct material is directly related to production. For example, raw cotton in textiles, crude oil to make diesel *etc*. There are so many names of direct materials such as process material, prime cost material, stores material and construction materials. Main points for direct material can be summarized as follows:

- Direct material specially acquired for a particular job, order, process or product;
- It is integrated part of manufacturing unit;
- Value of direct material is comparatively higher than that of other materials;
- Material passing from one process to another process;

- Primary packing materials *e.g.*, wrapping, cardboard boxes, the glass bottle in production of syrup *etc*, and
- It Increases in the same ratio as the increase in production.[26]

ii) **Indirect Material Cost**: In the words of Institute of Cost and Management Accountants of London "indirect material cost is the material cost which cannot be allocated but which can be apportioned to or absorbed by cost centres or cost units''. Thus it may be said that indirect cost is the cost which cannot be directly identified to the unit of output or to the segment of a business activity e.g. oil, grease, consumable stores *etc*.[27]

iii) **Direct Labour Cost**: Direct labour is known as the wage of those workers who are involved in the production process whose time can be efficiently and economically traceable to units of products *e.g.*, wages paid to compositors in a printing press, labour of machine operators and assemblers. It may also be defined as prime labour cost, process labour cost, operating labour cost, manufacturing wages, Direct wages and productive labour cost. In the words of Institute of Cost and Management Accountants of London, "direct wages is that wages which can be allocated to cost

---

[26] Jain, Khandelwal, Pareek, *Cost Accounting* (Ajmera Book depot, Jaipur), 2007, p.28.
[27] Ghosh,P.K., *Cost Accounting*, National Publishing House, New Delhi, 2010, p.23.

centres or cost units."

iv) **Indirect Labour Cost**: Some workers does not engage directly in conversion of output but contribute indirectly. Labour is paid for the objective of carrying tasks incidental to goods or service provided. It cannot be practically traced to particular units of output *e.g.,* wages of store-keepers, foremen, time-keepers, supervisors, Inspectors etc. In the words of Institute of Cost and Management Accountants of London, "Wages which cannot be allocated but which can be apportioned or absorbed by cost centres or cost units is indirect wages.''

v) **Direct Expenses Cost**: It is also defined as chargeable expenses. These direct expenses are incurred directly on a particular product, job or cost units and recognizable with the cost units. According to Institute of Cost and Management Accountants of London, "Direct expenses means, expenses which can be allocated to cost centres or cost units." For example, hiring of a particular tool plant or equipment for job; cost of special moulds, designs and patterns; fees paid to architects, surveyors and consultants; insurance charges on special materials chargeable to a job.[28]

[28] *Ibid.*

vi) **Indirect Expenses Cost**: Those expenses which cannot be directly, conveniently and fully charged to cost units are known as indirect expenses In the words Institute of Cost and Management Accountants of London, "Indirect expenses are expenses which cannot be allocated but which can be apportioned to or absorbed by cost centres or cost unit" For example, insurance, power, lighting and heating, rent, rates and taxes, depreciation etc.[29]

b) According to Variation in Production Activity and Quantity: Costs can be divided into:

i) **Fixed Cost:** Fixed cost is a cost which does not vary in total for a given time period in spite of wide fluctuation in production or volume of activity. These costs are also termed as standby costs, capacity costs or period costs. Few examples explaining the nature of fixed costs are rent, property taxes, supervising salaries, depreciation on office facilities, advertising, Insurance, *etc*. Fixed costs are incurred with the passage of time and not with the production of the product or the job. Hence, fixed costs are defined in terms of time, such as per day, per month or per year and not in terms of unit. It is totally illogical to say that remuneration of

[29] Maheshwari, Mittal, *Cost Accounting and Financial Management*, Shri Mahaveer Book Depot, Delhi, 1999, p.27.

supervisor in the form of salary and perquisites are so much per unit but, it can be said that supervisor's salary and perquisites are so much per month. Fixed costs can be further classified in the following categories.[30]

a) **Committed costs:** Those costs are unavoidable in short-term if the concern has to function. Such costs are basically incurred to maintain the company's benefits and physical existence, and over which management has little or no discretion. Few examples of committed costs are plant and equipment depreciation, taxes, insurance premium, rate and rent charges.

b) **Managed costs:** Managed costs are related to current activities which must continue to be incurred to ensure the operating existence of the company *e.g.,* management and staff salaries.

c) **Discretionary costs:** They are also identified as programmed costs. Discretionary costs result from special policy decisions, management programmes, new researches etc. Few examples of such costs are research and development costs, marketing programmes, new system development costs. The difference between committed and discretionary costs is that it is hard to

[30] Ravi. M. Kishore, '*Cost Accounting'*, Taxmann Publication, New Delhi, 2004, p.52.

eliminate or neglect committed costs in times of low production or decline in business activity, whereas discretionary costs such as research and development could be reduced to a desirable level.

d) **Step costs:** A step cost is fixed for a given amount of production and then rises in a constant amount at a higher production level.

ii) **Variable Cost:** Variable Cost is those costs that change directly and accordingly with the production. There is a fixed ratio between the variation in the cost and variation in the level of output. Direct materials cost and direct labour cost are the costs which are generally variable costs.[31] Variable overheads like factory supplies, indirect materials, sales commission, office supplies are some other examples of variable costs. If the factory is shut down, variable costs are eliminated.

iii) **Semi-variable/Fixed Cost (Mixed Cost):** Mixed costs are costs made up of fixed and variable items. They are a combination of semi-variable costs and semi-fixed costs. Because of the variable element, they vary with volume; because of the fixed element, they

[31] *Ibid*.

do not fluctuate in direct proportion to output. Semi-fixed costs are those costs which remain fixed up to a certain level of production after which they become variable.

c) **Degree of Changeability to the Product**: According to this basis, cost may be divided into direct and indirect cost. **Direct Cost:** it may be defined as the term of direct materials, direct labour and direct overheads. That means it is a cost which can be directly identified to a unit of output or the segment of a business operation. It output units are the objects of costing, then direct cost represent cost and resources that can be traced to or identified with the finished product. **Indirect Cost:** Indirect costs are those costs which cannot be associated with or chargeable to a single product because they are incurred for more products. The examples of indirect costs are: indirect materials (lubricants and scrap materials), salary of factory supervisors (indirect labour), rent, rates and depreciation (indirect expenses). Indirect costs, often related to as overheads, have to be apportioned to various products.[32]

d) **Degree of Relation with the Product**: Cost may be divided into product costs and period costs in terms of relation with the product.

[32] *Supra* note 10.

Product Cost: Generally product costs are identified with the product and merged in inventory values. In other words, product costs are those costs that are included in the cost of manufacturing a product. In a manufacturing firm, it is the combination of four elements: (i) direct materials, (ii) direct labour, (iii) direct expenses, and (iv) manufacturing overhead. Thus, product cost is a complete factory cost. Prior to sale, product costs are deferred as inventories and until the goods are sold, are shown on the balance sheet as assets. As finished inventory goods is sold, product costs are transferred from the inventory accounts to the cost of goods sold account thus becoming expenses and part of the period costs at the time revenue is realised. **Period Cost:** Period costs are those costs which are not identified with product or activity during the period in which they are evolved. They are not carried forward as a part of value of stock to the next accounting period.[33] These costs are required to generate revenues but they cannot be directly related with units of product. Difference of opinion exists regarding whether certain costs should be considered as product or period costs

e) **Functional Classification of Costs**: Functional classification of costs

[33] *Ibid.*

defines how the cost was applied (manufacturing, administration or selling). A functional classification expresses that the business performs various functions for which costs are incurred. In measuring net income, expenses are usually classified by function and grouped under the headings of manufacture, selling and administrative costs. Manufacturing costs are all production cost incurred to manufacture the products and to bring them to a saleable condition, including direct materials, direct labour and indirect manufacturing (or factory overhead) costs. Selling and administrative charges may be assumed as expenses when incurred or charged to prepaid expense accounts such as prepaid insurance. Functional classification is also important because it gives an opportunity to the management to calculate the efficiency of departments performing various functions in the firm.[34]

f) **Association with Accounting Period**: Costs can also be classified into two major classes on the basis of the accounting period to which they relate: (i) capital expenditures, and (ii) revenue expenditures.

g) **Costs for Decision-Making and Planning:** These include **Opportunity Cost:** opportunity cost is the cost of opportunity lost. **Sunk Cost:** Sunk cost is past or historical cost which has already been

[34] Greg Navarro, *The Accounting Profession Redefined: Setting Standards for Good Governance*, 2005, *available at* http://xsite.dlsu.edu.ph/research/centers/cberd/conferences/accounting.pdf.

incurred. It may be known as unavoidable cost, it refers to all past costs since these amounts cannot be changed once the cost is incurred. They are the costs which have been created by a decision in the past and cannot be altered or neglected by any decision that is made in the future. **Relevant Cost:** Relevant costs are related to future, which differ between alternatives. Relevant costs may also be termed as the costs which are influenced and changed by a decision. On the other hand, irrelevant costs are not influenced by the decision, whatever alternative is selected. **Differential Cost:** Differential cost is the increase or decrease in total costs between any two alternatives due to change in activity or a particular management decision. Differential costs are similar to the additional variable expense charged in respect of the additional output, plus the increase in fixed costs, if any. **Imputed Cost / Notional Costs:** Imputed costs are those costs which do not involve actual cash outlay. These costs are not actually incurred in some transaction but which are relevant to the decision as they pertain to a particular situation.[35] **Out of Pocket Cost:** Out of pocket cost involves the cash outflows due to a particular management decision activity. Non-cash costs such as depreciation are not involved

[35] *Ibid.*

in out-of-pocket costs. This cost concept is important for management in deciding whether or not a particular project will at least return the cash expenditures related with the project choosen by management. **Shut Down Cost:** Shut down costs are those costs which have to be arise under all conditions in the case of stopping manufacture of a product or closing down a department or a division.

h) **Costs for Control:** These include: **Controllable and Uncontrollable Cost:** Controllable cost is that cost which is subject to direct control at some level of managerial supervision. The concept of controllable cost is very significant in cost accounting and contributes to the achievement of the goals of cost control and responsibility accounting. **Standard Cost:** Standard costs are those costs which are planned or pre-determined cost estimates for a unit of output in order to get a basis for comparison with actual costs. It is evaluated at assuming a particular level of efficiency in utilization of material, labour and indirect services. Standard costs are used to prepare budgets.[36]

i) **Other Costs:** These are: **Joint Cost:** Joint costs incur where the processing of a single raw material or production resources results in two or more various joint products or by-products up to the point of

[36] *Ibid.*

separation simultaneously. Joint costs relate to two or more products manufactured from a common production process or element- material, labour, or overhead or any combination thereof, or so locked together that one cannot be produced without producing the other(s).

Common Cost: Common costs are those which are incurred or charged for more than one product, job or any other certain costing object. These costs are not easily recognizable with individual product and therefore are normally apportioned. Common costs are common to products, processes, functions, responsibilities, customers, sales territories, costing units and period of time.

2.7 DEFINITION OF THE TERM COST ACCOUNTANCY:

The term cost accounting has no static definition. Charles T. Horngren defines the term as a quantitative method that accumulates, classifies, summarizes and interprets information for three major purposes *i.e.*, Operational planning and control; Special decision; and Product decision.[37]

Cost accounting is the process of determining and accumulating the cost of product or activity. It is a process of accounting for the incurrence and the control of cost. It also covers classification, analysis, and interpretation of cost. In other words, it is a system of accounting, which

[37] *Supra* note 3.

provides the information about the ascertainment, and control of costs of products, or services. It measures the operating efficiency of the enterprise. It is an internal aspect of the organisation.[38] Cost Accounting is accounting for cost aimed at providing cost data, statement and reports for the purpose of managerial decision making.

According to the Institute of Cost and Management Accountants of London, "Cost accounting is the process of accounting for costs from the point at which the expenditure is incurred of committed to the establishment of its ultimate relationship with cost units. In its widest sense, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of the activities carried out or planned is defined as the application of accounting and costing principles, methods and techniques in the ascertainment of costs and the analysis of saving and/or excess as compared with previous experience or with standards." In other words, it is the techniques and processes of ascertaining costs. These techniques consist of principles and rules which govern the procedure of ascertaining cost of products or services. The techniques to be followed for the analysis of expenses and the processes by which such an analysis should be related to different products or services differ from industry to industry.

[38] Stephen A. Zeff, How the U.S. Accounting Profession Got Where It Is Today: Part I, *Accounting Horizons,* Vol. 17, No. 3, September 2003, *available at* http://www.ruf.rice.edu/~sazeff/PDF/Horizons,%20Part%20I%20%28print%29.pdf.

These techniques are also dynamic and they change with time.[39]

Wheldon, on the other hand defines the term as the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived therefore for the purposes of managerial decision making.

Cost accounting thus provides information to the management for decision of all sorts. It serves multiple purposes on account of which it is generally indistinguishable from management accounting or so-called internal accounting.

2.8 ADVANTAGES AND DISADVANTAGES OF COST ACCOUNTING:

The limitations of financial accounting have made the management to realize the importance of cost accounting. Whatever may be the type of business, it involves expenditure on labour, materials and other items required for manufacturing and disposing of the product. The management has to avoid the possibility of waste at each stage. It has to ensure that no machine remains idle, efficient labour gets due incentive, by-products are properly utilized and costs are properly ascertained. Besides the

[39] The institute of cost and works accountants of India, *Guidance note on cost accounting standard on material cost*, 2011, *available at* http://casbicwai.org/casb/docs/Guide_note_cas6.pdf.

management, the creditors and employees are also benefited in numerous ways by installation of a good costing system.[40]

2.8.1 ADVANTAGES COST ACCOUNTING:

Cost accounting increases the overall productivity of an organization and serves as an important tool, in bringing prosperity to the nation, thus, the importance of cost accounting can be discussed under the following headings:

a) **Benefits to the Government:** Cost accounting enables the Govt. to prepare plans for economic development of the country, to make policies regarding taxation, excise duty, export, price, ceiling, granting subsidy, *etc.*

b) **Costing as an aid to Creditors**: Investors, banks and other money lending institutions have a stake in the success of the business concern are therefore benefitted immensely by the installation of an efficient system of costing. They can base their judgment about the profitability and future prospects of the enterprise on the costing records[41];

c) **Costing as an aid to employees**: Employees have a vital interest in

[40] Professor S. Roychowdhury, *Introduction To Cost Accounting*, Spring 2004, available at http://ocw.mit.edu/courses/sloan-school-of-management/15-501-introduction-to-financial-and-managerial-accounting-spring-2004/lecture-notes/lec19cost_acc.pdf.
[41] "Introduction to Cost Accounting", *http://www.flexstudy.com/catalog/schpdf.cfm?coursenum=9623a*,

their employer's enterprise in which they are employed. They are benefited by a number of ways by the installation of an efficient system of costing. They are benefited, through continuous employment and higher remuneration by way of incentives, bonus plans, *etc*.

d) **Costing as an aid to National Economy**: An efficient system of costing brings prosperity to the business enterprise which in turn brings prosperity to the business enterprise which in turn results in stepping up of the government revenue. The overall economic development of a country takes place as a consequence of increase in efficiency of production. Control of costs, elimination of wastages and inefficiencies led to the progress of the industry and, in consequence of the nation as a whole.

e) **Data Base for operating policy**: Cost Accounting offers a thoroughly analysed cost data which forms the basis of formulating policy regarding day to day business, such as whether to make or buy decisions from outside? Whether to shut down or continue producing and selling at below cost? or whether to repair an old plant or to replace it?

f) **Benefits to Consumers/Public:** Cost accounting helps consumers in getting goods of better quality at reasonable price.

g) **Costing as an aid to management**:- Cost accounting provides invaluable aid to management. It provides detailed costing information to the management to enable them to maintain effective control over stores and inventory, to increase efficiency of the organization and to check wastage and losses. It facilitates delegation of responsibility for important tasks and rating of employees. For all these the management should be capable of using the information provided by cost accounts in a proper way. The various advantages derived by the management from a good system of costing are as follows:

- **Cost accounting helps in determining and enhancing efficiency**. Losses due to wastage of materials, idle time of workers, poor supervision etc will be disclosed if the various operations involved in the production are studied carefully. Efficiency can be measured, cost controlled and various steps can be taken to increase the efficiency.
- **Cost accounting helps in periods of trade depression and trade competition**. In periods of trade depression, the organization cannot afford to have wastages which pass unchecked. The

management must know areas where economies may be sought, waste eliminated and efficiency increased. The organization must wage a war not only for its survival but also continued growth. The management should know the actual cost of their products before embarking on any scheme of price reduction. Adequate system of costing facilitates this.

- **Cost accounting aids price fixation**. Although the law of supply and demand determines the price of the product, cost to the producer does play an important role. The producer can take necessary guidance from his costing records in case he is in a position to fix or change the price charged.
- **Cost accounting helps in making estimates**. Adequate costing records provide a reliable basis for making estimates and quoting tenders**.**
- **Cost accounting helps in channelizing production on right lines**. Proper costing information makes it possible for the management to distinguish between profitable and non-profitable activities; profits can be maximized by concentrating on profitable operations and eliminating non-profitable ones.[42]
- **Cost accounting helps in inventory control**. Cost accounting

[42] Steven A. Finkelr, *Essentials of Cost Accounting*, 2007 *available at* http://www.jblearning.com/samples/0763738131/38131_FMxx_Finkler.pdf.

furnishes control which management requires, in respect of stock of materials, work in progress and finished goods.

- **Cost accounting eliminates wastages**. As cost accounting is concerned with detailed breakup of costs, it is possible to check various forms of wastages or losses.
- **Cost accounting makes comparisons possible**. Proper maintenance of costing records provides various costing data for comparisons which in turn helps the management in formulating future lines of action.
- **Cost accounting provides data for periodical Profit and Loss Account**. Adequate costing records provide the management with such data as may be necessary for preparation of Profit and Loss Account and Balance Sheet at such intervals as may be desired by the management.[43]

2.8.2 DISADVANTAGES OF COST ACCOUNTING:

Like other branches of accounting, cost accounting is not an exact science but is an art which has developed through theories and accounting practices based on reasoning and common sense. These practices are not static but changing with time. Cost accounting lacks a uniform procedure.

[43] *Ibid.*

There is no stereotyped system of cost accounting applicable to all industries. There are widely recognised cost concepts but understood and applied differently by different industries. Cost accounting can be used only by big enterprises.

The limitations of cost accounting are as follows:

- It is expensive because analysis, allocation and absorption of overheads require considerable amount of additional work;
- The results shown by cost accounts differ from those shown by financial accounts. Preparation of reconciliation statements frequently is necessary to verify their accuracy. This leads to unnecessary increase in workload. It is unnecessary because it involves duplication of work. Some industrial units are functioning efficiently without any costing system.
- Costing system itself does not control costs. If the management is alert and efficient, it can control cost without the help of the cost accounting.[44] Therefore it is unnecessary.

[44] Michael Maher, *Solutions manual for cost accounting: Creating value for management*, 1997, *available at* http://www.indiastudychannel.com/attachments/experts/23073-30050-maher.pdf.

Chapter 3

RELATIONSHIP BETWEEN FINANCIAL ACCOUNTING AND COST ACCOUNTING

Chapter 3

RELATIONSHIP BETWEEN FINANCIAL ACCOUNTING AND COST ACCOUNTING

3.1 INTRODUCTION:

Both financial accounting and cost accounting are concerned with systematic recording and presentation of financial data. Financial accounting reveals profits and losses of the business as a whole during a particular period, while cost accounting shows, by analysis and localization, the unit costs and profits and losses of different product lines.[1]

Cost accounting is very closely-related to financial accounting. Some authorities on the subject consider cost accounting to be the branch of financial accounting.[2] But it may be said that cost accounts is complementary to financial accounts, *i.e.*, a subject which is necessary to make financial accounts whole or complete. Financial accounts and cost accounts are both similar in certain respects. But in some other respects they differ from one another.

3.2 SIMILARITIES OF FINANCIAL AND COST ACCOUNTING:

The following are the points of similarities between financial and cost

[1] J D Edwards World, *Product Costing and Manufacturing Accounting Guide*, 2006, available at http://docs.oracle.com/cd/E22655_01/JD_Edwards_World_Product_Costing_and_Manufacturing_Accounting_A91_Guide.pdf.

[2] Perspectives on Cost Accounting for Government: International Public Sector Study, 2000, *available at* http://www.fasab.gov/pdffiles/ifac_perspectives.pdf.

accounting:

- The results of business are revealed by both the systems of accounts;
- The fundamental principles of double entry is applicable in both the systems of accounts;
- Accuracy of accounts is maintained under both the systems by means of exercising check over errors and commissions which might creep in either of accounts;
- The causes for losses and wastages of a business are provided by both these systems of accounts;
- The invoices and vouchers constitute the common basis for recording transactions under both the systems of accounts.
- The determination of future business policy is guided by both these systems of accounts.
- A basis for comparison of expenses is being provided by both the accounting systems.[3]

3.3 DIFFERENCE BETWEEN FINANCIAL AND COST ACCOUNTING:

The basic difference between financial and cost accounting may be summarised as follows:

[3] International Good Practice Guidance, *Evaluating and Improving Costing in Organizations*, 2009, *available at* http://www.fasab.gov/pdffiles/ifac_eval_and_improv_costing.pdf.

- Financial accounts disclose the net profit and loss of the business as a whole, whereas cost accounts disclose profit or loss of each product, job or service. This enables the management to eliminate less profitable product lines and maximize the profits by concentrating on more profitable ones[4];
- Financial accounting emphasizes the measurement of profitability, while cost accounting aims at ascertainment of costs and accumulates data for this very purpose;
- Financial accounting aims at safeguarding the interests of the business and its proprietors and others connected with it. This is done by providing suitable information to various parties, such as shareholders or partners, present or prospective creditors, *etc*. Cost accounting on the other hand, renders information for the guidance of the management for proper planning, operation, control and decision making[5];
- The costs are reported in aggregate in financial accounts but costs are broken into unit basis in cost accounts;
- Financial accounts are kept in such a way as to meet the requirements

[4] William N. Lanen, Shannon W. Anderson & Michael W. Maher, *Fundamentals of Cost Accounting*, McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY, 2011, *available at* http://highered.mcgraw-hill.com/sites/dl/free/0073527114/781445/Preface_New.pdf.

[5] The institute of cost accountants of India, Cost *Accounting and Financial Management*, Kolkata: 2013, *available at* http://icmai.in/upload/students/syllabus-2012/study_material_new/intermediate-paper-8.pdf.

of the *Companies Act, Income Tax Act* and other Statues. On the other hand cost accounts are generally kept voluntarily to meet the requirements of the management. But now the *Companies Act* has made it obligatory to keep cost records in some manufacturing industries;

- Financial accounting provides operating results and financial position usually gives information through cost reports to the management as and when desired;
- In financial accounts stocks are valued at cost or market price whichever is less, whereas stocks are valued at cost price in cost accounts;
- Financial accounts deal mainly with actual facts and figures, but cost accounts deal partly with facts and figures, but cost accounts deal with facts and figures and partly with estimates;
- Financial accounts do not provide information on the relative efficiencies of various workers, plants and machinery while cost accounts provide valuable information on the relative efficiencies of various plants and machinery[6];
- In case of financial accounts stress is on the ascertainment and

[6] *Managerial Cost Accounting in the Federal Government: Providing Useful Information for Decision Making, 2009, available at,* http://www.fasab.gov/pdffiles/cpag22.pdf.

exhibition of profits earned or losses incurred in the business. On account of this reason in financial accounts, the transactions are recorded, classified and analyzed in a subjective manner i.e. according to the nature of expenditure. In cost accounts the emphasis is more on aspects of planning and control and therefore transactions are recorded in an objective manner;

- Financial accounts are concerned with external transactions i.e. transactions between the business concern on one side and third parties on the other. These transactions form the basis for payment or receipt of cash. While cost accounts are concerned with internal transactions which do not form the basis of payment or receipt of cash.[7]

3.4 TYPES, METHODS AND TECHNIQUES OF COSTING:

The general fundamental principles of ascertaining costs are the same in every system of cost accounting, but the methods of analysis and presenting the costs vary from industry to industry. Different methods are used because business enterprises vary in their nature and in the type of products or services they produce or render.

It is necessary therefore to understand the difference between the

[7] "In Pursuit of a Cutting Edge, 2009", *available at http://www.fasab.gov/pdffiles/cfo_com_article.pdf,*

costing methods and techniques. Costing methods are those which help a firm to compute the cost of production or services offered by it. On the other hand, costing techniques are those which help a firm to present the data in a particular manner so as to facilitate the decision making as well as cost control and cost reduction.[8]

3.4.1 METHODS OF COSTING:

Basically, the following are the principal methods of costing:

- **Job Costing:** This method is also called as job costing. This costing method is used in firms which work on the basis of job work. There are some manufacturing units which undertake job work and are called as job order units. The main feature of these organizations is that they produce according to the requirements and specifications of the consumers. Each job may be different from the other one. Production is only on specific order and there is no pre demand production. Because of this situation, it is necessary to compute the cost of each job and hence job costing system is used. In this system, each job is treated separately and a job cost sheet is prepared to find out the cost of the job.[9] The job cost sheet helps to compute the cost of

[8] *Statement of Federal Financial Accounting Standards 4: Managerial Cost Accounting Standards and Concepts*, 1995, *available at* http://www.fasab.gov/pdffiles/handbook_sffas_4.pdf.
[9] *Larry Caton, Cost Accounting Standards*, *available at*, http://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Downloads/cas.pdf,

the job in a phased manner and finally arrives the total cost of production. It refers to a system of costing in which costs are ascertained in terms of specific jobs or orders which are not comparable with each other. Industries where this method of costing is generally applied are Printing Process, Automobile Garages, Repair Shops, Shipbuilding, House building, Engine and Machine construction, *etc.*

- **Unit or single output costing**: This method is used where a single article is produced or service is rendered by continuous manufacturing activity. The cost of the whole production cycle is ascertained as a process or series of processes and the cost per unit is arrived at by dividing the total cost by the number of units produced. The unit of costing is chosen according to the nature of the product.[10] Cost statements or cost sheets are prepared under which various items of expenses are classified and the total expenditure is divided by total quantity produced in order to arrive at unit cost of production. This method is suitable in industries like brick-making, collieries, flour mills, cement manufacturing, etc. this method is useful for the assembly department in a factory producing a mechanical article *e.g.*,

[10] *Ibid.*

Bicycle.

- **Batch Costing:** This method is also a type of job costing. A batch of similar products is regarded as one job and the cost of this complete batch is ascertained. It is then used to determine the unit cost of the articles produced. It should, however, be noted that the articles produced should not lose their identity in manufacturing operations. This method of costing is used in those firms where production is made on continuous basis. Each unit coming out is uniform in all respects and production is made prior to the demand, *i.e.*, in anticipation of demand. One batch of production consists of the units produced from the time machinery is set to the time when it will be shut down for maintenance. For example, if production commences on 1st January 2007 and the machine is shut down for maintenance on 1st April 2007, the number of units produced in this period will be the size of one batch.[11] The total cost incurred during this period will be divided by the number of units produced and unit cost will be worked out. Firms producing consumer goods like television, air-conditioners, washing machines, *etc.*, use batch costing.

- **Process Costing:** Where a product passes through distinct stages or

[11] *Supra* note 2.

processes, the output of one process being the input of the subsequent process, it is frequently desired to ascertain the cost of each stage or process of production. This is known as process costing. This method is used where it is difficult to trace the item of prime cost to a particular order because its identity is lost in volume of continuous production. Process costing is generally adopted in textile industries, chemical industries, oil refineries, soap manufacturing, paper manufacturing, tanneries, *etc.* Some of the products like sugar, chemicals *etc* involve continuous production process and hence process costing method is used to work out the cost of production.[12] The meaning of continuous process is that the input introduced in the process I travels through continuous process before finished product is produced.[13] The output of process I becomes input of process II and the output of process II becomes input of the process III. If there is no additional process, the output of process III will be the finished product. In process costing, cost per process is worked out and per unit cost is worked out by dividing the total cost by the number of units. Industries like sugar, edible oil, chemicals are examples of

---

[12] *Michael W. Maher, William N. Lanen & Madhav V. Rajan Fundamentals of Cost Accounting*, 2006, *available at* http://novellaqalive2.mhhe.com/sites/dl/free/0073018376/230619/mah18376_fm.pdf.
[13] Timothy J. Fogarty and Saad A. Al-Kazemi, *Leadership in Accounting: The New Face of an Old Profession*, 2012, *available at* http://aaajournals.org/doi/abs/10.2308/apin-10073?journalCode=apin.

continuous production process and use process costing.[14]

- **Operating Costing:** This method is adopted when it is desired to ascertain the cost of carrying out an operation in a department, for example, welding. For large undertaking, it is frequently necessary to ascertain the cost of various operations. Moreover, this type of costing method is used in service sector to work out the cost of services offered to the consumers. For example, operating costing method is used in hospitals, power generating units, transportation sector, *etc.* A cost sheet is prepared to compute the total cost and it is divided by cost units for working out per unit cost.
- **Multiple or Complete Costing**: Some products are so complex that no single system of costing is applicable. It is used where there are a variety of components separately produced and subsequently assembled in a complex production. Total cost is ascertained by computing component costs which are collected by job or process costing and then aggregating the costs through use of the single or output costing system. This method is applicable to manufacturing concerns producing Motor Cars, Aeroplanes, Machine tools, Type-writers, Radios, Cycles, Sewing Machines, *etc.*

[14] *Ibid.*

- **Departmental Costing**: When costs are ascertained department by department, the method is called "Departmental Costing". Usually, for ascertaining the cost of various goods or services produced by the department, the total costs will have to be analysed, say, by the use of job costing or unit costing. In addition to the above methods of costing, mention can be made of the following techniques of costing which can be applied to any one of the above method of costing for special purposes of cost control and policy making: a) Standard or Predetermined Costs, b) Marginal Costs.
- **Contract Costing:** This method of costing is used in construction industry to work out the cost of contract undertaken. For example, cost of constructing a bridge, commercial complex, residential complex, highways etc is worked out by use of this method of costing. Contract costing is actually similar to job costing, the only difference being that in contract costing, one construction job may take several months or even years before they are complete while in job costing, each job may be of a short duration.[15] In contract costing, as each contract may take a long period for completion, the question of computing of profit is to be solved with the help of a well defined and

[15] International Federation of Accountants, *Professional Accountants in Business—At the Heart of Sustainability*? 2006, *available at* http://www.ifac.org/sites/default/files/publications/files/professional-accountants-in.pdf.

accepted method. Although contract costing does not differ in principle from job costing, it is convenient to treat contract cost accounts separately.[16] The term is usually applied to the costing method adopted where large scale contracts at different sites are carried out, as in the case of building construction.

- **Uniform Costing**: It is not a distinct method of costing by itself. It is the name given to a common system of costing followed by a number of firms in the same industry. This helps in comparing performance of one firm with that of another.[17]
- **Terminal Costing**: This method is also a type of job costing. This method emphasizes the essential nature of job costing, ie, the cost can be properly terminated at some point and related to a particular job.

3.4.2 TECHNIQUES OF COSTING:

Costing techniques generally help to present the data in a particular format so that decision making becomes easy. Costing techniques also help for controlling and reducing the costs. The following are the techniques of costing:

- **Marginal Costing:** This technique is based on the assumption that the

---

[16] Stephen A. Zeff, How the U.S. Accounting Profession Got Where It Is Today: Part I, *Accounting Horizons*, Vol. 17, No. 3, September 2003, *available at* http://www.ruf.rice.edu/~sazeff/PDF/Horizons,%20Part%20I%20%28print%29.pdf.

[17] Prof. M.L. Agarwal & Dr. K.L. Gupta, 2010, *Cost Accounting*, First Edition, Sahitya Bhawan Publication, p.29.

total cost of production can be divided into fixed and variable. Fixed costs remain same irrespective of the changes in the volume of production while the variable costs vary with the level of production, *i.e.*, they will increase if the production increases and decrease if the production decreases. Variable cost per unit always remains the same. In this technique, only variable costs are taken into account while calculating production cost. Fixed costs are not absorbed in the production units. They are written off to the Costing Profit and Loss Account. The reason behind this is that the fixed costs are period costs and hence should not be absorbed in the production.[18] Secondly, they are variable on per unit basis and hence there is no equitable basis for charging them to the products. These techniques is effectively used for decision making in the areas like make or buy decisions, optimizing of product mix, key factor analysis, fixation of selling price, accepting or rejecting an export offer, and several other areas.[19]

- **Standard Costing:** Standard costs are predetermined costs relating to material, labor and overheads. Though they are predetermined, they are worked out on scientific basis by conducting technical analysis.

[18] The institute of cost and works accountants of India, *Guidance note on cost accounting standard on material cost*, 2011, *available at* http://casbicwai.org/casb/docs/Guide_note_cas6.pdf.

[19] Cost and management accounting, 7th edition an introduction, 2011, *available at* http://www.cengagebrain.co.nz/content/9781408049044.pdf.

They are computed for all elements of costs such as material, labor and overheads. The main objective of fixation of standard cost is to have benchmark against which the actual performance can be compared. This means that the actual costs are compared with the standards. The difference is called as 'variance'. If actual costs are more than the standard, the variance is 'adverse' while if actual costs are less than the standard, the variance is 'favorable'. The adverse variances are analyzed and reasons for the same are found out. Favorable variances may also be analyzed to fi nd out the reasons behind the same. Standard costing thus is an important technique for cost control and reduction.

- **Budgets and Budgetary Control:** Budget and Budgetary Control is one of the important techniques of costing used for cost control and also for performance evaluation. The success of the technique depends upon several factors such as support from top management, involvement of employees and coordination within the organization.

3.5 FUNCTIONS OF COST ACCOUNTANTS:

The functions of cost accountant may be enumerated under the following:

3.5.1 TRADITIONAL FUNCTIONS:

The traditional functions comprise of the routine functions of cost accountant. Such functions are as follows:

- To provide necessary data to enable management in fixing the price
- To establish various cost centers in the organisation.
- To assist management in the valuation of closing stock of raw materials and work-in-progress so that too much of capital is not locked up in unnecessary inventories.
- To prepare reports on wastages of material, loss of labour time, idle capacity of machines so as to improve profitability of business.
- To ascertain the cost of every product, job or process both in terms of total and per unit of product.
- To design suitable system for defining responsibilities and controlling cost.
- To implement cost control techniques such as budgetary control and standard costing.
- To prepare periodical cost statements and profit and loss account.
- To prepare cost schedules to assist management in making decisions and in formulating policies.

- To design suitable forms for organising an effective system of reporting which ensures provision of adequate cost data to all levels of management.[20]

3.5.2 MODERN FUNCTIONS:

In recent times the functions of a cost accountant are not only confined to ascertain and control cost but extend far beyond these functions. This is on account of the additional responsibilities arising from the various branches of accounting, works organisation, office management and administration, methods of statistical analysis, systems analysis, O and M studies, modern principles of management, use of computers, *etc.* These modern functions are as follows:

- Supervising the functions of mechanised accounting.
- Organisation of internal audit in the field of accounting.
- To work in close co-ordination with various departmental managers so as to implement cost reduction programmes and methods of improvement.
- To undertake cost audit programmes as per the directives issued by the Government and the provisions of the *Indian Companies Act* of 1956.[21]

[20] The Institute of Company Secretaries of India, *Cost and Management Accounting*, New Delhi: 2013, available at http://gdi.ce.cmu.edu/gd/education/FCA_Module_98.pdf.

3.6 CRITICISMS LEVELLED AGAINST COST ACCOUNTS:

Despite several benefits offered by cost accounts, critics have levelled the following criticisms against it:

- **It is unnecessary:** This criticism is levelled owing to lack of understanding of the objectives and advantages of costing. In the present-day competitive world, every manufacturer must know the cost of production for each article so that he can fix selling price on a reliable and reasonable basis. Further he can also compare his selling price thus fixed with the price prevailing in the market. Cost ascertainment involves application of certain principles and techniques. Having ascertained the cost, control techniques are used to keep the costs under check and thereby increase the profit. Thus it can be said that cost accounting is necessary in most of the concerns**.**
- **Cost accounting is merely a system of estimates and probabilities :** Though the main purpose of cost accounting is to ascertain the cost of production with a reasonable degree of accuracy, yet absolute accuracy is not possible owing to the two reasons: a) Indirect expenditures are absorbed on the basis of predetermined rates instead

[21] As regards the role of cost accountant in an industry, in has been beautifully summarized by Mr. Wilmot in his article on "the cost accountant's place in management". According to him, the role of cost accountant is "that of a historian, news agent, and prophet". As historian he must be meticulously accurate, *i.e.*, while supplying cost information to management he has to furnish in greater detail with carefulness and exactness. As news agent, he must be up-do-date, selective and provide full cost information to the needy person. As a prophet he must combine knowledge and experience with foresight and courage.

of actual rates, and b) The material cost and labour cost is inflated so as to cover the normal loss and wastage of materials and normal idle time of workers.[22]

- **Cost accounting is unnecessary in such business enterprises which make large profit:** It is argued that industries which earn large amount of profit need not have a system of cost accounting. This statement is absolutely wrong. Earning of more profit by industry does not necessarily mean that its cost of production is lowest and there is no scope for further reduction in the cost. Profit represents the difference between the selling price and the cost of a product. Profit earned by a business may be high because of increased price prevailing in the market.[23] Two or more than two products manufactured by business may earn profit for one line of product and loss by other. The profit earned by one product may outweigh the loss suffered by other product thus resulting in overall profit. So it is wrong to judge the efficiency of the business on the basis of overall profitability of the business. If necessary steps are taken to reduce or eliminate losses suffered by a second line product, the industry would

[22] Accounting process and principles, financial, cost and management accounting, *http://www.mu.ac.in/myweb_test/MCA%20study%20material/MCA-Account-%20Pandit%28new%29%20-%20Sem%20-%20II.pdf.*

[23] Professor S. Roychowdhury, *Introduction to Cost Accounting*, Spring 2004, *available at* http://ocw.mit.edu/courses/sloan-school-of-management/15-501-introduction-to-financial-and-managerial-accounting-spring-2004/lecture-notes/lec19cost_acc.pdf.

earn more amount of profit. It is in this context that a system of costing is felt.

- **There is no need for costing where production efficiency is high:** The statement is misleading as without a yardstick to measure the efficiency it is not possible to appraise the efficiency of a business. Cost accounting system offers number of techniques such as standard costing, budgetary control, inter-firm comparison and so on. The cost of production can also be compared between two periods of time to know whether business is currently running efficiently when compared to previous year. In case of inefficient operation remedial measures can be taken to improve the business.[24]
- **It is expensive:** This criticism is true as long as the benefits derived from this system are not commensurate with the investment made on it. But by carefully designing the system so as to suit the business, the criticism can be nullified.[25]
- **Competition governs price and hence there is no need for costing system :** Some critics contend that in these days of competition prices are determined by the forces of demand and supply as against fixation

[24] Van Derbeck, *Principles of Cost Accounting*, 2013, *available at* http://www.mccc.edu/~horowitk/documents/VanDerbeck_ch01.pdf.
[25] Michael Maher, *Solutions manual for cost accounting: Creating value for management*, 1997, *available at* http://www.indiastudychannel.com/attachments/experts/23073-30050-maher.pdf.

of selling price by adding a desired margin of profit on the cost price. This argument is incorrect. Even in this situation cost accounts disclose the margin of profit that is earned by comparing the market price and cost of production. It impresses upon management the need to reduce cost by increasing the volume of production or by elimination of losses and wastages if any. If the cost price tend to be higher than the market price, it is desirable to abandon such product line and pay attention to profitable line of products.

- **Other objections :** Some other objections that are raised against the installation of cost accounting system are follows:
  a) *It is a mere matter of forms and rulings:* Often it is argued that the cost accounting system degenerates into a matter of mere forms and rulings. This is not the defect of cost accounting system but the way in which the system is maintained. No doubt different forms are necessary under costing system but they must be simplified and altered to meet the changing condition.
  b) *Failure in many cases:* The system of cost accounting is often condemned as defective inasmuch as it has failed to produce the desired result. The defect does not lie in the costing system but for some other reasons such as indifferent attitude of the management,

lack of adequate facilities, non-cooperations or opposition from employees. These defects can be overcome by reversing the above trend.

c) *For want of necessity:* It is contended by some that costing is of recent origin and that its application was not felt in the past. Though it was not used earlier, still many industries prospered. So it is felt by some critics that the installation of costing involves unnecessary expenditure. However it is to be remembered that today's business functions in a competitive conditions and every manufacturer must know the actual cost of production in order to reduce the selling price.[26] Many industrial failures in the past may be attributed to the lack of knowledge on the part of management relating to the actual cost of production thereby selling product below cost.

[26] Noellette Conway-Schempf, Full Cost Accounting: A Course Module on Incorporating Environmental and Social Costs into Traditional Business Accounting Systems,Carnegie Mellon University Pittsburgh, 2012, available at http://gdi.ce.cmu.edu/gd/education/FCA_Module_98.pdf.

Chapter 4

PROCESS COSTING AS A FORM OF COST ACCOUNTING

Chapter 4

PROCESS COSTING AS A FORM OF COST ACCOUNTING

4.1 INTRODUCTION:

Process costing is a form of operations costing in any organization which is used where standardized homogeneous commodities are produced. This costing method is used in industries like chemicals, textiles, steel, rubber, sugar, shoes, petrol, *etc*. Process costing is also used in the assembly type of industries also. It is assumed in process costing that the average cost presents the cost per unit.[1] Cost of production during a particular period is divided by the number of units produced during that period to arrive at the cost per unit.[2]

4.2 DEFINITION OF PROCESS COSTING:

Process costing is a method of costing under which all costs are accumulated for each stage of production or process and the cost per unit of product is ascertained at each stage of production by dividing the cost of each process by the normal output of that process.[3]

---

[1] Process costing, Relevant to foundations in accountancy paper from a management accounting, 2011, *available at* http://www.accaglobal.com/content/dam/acca/global/pdf/sa_june11_process2.pdf.
[2] "Job, Batch and Process Costing", *http://dosen.narotama.ac.id/wp-content/uploads/2013/02/Chapter-20-Job-Batch-and-Process-Costing.pdf,.*
[3] "Process Costing",
http://www.csb.uncw.edu/people /Classes/ACG471/LectureNotes/CH17%20Process%20Costing%20I.pdf ,

The Institute of Cost and Management Accountants of London defines process costing as "that form of operation costing which applies where standardize goods are produced".[4] It generally includes the following features: the production is continuous, the product is homogeneous, the process is standardized; output of one process become raw material of another process; the output of the last process is transferred to finished stock, costs are collected process-wise, both direct and indirect costs are accumulated in each process, if there is a stock of semi-finished goods, it is expressed in terms of equivalent units, and the total cost of each process is divided by the normal output of that process to find out cost per unit of that process.[5]

4.3 CHARACTERISTICS OF PROCESS COSTING:

The following are the characteristics of process costing:

- Production is continuous;
- Products pass through two or more distinct processes of completion
- Products are standardized and homogeneous;
- Products are not distinguishable in processing stage;
- The finished product of one process becomes the raw material of the subsequent process, and

[4] "Systems design: process costing", *http://dept.harpercollege.edu/tutoring/documents/ACC102-Chapter4new.pdf,*.

[5] Job order vs. process costing, *http://faculty.mdc.edu/jhortens/ACG%202071/transparenciesm02.pdf,*

- Cost of material, labour and overheads are collected for each process and charged accordingly.[6]

4.4 ADVANTAGES AND DISADVANTAGES OF PROCESS COSTING:

Process costing is generally easy to compute average cost because the products are homogeneous in Process Costing. It is possible to ascertain the process costs at short intervals and is simple and less expensive in relation o job costing.[7] By evaluating the performance of each process effective managerial control is possible in process costing. However, in process costing valuation of work in progress is difficult. It is not easy to value losses, wastes, scraps etc., and the apportionment of total cost among joint products and by-products is very difficult.[8] Process cost are not accurate, they are only average costs and are only historical.[9] Where different products arise in the same process and common costs are prorated to various costs units. Such individual products costs may be taken as only approximation and hence not reliable.[10]

4.5 PROCEDURE FOR PROCESS COSTING:

[6] "Process Costing", *http://novellaqalive2.mhhe.com/sites/dl/free/007000000x/216180/chap11.pdf,*
[7] "Process Costing and Control", *http://www.csulb.edu/~mconstas/acct310/notes/n04.pdf,*
[8] Dr Joyce L. Wang, "Process Costing", *http://www.hkiaat.org/images/uploads/articles/AAT_P3_Process_Costing_Joyce_Wang.pdf,.*
[9] Lesson: Process costing: Weighted Average vs. FIFO Method, *https://aaahq.org/southeast/2003/tips/SubID_079.pdf.*
[10] "Systems Design: Process Costing", *http://www.cob.sjsu.edu/buck_c/Homework%20Solutions/Chap4HomeworkSolutionsManagerial.pdf,*

a) Each process is separately identified. Separate process account is opened for each process.
b) Along with 'Particulars Column', two columns are provided on both sides of the process account – units (quantity) and amount (Rupees).
c) All the expenses are debited in the respective process account.
d) Wastage, sale of scrap, by-products etc are reordered on the credit side 0f the process account.
e) The difference between debit and credit side shows the cost of production and output of that particular process which is transferred to the next process.[11]
f) The cost per unit in every process is calculated by dividing the net cost by the output.
g) The output of last process is transferred to the Finished Stock Account.
h) Incomplete units at the end of the each period ion every process s converted in terms of completed units.[12]

The following is the specimen of Process Account when there are normal loss and abnormal losses:

[11] Coby Harmon, *Managerial Accounting: Tools for Business Decision Making*, *available at* http://www.mccc.edu/~horowitk/documents/Chapter03_002.pdf,
[12] "Process Costing", *http://highered.mcgraw-hill.com/sites/dl/free/0078111005/878687/Chapter04.pdf*,]; "Process Costing", *http://www.uic.edu/classes/actg/actg326rr/ExamReview/17review*,

Dr. **Process I A/c** **Cr.**

PARTICULARS	**UNITS**	**RS.**	**PARTICULARS**	**UNITS**	**RS.**
To Basic Material	XXX	XX	By Normal Loss	XX	XX
To Direct Material		XX	By Abnormal Loss	XX	XX
To Direct Wages		XX	By Process II A/c	XX	XX
To Direct Expenses		XX			
To Production Overheads		XX	(Output transferred to Next process)	XX	XX
To Cost of Rectification of Normal Defects		XX	By Process I Stock A/c.	XX	XX
To Abnormal Gains		XX			
	XXX	**XX**		**XX**	**XX**

Value of Abnormal Loss:

$$\frac{\text{Total Cost increase} - \text{Scrap Value of normal Loss}}{\text{Input units} - \text{Normal Loss Units}} \times \text{Units of abnormal loss}$$

Abnormal Gain:

Total Cost incurred – Scrap Value of Normal Loss x Abnormal Gain Unites

Input units – Normal Loss Units

4.6 SOLVED ILLUSTRATIONS:

ILLUSTRATION -1 (Normal Loss Process)

From the following figures, show the cost of three processes of manufacture. The production of each process is passed on to the next process immediately on completion.

	Process A	Process B	Process C
Wages and Materials	30400	12000	29250
Works Overhead	5600	5250	6000
Production in units	36000	37500	48000
Stock on 1 July 2012 (units from preceding process)		4000	16500
Stock on 31 July 2012 (units from preceding process)		1000	5500

Solution:

Process A A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**

To Wages and Materials	36000	30400	By Process B A/c (Transfer) Cost per unit 36000/36000 = 1	36000	36000
To Works Overhead		5600			
	36000	**36000**		**36000**	**36000**

Process B A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Opening Stock (Re.1 p.u)	4000	4000	By loss in weight (Bal. fig)	1500	
To Process A A/c (transfer)	36000	36000	By Closing stock @ Re.1	1000	1000
To Wages and Materials		12000	By Process C A/c (Transfer) Cost per unit 56250/37500 = 1.50	37500	56250
To Works Overhead		5250			
	40000	**57250**		**40000**	**57250**

Process C A/c					
Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Opening Stock (Rs.1.50 p.u)	16500	24750	By loss in weight (Bal. fig)	500	
To Process B A/c (transfer)	37500	56250	By Closing stock @ Rs. 1.5 p. u	5500	8250
To Wages and Materials		29250	By Finished stock A/c (Transfer) Cost per unit108000 = 2.25	48000	108000
To Works Overhead		6000			
	54000	**116250**		**54000**	**116250**

ILLUSTRATION – II (Normal / Abnormal Loss and Abnormal Gain)

The product of a company passes through 3 distinct process. The following information is obtained from the accounts for the month ending January 31, 2008.

Particulars	Process – A	Process – B	Process – C
Direct Material	7800	5940	8886
Direct Wages	6000	9000	12000
Production Overheads	6000	9000	12000

3000 units @ Rs. 3 each were introduced to process – I. There was no stock of materials or work in progress. The output of each process passes directly to the next process and finally to finished stock A/c. The following additional data is obtained:

Process	Output	Percentage of Normal Loss to Input	Value of Scrap per unit (Rs.)
Process – I	2850	5%	2
Process – II	2520	10 %	4
Process – III	2250	15 %	5

Prepare Process Cost Account, Normal Cost Account and Abnormal Gain or Loss Account.

Solution:

Dr. **Process – A A/c.** **Cr.**

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Units introduced	3000	9000	By Normal Loss A/c.	150	300
To Direct Material		7800	By Process – B A/c.	2850	28500
To Direct Wages		6000	(Units transferred @ Rs. 10/-)		
To Production Overheads		6000			
	3000	**28800**		**3000**	**28800**

Dr. **Process – B A/c.** **Cr.**

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**

To process I	2850	28500	By Normal Loss A/c.	285	1140
To Direct Material		5940	By Abnormal Loss A/c..	45	9000
To Direct Wages		9000	By Process – C A/c.	2520	50400
To Production Overheads		9000			
	2850	**52440**		**2850**	**52440**

Dr. **Process – C A/c.** **Cr.**

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To process II	2520	50400	By Normal Loss A/c.	378	1890
To Direct Material		8886	By Finished Stock A/c	2250	85500
To Direct Wages		12000	(Units transferred @ Rs. 10/-)		

To Production Overheads		12000			
To Abnormal Gain A/c	108	4104			
	2628	**87390**		**2628**	**87390**

Dr. **Abnormal Gain A/c.** **Cr.**

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Normal Loss A/c.	108	540	By Process – C A/c.	108	4104
To Costing P&L A/c.		3564	By Abnormal Loss A/c..	45	9000
	108	**4104**		**108**	**4104**

Dr. **Normal Loss A/c.** **Cr.**

Particulars	Units	Rs.	Particulars	Units	Rs.
To Process – A A/c.	150	300	By Bank A/c. (Sales)	-	-
To Process – B A/c.	285	1140	Process – A A/c.	150	300
To Process – C A/c.	378	1890	Process – B A/c.	285	1140
			Process – C A/c.	270	1350
			By Abnormal Gain A/c.	108	540
	813	**3330**		**813**	**3330**

ILLUSTRATION -1II (Inter Process Profits)

A product passes through three processes before its completion. The output of each process s charged to the next process at a price calculated to give a profit of 20% on transfer price. The output of Process III is transferred to finished stock account on a similar basis. There was no work-in-progress at the beginning of the years. Stock in each process has been valued at prime cost of the process. The following data is available at the end of 31st March, 2009.

Particulars	Process – I	Process – II	Process – III	Finished Stock Rs.
Direct Material	20000	30000	10000	-
Direct Wages	30000	20000	40000	-
Stock on 31st March 2009	10000	20000	30000	15000
Sale during the year	-	-	-	180000

From above information prepare:

a) Process Cost Account showing the profit at each stage;

b) Actual realized profit, and

c) Stock Valuation as would appear in the balance sheet.

Solution:

Dr. **Process – I A/c.** **Cr.**

Particulars	**Total Rs.**	**Cost Rs.**	**Profit Rs.**	**Particulars**	**Total Rs.**	**Cost Rs.**	**Profit Rs.**
To Materials	20000	20000	-	By Process II A/c. (Transfer)	50000	40000	10000
To Wages	30000	30000	-	-	-	-	-
Total	50000	50000	-	-	-	-	-
Less Closing Stock c/d	10000	10000	-				
Prime Cost	40000	40000	-				
Gross Profit 20%	10000	-	10000				
Transfer Price	50000	40000	10000		50000	40000	10000
To Stock B/d	**10000**	**10000**	**-**			-	**-**

Dr. **Process – II A/c.** **Cr.**

Particulars	Total Rs.	Cost Rs.	Profit Rs.	Particulars	Total Rs.	Cost Rs.	Profit Rs.
To Process-I A/c	50000	40000	10000	By Process III A/c. (Transfer)	100000	72000	28000
To Material	30000	30000					
To Wages	20000	20000	-	-	-	-	-
Total	100000	90000	10000	-	-	-	-
Less Closing Stock c/d	20000	18000	2000				
Prime Cost	80000	72000	8000				
Gross Profit 20%	20000	-	20000				
Transfer Price	100000	72000	28000		100000	72000	28000
To Stock B/d	**20000**	**18000**	**2000**			-	-

Dr. **Process – III A/c.** **Cr.**

Particulars	**Total Rs.**	**Cost Rs.**	**Profit Rs.**	**Particulars**	**Total Rs.**	**Cost Rs.**	**Profit Rs.**
To Process-II A/c	100000	72000	28000	By Finished Stock A/c.	150000	97600	52400
To Material	10000	10000					
To Wages	40000	40000	-	-	-	-	-
Total	150000	122000	28000	-	-	-	-
Less Closing Stock c/d	30000	24400	5600				
Gross Profit 20%	120000	97600	22400				
Transfer Price	30000	-	30000		100000	72000	28000
	150000	97600	52400		150000	97600	52400
To Stock B/d	**30000**	**24000**	**5600**		**-**	**-**	**-**

Dr. Finished Stock A/c. Cr.

Particulars	**Total Rs.**	**Cost Rs.**	**Profit Rs.**	**Particulars**	**Total Rs.**	**Cost Rs.**	**Profit Rs.**
To Process-III A/c	115000	97600	52400	By Sales A/c.	180000	87840	92160
Less Closing Stock c/d	15000	9760	5240				
Gross Profit 20%	135000	87840	92160				
	45000	-	45000		-	-	-
	180000	87840	92160		180000	87840	92160
To Stock A/c	**15000**	**9760**	**5240**		**-**	-	**-**

Calculation of profit on closing stock:

Profit included in stock = Profit included in transfer price x Value of stock/Transfer price

Process I = No profit

Process II =10000x20000/100000 = 2000

Process III =28000x30000/150000 = 5600

Finished Stock= 52400x15000/150000 = 5240

ILLUSTRATION -1V (Work-in-Progress)

During January 2000 units were introduced into Process I. the normal loss was estimated at 5% on input. At the end of the month, 1400 units had been produce and transferred to the next process, 460 units were uncompleted and 140 units had been scrapped. It was estimated that uncompleted units had reached a stage in production as follows:

Material 75% completed

Labour 50% completed

Overheads 50% completed

The cost of 20000 units was Rs.5800

Direct material introduced during the process Rs.1440

Direct wages Rs.3340

Production overheads incurred were Rs. 1670

Units scrapped realized Re.1 each.

Units scrapped passed through the process, so were 100% completed as regards material, labour and overhead. Find out Equivalent Production, Cost per unit and prepare the necessary accounts.

Solution:

Statement of Equivalent Production

Input	**Output**	**Units**	**Equivalent Production**

Units			Materials		Labour and Overhead	
			Units	%	Units	%
2000	Normal loss	100				
	Abnormal loss	40	40	100	40	100
	Finished production	1400	1400	100	1400	100
	Work in progress	460	345	75	230	50
2000		**2000**	**1785**		**1670**	

Statement of Cost

Elements of cost	**Cost (Rs.)**	**Equivalent Production (units)**	**Cost per completed unit**
Materials: Cost of units introduced	 5800 1440		

Direct Materials			
	7240		
Less: Scrap vale of normal loss	100		
	7140	1785	4
Direct wages	3340	1670	2
Overheads	1670	1670	1
Total	**12150**	**5125**	**7**

Statement of Evaluation

Production	Cost Elements	Equivalent Production	Cost per Unit	Cost	Total Cost
Abnormal Loss	Material	40	4	160	
	Labour	40	2	80	
	Overheads	40	1	40	280
Finished production	Material	1400	4	5600	
	Labour	1400	2	2800	
	Overheads	1400	1	1400	9800
Work-in-	Material	345	4	1380	

progress					
	Labour	230	2	460	
	Overheads	230	1	230	2070
					12150

Process I A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Units introduced	2000	5800	By Normal loss	100	100
To Materials		1440	By abnormal loss	40	280
To Labour		3340	By Finished production		9800
To Overhead		1670	By Balance c/d	1400	
			(Work-in-progress)	460	2070
	2000	**12250**		**2000**	**12250**

Finished Production A/c

Particulars	Units	Rs.	Particulars	Units	Rs.
To Process I A/c	1400	9800			

Abnormal Loss A/c

Particulars	Units	Rs.	Particulars	Units	Rs.
To Process I A/c	40	280	By Cash (sale @ Re.1 p.u)	40	40
			By Costing P&L A/c (loss)		240
	40	**280**		**40**	**280**

ILLUSTRATION V (Work-in-Progress - FIFO method)

Following data are relating Process A for March 2012.

Opening WIP – 1500 units for Rs.15000

Degree of completion:

Materials 100%, Labour and overheads 33 1/3%

Input of materials 18500 units at Rs.52000

Direct labour Rs. 14000

Overheads Rs. 28000

Closing WIP - 5000 units.

Degree of completion: Materials 90% and labour and overheads 30%.

Norma process loss is 10% of total input (opening WIP units + units put in)

Scrap value Rs. 2 per unit.

Unit transferred to the next process 15000 units.

Compute equivalent units of production, cost per equivalent unit for each cost element and cost of finished output and closing WIP. Also prepare Process and other accounts. Assume that FIFO method is used by the company and the cost of opening WIP is fully transferred to the next process.

Solution:

Statement of Equivalent Production and Cost

Input Units	**Output**	**Units**	**Equivalent Production**					
			Materials		**Labour**		**Overhead**	
			Units	%	Units	%	Units	%
1500	Opening WIP transfer	1500			1000	66 2/3	1000	66
18500	Normal	2000						66 2/3

	loss							
	Finished goods	13500	13500	100	13500	100	13500	
	Closing WIP	5000	4500	90	1500	30	1500	100
20000		22000	18000		16000		16000	
	Less: Abnormal gain	2000	2000	100	2000	100	2000	
		20000	16000		14000		14000	
		52000						
	Materials less: scrap value	4000	48000		14000		28000	
	Cost per equivalent unit		**Rs.3**		**Rs.1**		**Rs.2**	

Statement of Evaluation

Opening Work-in-progress	Material			
	Labour	1000x1	1000	80
	Overheads	1000x2	2000	3000
Finished production		13500x6		81000
Abnormal gain		2000x6		12000
Closing WIP	Materials	4500x3	13500	
	Labour	1500x1	1500	
	Overheads	1500x2	3000	18000

Process I A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Opening WIP	1500	15000	By normal loss	2000	4000
To Materials	18500	52000	By Finished stock (18000+81000)		99000
To Labour		14000			

To Overhead		28000	By Closing WIP	15000	18000
To Abnormal gain	2000	12000		5000	
	22000	**121000**		**22000**	**121000**

Normal loss A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Process I	2000	4000	By Abnormal Gain	2000	4000

Abnormal Loss A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Normal loss (loss of income)	2000	4000	By Process I A/c	2000	4000
To Costing P&L A/c		8000			

(Bal.)					
	2000	**12000**		**2000**	**12000**

ILLUSTRATION - VI (**Work in progress but with no process loss**)

From the following details, prepare statement of equivalent production, statement of cost, statement of evaluation and process A/c by following FIFO method.

Opening work-in-progress (2000 units)

Materials (100% complete) Rs. 5000

Labour (60% complete) Rs. 3000

Overheads (60% complete) Rs. 1500

Units introduced into the process Rs. 8000

There are 2000 units in progress and the stage of completion is estimated to be:

Materials 100%

Labour 50%

Overheads 50%

8000 units are transferred to the next process:

The process costs for the period are:

Materials Rs.96000

Labour Rs. 54600

Overheads Rs. 31200

Solution:

Statement of Equivalent Production

Output	**Units**	**Equivalent Production**			
		Materials		**Labour and Overhead**	
		Units	%	Units	%
Opening WIP	2000			800	40
Completed processed during the period (8000-2000)	6000	6000	10	6000	100
Closing WIP	2000	2000	0	1000	50
Total	**10000**	**8000**		**7800**	

Statement of Cost

Elements of cost	**Cost (Rs.)**	**Equivalent Production (units)**	**Cost per completed unit**

Materials:	96000	8000	12
Labour	54600	7800	7
Overheads	31200	7800	4
Total	**181800**		**23**

Statement of Evaluation

Opening Work-in-progress	Material			
	Labour	800x7	5600	
	Overheads	800x4	3200	8800
Closing WIP	Materials	2000x12	24000	
	Labour	1000x7	7000	
	Overheads	1000x4	4000	35000
Units completely processed				

during the period 6000@23				138000
				181800

Process A/c

Particulars	**Units**	**Rs.**	**Particulars**	**Units**	**Rs.**
To Opening WIP	2000	9500	By Finished stock transferred to next process (9500+8800+138000)	8000	156300
To Materials	8000	96000			
To Labour		54600			
To Overhead		31200	By Closing WIP	2000	35000
	10000	**191300**		**10000**	**191300**

Chapter 5

CONCLUSIONS AND SUGGESTIONS

Chapter 5

CONCLUSIONS AND SUGGESTIONS

5.1 CONCLUSIONS:

Cost Accounting in the modern times is key to economy in manufacturing and is indispensable to the intelligent and economical management of the factory. Thus, it has become on essential tool of management.

Cost is a measurement in monetary terms of the amount of resources used for the purpose. Thus the cost can be regarded as the price paid for attaining the objects. The objects may be a product, a service or any activity. For proper planning, decision making, stock valuation, profit measurement and control in business cost should be computed, classified and grouped according to their general characteristics.

Labour is the second major element of cost which converts the raw materials into finished products. The remuneration payable to direct labour is known as direct wages and the labour which acts as ancillary to the direct labour which is used in completing the production. Each concern should constantly strive to raise the productivity of labour and the efforts for the control of labour cost should begin from the very beginning. The various schemes are introduced which depends upon nature of work and circumstances of each industry.

Another important feature is overhead costs. Overhead cost refers to the cost which cannot be wholly debited directly to a particular job, or work orders. It includes cost of indirect material, indirect labour and indirect expenses. This cost is also termed as supplementary cost. Overheads may be classified according to their nature, normalcy, variability, controllability and functions. The functional classification is the conventional method of classifying overheads in order to calculate the cost of each main function with the ultimate objective of controlling the costs, therefore allotment, apportionment and absorption is normally done on this basis.

5.2 SUGGESTIONS:

To improve cost accounting process in any undertaking, the researcher will like to suggest the following:

- Firms needs to introduce latest technology: Selection of accounting software for instance is, without question, one of the most important decisions the company has to make for the business. Program like Quickbooks can be introduced in the company. It isn’t enough to simply purchase accounting software; an organization has to make use of it. Reducing the likelihood for human error in bookkeeping is one of the best ways to ensure that cost accounting records stay accurate. By learning how to use the full scope of features in accounting software, one can automate tasks, double-check work and make general accounting chores significantly less frustrating.

- Understand the cost accounting basics. New entrepreneurs routinely underestimate how critically important sound accounting practices are to the viability of a business. This needs to be looked into carefully
- Staying organized in the firm is another crucial point. Accurate record keeping is the proverbial glue that holds business together. Records that are improperly updated could lead to disaster.
- Consistency is quite essential in cost accounting. Fortunately, being consistent doesn't require much more than establishing sound practices and a strict adherence to them over the long haul. It only needs practice.

BIBLIOGRAPHY

- "Dictionary.com", *http://dictionary.reference.com/browse/hypothesis*.
- "Hypothesis", *http://people.du.ac.in/~pkdas/RM/rm-3.pdf*.
- "In Pursuit of a Cutting Edge, 2009", *available at http://www.fasab.gov/pdffiles/cfo_com_article.pdf*.
- "Introduction to Cost Accounting", *http://www.flexstudy.com/catalog/schpdf.cfm?coursenum=9623a*.
- "Job, Batch and Process Costing", *http://dosen.narotama.ac.id/wp-content/uploads/2013/02/Chapter-20-Job-Batch-and-Process-Costing.pdf*.
- "Process Costing and Control", *http://www.csulb.edu/~mconstas/acct310/notes/n04.pdf*.
- "Process Costing", *http://highered.mcgraw-hill.com/sites/dl/free/0078111005/878687/Chapter04.pdf*.
- "Process Costing", *http://www.uic.edu/classes/actg/actg326rr/ExamReview/17review*.
- "Process Costing", *http://novellaqalive2.mhhe.com/sites/dl/free/007000000x/216180/chap11.pdf*.
- "Process Costing",

http://www.csb.uncw.edu/people/sawyer/Classes/ACG471/LectureNotes/CH17%20Process%20Costing%20I.pdf.

- "Systems Design: Process Costing", *http://www.cob.sjsu.edu/buck_c/Homework%20Solutions/Chap4HomeworkSolutionsManagerial.pdf.*
- "Writing a Literature Review", *http://www.csu.edu.au/__data/assets/pdf_file/0005/82796/LitReview.pdf*Clare & Hamilton, *Writing Research* 8, (2003).
- Aveyard, Helen, *Doing a Literature Review in Health and Social Care: A Practical Guide, 2nd edn.*, (Berkshire, Great Britain: Open University Press, 2010).
- Accounting process and principles, financial, cost and management accounting, *http://www.mu.ac.in/myweb_test/MCA%20study%20material/MCA-Account-%20Pandit%28new%29%20-%20Sem%20-%20II.pdf.*
- Agrawal, Shah, Mendiratta, Agarwal Sharma Tailor, *Cost and Management Accounting*, New Delhi: Malik and Co., 1999.
- Bhar B.K., *Cost accounting*, Academic publications, 2009.
- Coby Harmon, *Managerial Accounting: Tools for Business Decision Making*, *available at*

http://www.mccc.edu/~horowitk/documents/Chapter03_002.pdf,

- Cost and management accounting, 7th edition an introduction, 2011, *available at* http://www.cengagebrain.co.nz/content/9781408049044.pdf.
- Cottrell, R. R., & McKenzie, J. F., *Health Promotion and Education Research Methods: Using the Five Chapter Thesis/Dissertation Model*, 2nd ed., (Boston, MA: Jones & Bartlett Publishers, Inc., 2011).
- D. M. Wilson, 2009, *Cost Accounting*, First Edition, Himalaya Publication House.
- Dr Joyce L. Wang, "Process Costing", *http://www.hkiaat.org/images/uploads/articles/AAT_P3_Process_Costing_Joyce_Wang.pdf*.
- Dr. M. N. Arora, 2009, *Theory & Practices of Cost*, First Edition, Himalaya Publication House.
- Dutta, *Cost Accounting*, Hippa Pvt Ltd., 2005.
- Ghosh,P.K., *Cost Accounting*, National Publishing House, New Delhi, 2010.
- Gopalakishanan.P., *Purchasing and Material Management*, Tata McGraw-Hill Education pvt Ltd, 2007.

- Greg Navarro, *The Accounting Profession Redefined: Setting Standards for Good Governance*, 2005, *available at* http://xsite.dlsu.edu.ph/research/centers/cberd/conferences/accounting.pdf.
- Hassan Ibrahim Rkein, *Obstacles to Accounting: The Mathematics Factor*, *available at* http://www.wbiconpro.com/104-Hassan.pdf.
- Hassan Ibrahim Rkein, *Obstacles to Accounting: The Mathematics Factor*, *available at* http://www.wbiconpro.com/104-Hassan.pdf.
- Helen Brand, *Closing the value gap: understanding the accountancy profession in the 21st century*, 2012, *available at* http://www.accaglobal.com/content/dam/acca/global/PDF-technical/human-capital/tech-tp-ctvg.pdf.
- Horngren.T.chareles, Datar.M.Srikant *Cost Accounting a Managerial Emphasis,* Pearson, 1999.
- Institute of Cost and Works Accountants of India, *Management Accounting*, 2013, *available at* http://cga.nic.in/writereaddata/management_accounting.pdf.
- International Federation of Accountants, *Professional Accountants in Business—At the Heart of Sustainability*? 2006, *available at*

http://www.ifac.org/sites/default/files/publications/files/professional-accountants-in.pdf.

- International Good Practice Guidance, *Evaluating and Improving Costing in Organizations*, 2009, *available at* http://www.fasab.gov/pdffiles/ifac_eval_and_improv_costing.pdf.
- J D Edwards World, *Product Costing and Manufacturing Accounting Guide*, 2006, available at http://docs.oracle.com/cd/E22655_01/JD_Edwards_World_Product_Costing_and_Manufacturing_Accounting_A91_Guide.pdf.
- Jain & Narang, *Cost Accounting*, Kalyani Publications, New Delhi, 2001.
- Jain Khandelwal Pareek, *Cost Accounting*, Ajmera Book depot, Jaipur, 2005.
- *Cost Accounting: Core Course*, University of Calicut, School of Distance Education.
- Jain, Khandelwal, Pareek, *Cost Accounting* (Ajmera Book depot, Jaipur), 2007.
- Job order vs. process costing, *http://faculty.mdc.edu/jhortens/ACG%202071/transparenciesm02.pdf*.

- Khan and Jain, *Management Accounting*, Calicut: S. Chand & Sons, 2004; I. M. Pandey, *Management Accounting*, New Delhi: S. Chand & Sons, 2007.
- *Larry Caton, Cost Accounting Standards, available at*, http://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Downloads/cas.pdf.
- Lesson: Process costing: Weighted Average vs. FIFO Method, *https://aaahq.org/southeast/2003/tips/SubID_079.pdf*.
- M.R. Agarwal, *Managerial Accounting*, Bombay: Garima Publications, 2003.
- Maheshwari, Mittal, *Cost Accounting and Financial Management*, Shri Mahaveer Book Depot, Delhi, 1999.
- *Managerial Cost Accounting in the Federal Government: Providing Useful Information for Decision Making, 2009, available at*, http://www.fasab.gov/pdffiles/cpag22.pdf.
- Michael Maher, *Solutions manual for cost accounting: Creating value for management*, 1997, *available at* http://www.indiastudychannel.com/attachments/experts/23073-30050-maher.pdf.

- *Michael W. Maher, William N. Lanen & Madhav V. Rajan Fundamentals of Cost Accounting*, 2006, *available at* http://novellaqalive2.mhhe.com/sites/dl/free/0073018376/230619/mah18376_fm.pdf.
- Noellette Conway-Schempf, Full Cost Accounting: A Course Module on Incorporating Environmental and Social Costs into Traditional Business Accounting Systems,Carnegie Mellon University.
- Oswal Maheshwari Modi, *Cost Accounting*, RBD, Jaipur, 2005.
- P.C. Tulsian, 2006, *Cost Accounting*, First edition, TMH.
- P.E. Bailey, *Full Cost Accounting for Life Cycle Costs - A Guide for Engineers and Financial Analysts, Environmental Finance*, 13-29, Spring, 1991.
- Perspectives on Cost Accounting for Government: International Public Sector Study, 2000, *available at* http://www.fasab.gov/pdffiles/ifac_perspectives.pdf.
- Pittsburgh, 2012, available at http://gdi.ce.cmu.edu/gd/education/FCA_Module_98.pdf.
- Process costing, Relevant to foundations in accountancy paper from a management accounting, 2011, available at

http://www.accaglobal.com/content/dam/acca/global/pdf/sa_june11_process2.pdf.

- Prof. M.L. Agarwal & Dr. K.L. Gupta, 2010, *Cost Accounting*, First Edition, Sahitya Bhawan Publication.
- Professor S. Roychowdhury, *Introduction To Cost Accounting*, Spring 2004, available at http://ocw.mit.edu/courses/sloan-school-of-management/15-501-introduction-to-financial-and-managerial-accounting-spring-2004/lecture-notes/lec19cost_acc.pdf.
- Ravi. M. Kishore, '*Cost Accounting'*, Taxmann Publication, New Delhi, 2004.
- Severin Grabski, Stewart Leech & Alan Sangster, *Management: A profession dramatically changed by erp systems*, vol 4, issue 5, *available at* http://www.cimaglobal.com/documents/thought_leadership_docs/cid_ressum_management_accountants_and_erp_dec08.pdf.
- *Statement of Federal Financial Accounting Standards 4: Managerial Cost Accounting Standards and Concepts*, 1995, *available at* http://www.fasab.gov/pdffiles/handbook_sffas_4.pdf.

- Stephen A. Zeff, How the U.S. Accounting Profession Got Where It Is Today: Part I, *Accounting Horizons,* Vol. 17, No. 3, September 2003, *available at* http://www.ruf.rice.edu/~sazeff/PDF/Horizons,%20Part%20I%20%28print%29.pdf.
- Steven A. Finkelr, *Essentials of Cost Accounting*, 2007 *available at* http://www.jblearning.com/samples/0763738131/38131_FMxx_Finkler.pdf.
- The Institute of Company Secretaries of India, *Cost and Management Accounting*, New Delhi: 2013, *available at* http://gdi.ce.cmu.edu/gd/education/FCA_Module_98.pdf.
- The institute of cost accountants of India, Cost *Accounting and Financial Management,* Kolkata: 2013, *available at* http://icmai.in/upload/students/syllabus-2012/study_material_new/intermediate-paper-8.pdf.
- The institute of cost and works accountants of India, *Guidance note on cost accounting standard on material cost*, 2011, *available at* http://casbicwai.org/casb/docs/Guide_note_cas6.pdf.

- The institute of cost and works accountants of India, *Guidance note on cost accounting standard on material cost*, 2011, *available at* http://casbicwai.org/casb/docs/Guide_note_cas6.pdf.
- Fogarty Hin (*2011*) Leadership in Accounting: The New Face of an Old Profession. Accounting and the Public Interest: December 2011, Vol. 11, No. 1, pp. 16-31.
- Timothy J. Fogarty and Saad A. Al-Kazemi, *Leadership in Accounting: The New Face of an Old Profession*, 2012, *available at* http://aaajournals.org/doi/abs/10.2308/apin-10073?journalCode=apin.
- Van Derbeck, *Principles of Cost Accounting*, 2013, *available at* http://www.mccc.edu/~horowitk/documents/VanDerbeck_ch01.pdf.
- William N. Lanen, Shannon W. Anderson & Michael W. Maher, *Fundamentals of Cost Accounting*, McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY, 2011, *available at* http://highered.mcgraw-hill.com/sites/dl/free/0073527114/781445/Preface_New.pdf.