

**COST STRUCTURE ANALYSIS OF
SALT TRADING CORPORATION LIMITED**



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This is to certify that the thesis

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has been prepared and approved by this department in the prescribed format of the faculty of management. This thesis is forwarded for examination.

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DECLARATION

I here by declare that the work report in thesis entitled, **Cost Structure Analysis of Salt Trading Corporation Limited**, submitted to Central Department of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master's of Business Studies (M.B.S.) under the supervision of Prof. Dr. Bal Krishna Shrestha, Central Department of Management.

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TABLE OF CONTENTS

	Page No.
Recommendation	
Viva-voce Sheet	
Declaration	
Acknowledgement	
Table of Contents	
List of Tables	
List of Diagrams and Graphs	
Abbreviation	
CHAPTER I: INTRODUCTION	1-14
1.1 Concept of Cost	1
1.2 Cost Accountancy	3
1.3 Cost Accounting	4
1.4 An overview of Nepalese Industrial Development	7
1.5 Salt Trading Corporation Limited	10
1.6 Statement of the Problem	12
1.7 Objectives of the Study	12
1.8 Limitation of the Study	13
1.9 Organization of the Study	13
1.10 Significance of the Study	14
CHAPTER II: THEORETICAL FREAMEWORK AND REVIEW OF LITERATURE	15-50
2.1 Theoretical Framework	15
2.1.1 Cost Accounting	15
2.1.2 Cost Accounting and Management	20
2.1.3 Cost Accounting and Management Accounting	21
2.1.4 Cost	22
2.1.5 Element of Cost	25
2.1.6 Classification of Cost	27
2.1.7 Cost Volume Profit Analysis	43
2.1.8 Break Even Analysis	45
2.2 Review of Literature	47
2.3 Research Gap	50

CHAPTER III: RESEARCH METHODOLOGY	51-57
3.1 Introduction	51
3.2 Research Design	51
3.3 Nature and Sources of Data	52
3.4 Statistical Tools	52
 CHAPTER IV: PRESENTATION AND ANALYSIS OF DATA	 58-89
4.1 Introduction	58
4.2 Cost Structure of STC	58
4.3 Classification of Cost	59
4.3.1 According to Element Wise	59
4.3.2 According to Variability	61
4.3.3 According to Function	63
4.4 Cost Trend of STC	65
4.4.1 Element wise Cost Trend	65
4.4.2 Variable wise Cost Trend	67
4.5 Cost Analysis on the Basic of Ratios	69
4.5.1 Cost to Sales Ratio of STC	69
4.5.2 Cost to Profit Ratios of STC.	73
4.6 Inter-Relationship of Cost, Volume and Profits	76
4.7 Arithmetic Mean, Standard Deviation and Coefficient of Variation.	78
4.8 Correlation	80
4.8.1 Correlation Coefficient of Element wise cost Structure	80
4.8.2 Correlation of Function wise Cost Structure	82
4.8.3 Correlation of Variable wise Cost Structure	84
4.9 Regression Analysis of Cost Structure of STC	84
4.9.1 Regression Equation of Element wise Cost Structure	84
4.9.2 Regression Equation of Variable Wise Cost Structure	85
4.9.3 Regression Equations of Function wise Cost Structure.	85
4.10 Computation of Regression Equation of Cost and Profit	86
4.11 Major Findings	86
 CHAPTER V: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	 90-93
5.1 Summary	90
5.2 Conclusion	91
5.3 Recommendations	93

BIBLIOGRAPHY

APPENDIX

LIST OF TABLES

Table		Page
1.	Element wise cost	60
2.	Variable wise Cost	62
3.	Function wise Cost	64
4.	Element wise Cost, its Index and ARPC of STC	65
5.	Variable wise, its Index and ARPC of STC	67
6.	Function wise Cost, its index and ARPC of STC	68
7.	Element wise Cost to Sales Ratio	70
8.	Variable wise Cost to Sales Ratio	71
9.	Function wise Cost to Sales Ratio.	72
10.	Element wise Cost to Profit Ratios.	73
11.	Variable wise Cost to Profit Ratios.	74
12.	Function wise Cost to Profit Ratio.	75
13.	Arithmetic Mean, Standard Deviation and Coefficient of Variation.	79
14.	Correlation	80
15.	Correlation of Function wise Cost Structure	82

LIST OF FIGURES

Figure		Page
1.	Element wise cost	60
2.	Variable Wise Cost	60
3.	Function wise Cost	64

ABBREVIATION

ARPC	Annual Rate of Percentage Change
BEP	Break Even Point
CM	Contribution Margin
Co.	Company
Corp.	Corporation
CV	Coefficient of Variation
CVP	Cost Volume Profit
FC	Fixed Cost
FY	Fiscal Year
Ltd.	Limited
Mfg.	Manufacturing
Mgmt.	Management
PEs	Public Enterprises
P/L	Profit and Loss
P/v Ratio	Profit volume Ratio
SD	Standard Deviation
S & D	Selling and Distribution
STC	Salt Trading Corporation
VC	Variable Cost

CHAPTER I

INTRODUCTION

1.1 Concept of Cost

Every business organization is established to earn profit by providing goods and services to the customers. Now-a-days customer satisfaction is becoming their final goal. To make profit, organizations have two alternatives. Firstly, by increasing sales price, secondly by reducing different costs. The second alternative is seen more effective from the long term point of view. Business organizations established in developing countries are suffered from huge loss due to unable to reduce these costs.

Generally cost mean money paid in exchange of anything. Cost is the amount of resources gives up generally in terms of money or if not in terms of money; they are always expressed in monetary terms. The terms 'cost' itself without any significant meaning and therefore it is always advisable to use it with an adjectives or phrase that will convey the meaning intended, such as prime, direct, indirect, fixed, variable, controllable, opportunity, sunk, differential, marginal,, replacement and the like. Each such description implies certain attribute or characteristic which is important in computing measuring and analyzing the cost.

Basically, when a cost is incurred, it could be in the form of deferred cost or expired cost. Deferred costs are unexpired costs, capitalized costs, which provide benefits in the periods and known as assets and hence appear on the balance sheet. Examples of deferred cost are plant, equipment, building, inventory, prepaid rent and prepaid

insurance. When these deferred cost are used up, to the extent used they become expenses are expired costs, incurred and totally used up in generation of revenue e.g. cost of goods sold expenses, selling and administrative expenses, selling and administrative expenses. Expenses need not necessarily have to be paid in cash immediately even a promise to pay could be made for the benefit obtained.

Loss: Loss is the lost cost. The term 'loss' is used to describe mainly two accounting events. In traditional financial accounting, it is used to denote a situation where expenses exceed revenues of an accounting period, that is, the opposite of the net income for the accounting period.

Secondly, a loss arises due to the cost of an asset being more than the sale proceeds when the asset is sold. This unfavorable event does not arise from a normal business activity but from non-operating transactions or events. This definition of loss is used to identify the opposite of gain. That is no benefit is received from the cost incurred or it becomes definite that no benefit will accrue, the cost becomes a lost cost i.e. loss.

Thus cost is that which is given or sacrificed to obtain something. The cost of an article consists of actual outgoings or ascertained charges incurred in its production and sale. Cost is a generic term and sale. Cost is a generic term and it is always advisable to qualify the word cost to show exactly what it means e.g. prime cost, factory cost; sunk cost etc. a cost must always be studied with reference to its purpose and conditions. Different costs may be ascertained for different purpose and under different conditions.

For the valuation of work in process, factory cost is used but for the valuation of finished goods, cost of production is used.

According to Wim Haorper, "A cost is the value of economic resources used as a result of producing or doing the costed."

Chartered Institute of Management Accountants defines "Cost as the amount of expenditure (actual or notional) incurred on or attributable to a given thing."

The committee on cost concept and standards of the American Accounting Association wrote: "cost is fore going, measured in monetary terms incurred or potentially to be incurred to achieve a specific objective."

Frequently the term 'cost' is used synonymously with the term 'expense'. Yet the term 'cost' is used for both assets and expenses. Cost means, of one time, the amount paid for something at another time, the fair market value of the item give in exchange for the item received. The term 'exchange for the item received. The term 'expense' refers to the sacrifice, the renouncing aspect of the goods and services that are matched with revenue to determine income.

1.2 Cost Accountancy

Cost accounting has been differentiated form cost accountancy. The institute of cost and Management Accounts, London had defined cost accountancy is the "application of costing and cost accounting principles, methods and techniques to the science, art and practices of cost control and ascertainment of profitability as well as presentation of information for the purpose of managerial decision making."

According to this definition the terms "cost accountancy includes costing, cost accounting, budgetary control, cost control and cost audit. Although literature in U.K. and Europe in the area of cost accounting, U.S. literature does not appear to point out any basic difference between these two terms.

Thus, cost accountancy is the science, art and practice of a cost accountant. It is science because it is a body of systematic knowledge having certain principles which a cost accountant should possess for proper discharge of his responsibilities. It is an art as it requires the ability and skill with which a cost accountant is able to apply the principles of cost accountancy to various managerial problems. Practice includes the continuous effort of a cost accountant in the field of cost accountancy. Such efforts also include the presentation of information for the purpose of managerial decision making and keeping statistical records.

1.3 Cost Accounting

Cost accounting is a subset of managerial accounting that relates primarily to the accumulation and determination of product process or service costs for the primary purpose of income measurement and inventory valuation in accordance with generally accepted accounting principles for external financial reporting. The costing systems used to accumulate, assign and report. These costs must be flexible enough to provide answers for internal questions of planning and control. What does it cost? May be the single most important question addressed by an organization because accurate cost information is necessary to guide the manager in pricing decisions, evaluating productivity and efficiency,

developing operating budgets, determining if component product parts will be manufactured internally or out sourced analyzed whether production technology will replace human effort and appraising performance.

Cost accounting also plays a very important role in financial accounting for the manufacturing organization. The fundamental focus of financial accounting is external to the organization; providing information to stockholders, creditors the government and others about the financial position of the organization and the results of its operations in accordance with generally accepted accounting principles.

Cost accounting is a quantitative method that accumulates, classifies, summaries and interprets information for three major purposes viz product or service costing, operational planning and control and non routine decisions. It now refers to the gathering and providing of information for decision needs of all sorts. Today cost accounting is generally indistinguishable from management accounting. In this content, a reference to the current official terminology of the institute of cost and management account may be made. It defines cost accounting which establishes, budgets and standard costs and actual costs of operation, process department or product and the analysis of variances. Profitability or social use of funds."

Some concepts which are used in cost accounting are discussed below:

i) Cost: Cost is measurement in monetary terms of the amount of resources used for some purposes. It has been defined by the committee on cost terminology of the American Accounting Association as "the

foregoing in monetary terms, incurred or potentially to be incurred in the realization of the objective of management which may be manufacturing of a product or rendering of a services."

Cost in simple words means the total of all expense; cost is defined as the amount of expenditure incurred on or attributable to a given thing or to ascertain the cost of given thing. Thus it is that which is given or is sacrificed to obtain something. The cost of an article consists of actual outgoings or ascertained charges incurred in its production and sale. Cost is a generic term and it is always advisable to qualify the word cost is also show exactly what it means. Cost is also different from value as cost is measured in terms of money whereas value is measured in terms of usefulness or utility of an article.

Cost Center: A Cost centre is the smallest segment of activity or area or responsibility for which costs are accumulated. Typically cost centers are departments but in some instances, a department may contain several cost centers. These cost centers are the departments or sub departments of an organization with reference to which cost is collected for cost ascertainment and cost control. For example, although an assembly department may be supervised by one foreman, it may contain several assembly lines. Some times each assembly line is regarded as a separate cost centre with its own assistant foreman. A cost centre can be a location, i.e. an area such as department, store yard or sales area or an item of equipment, e.g. lathe machine, foreman. The determination of suitable cost centre is very important for ascertainment and control of cost.

Cost centre may be a product centre or service centre. Product centre refers to a centre through which a product passes and generally corresponds to a product department. In such centers, raw materials are converted into finished goods. Service centre is a department or centre which incurs direct and indirect costs but does not work directly on products. Maintenance department and general factory office are examples of such centres.

iii. Profit Centre: A profit centre is that segment of activity of a business which is responsible for both revenue and expenses and discloses the profit of a particular segment of activity. Profit centres are created to delegate responsibility to individuals and measure their performance

1.4 An Overview of Nepalese Industrial Development

Industrialization is an important factor for achieving the basic objective of a country's economic and social progress. Industrialization not only provides goods and services but also creates employment opportunities. It facilitates on effective mobilization of resources of capital and skill which might otherwise remain unutilized. It also acts as a technological improvement industrial development. Industrial development thus has a multiplier effect on the economy.

Industrialization is a major infrastructure for stable and reliable economic development. Neither the government nor the people themselves are able to establish the industries. Nepal is he pursuit for development has basically embanked upon public Enterprises (PEs) for development in service as well as productive sector, lack of industrialization on the other hand, the stagnatory private sector enterprises on the other contributed it's growth in rapid speed.

The growth and development of industries can be traced to some thirteen hundred years ago. When Nepal was ruled by Lichavi Kings, at that period, especially cottage and small industries were established and operated. Nepal was rich in the skill of making handicraft goods, wooden carved goods, statues and arts from the very beginning. After the beginning of Nineteenth century some variety of goods were used to be imported into Nepal and this kind of imports generally lost the effects of ancient crafts and small industries.

Before formulation of first five year plan in the year 1956, some industries had been growing up in Nepal in an implanted manner being motivated by the changing condition at home and abroad. In the Rana Regime up to the end of the year 1950, many joint stock industrial companies came into existence but many failed sometimes after the world war (1939 – 45) due to the lack of foresight and long range perspective in those days. Many industries in leather, tanning, timber, woolen textiles, iron works, cloths, dying and cotton textiles as well as some consumer goods have to be abandoned due to unfavorable circumstances. Biratnagar Jute Mills and Juddha match factory however could pull and expand their operations successfully with various kinds of protections and preference granted by the Rana rules in those days. Beyond the preliminary facts, there was not much of industrial strategy and industrial planning in those days except some specific measures and policies towards the promotion and development of cottage and small scale industries.

It was for the first time, a powerful development board named as Udyog parishad was constituted in 1935, to boost up the growth of cottage and

small scale industries in Nepal. This Udyog Parishad was entrusted with the task of promoting agriculture, industry and commerce of the country. Also many other specialized development agencies such as krishi parishad, khani adda and Nepali kapada Ra Gharelu Illam Prachar adda were also created in subsequent years. After the political changes in Nepal, the first five year plan was started the need of industrial development in Nepal along with agricultural progress. The aim of first plan was to encourage private investment by providing facilities to industries through technical assistance and to revive cottage industries. In order to encourage and assert the development of private industry and industrial development centre, was established in 1975, which was subsequently converted into industrial development corporation by a special charter act in the year 1959.

The second three year plan (1962- 65) is generally labeled as a preparatory program was in favour of power and industrial development as against agricultural development. During the second plan, achievements in the private sector were remarkable with the establishment of industries like sugar, metal, crafts, hotels, pharmaceuticals, matches, textiles, catechu, biscuits and confectionaries etc.

The third five year plan recognized industrial nation as an essential component of economic growth. The plan emphasized expanding and utilizing existing capacity of industries, promoting import substituting and export promoting industries.

The fourth, fifth sixth and seventh five year plan also emphasized the need to attract private sector investment in industries. The previous

industrial policy was revised in 1974, 1981 and 1988 respectively. In each revision, the government tries to expand the facilities, concessions and exemptions to be provided to industries.

The Eighth plan (1992–97) vehemently attacked on the performance of public enterprises. It states that the performance of state owned enterprises reached a stage of great inefficiencies, indifference and apathy. This plan felt the necessity to involve the private sector activity in the industrialization and accordingly accorded the policy to privatize those public enterprises. Which might discourage the private sector enterprises have been privatized among which twelve were manufacturing enterprises to a number of twelve instead of twenty three.

The Ninth plan (1997-2002) was mainly focused on promoting the private sector so that it could play a lead role in industrial activities with enhance competences in areas having comparative advantage. The long term approach to industry growth with a vision of doubling the present level of industry sector contribution from 10 percent to 20 percent to GDP of the ninth plan was to develop industry sector in an integrated manner by means of mobilizing necessary resources bring about inter sectoral compatibility and cohesiveness in policies and programs and attracting foreign direct investment for sustainable industrial development.

1.5 Salt Trading Corporation Limited

Salt Trading Corporation Ltd was established in 2020 Bhadra 27 under the direct involvement of Nepal government and some businessmen belonging to salt trading. Business in order to keep the quality salt supply management and to control over the supply throughout the

country and regulate the work so that people would feel no more problem of salt. There was also public comment about the created shortage of salt, unnecessary increased in price and uneasiness in salt distribution made by the contemporary businessmen. So being extremely serious over such problem SIC has been serving to its customers very honestly and continuously right after its establishment. The quality and price of salt is also very much good even poor income group.

Moreover the corporation has also assured to its customers about the quality supply at its products with reasonable price.

Corporation has already established branches and sub braches in 75 districts. Distribution has very effectively been made throughout the country along with its branches, such branches and several dealers. Corporation has also a long experience in trading of basic goods.

Services provided by the corporation.

- i) Edible products: Salt, Ghee, oil, sugar, wheat, rice
- ii) Other products: Lubricants, coal, cement, tractor.

High quality, reasonable price, easy distribution throughout the country for whole year and not to do trading of those products which cause bad effect to public health are the commitment of corporation.

The main objective of the corporation is to import and distribute. Salt and other consumable goods within the kingdom of Nepal, as an agent of the national and international companies and to establish the industry. The corporation has promoted and managed different finance and insurance companies in the country, which are Butwal spinning mills Ltd. Gorakhakali Rubber Udhyog Ltd. Cottage and Handicraft Industries

Ltd. Sagarmatha Finance Company Ltd. Sagarmath Insurance Company Ltd. Etc.

1.6 Statement of the Problem

Nepal government has adopted liberal policy to develop the commercial sector, but they are unable to operate in satisfactory condition. Managers are attempting in reducing number of employees instead of cost centre to reduce costs. The vital challenge to the manager is to identify the cost profit relationship. All cost do not have equal role in making profit. Cost classification is very necessary to control cost. Only P & L A/C and balance sheet don't refer actual performance of company. This study helps to analyze the following problem:

- What types of cost items have been used
- Which costs have the roles over the profitability?
- What are the major factors to determine the level of cost?
- What is the relationship among different cost items on the total cost?
- Has the organization been practicing the effective cost accounting tools?

1.7 Objectives of the Study

The following are the objectives of the study:

- To examine the cost structure.
- To examine the present practice of cost accounting system.
- To evaluate the proposition of different cost element in total cost.
- To assess the impact of costing system on profitability.

1.8 Limitation of the Study

The following are the limitations of the study:

- The study will concern with salt trading corporation Ltd. so the conclusion drawn from this study may not be relevant for other business firms.
- The study will attempt to find out the impact of cost structure on salt trading corporation Ltd.
- This study will cover last five years (2061/062 – 065/66)
- The study is based on secondary data collected from annual report, financial statement etc.
- Accuracy of the study will be based on the available data.

1.9 Organization of the Study

This study has been divided into five different chapters. These are

Chapter 1: Introduction

This chapter contains the brief introduction of the subject matter i.e. background of the study, statement of the problem, objectives of the study, limitation of the study and plan of the study.

Chapter 2: Review of literature

This chapter is an explanatory section of the thesis. It will be revises the literate regarding the STC and a brief sketch of previous research work.

Chapter 3: Research Methodology

The chapter acknowledges the research methodology used in this study. It will be research design, sources of data, data processing procedures, tools and techniques of analysis used.

Chapter 4: Data presentation and Analysis

This chapter is truly on analytical section of the thesis. In this chapter data presentation and analysis with the help of selected tools and techniques will be included.

Chapter 5: Summary, Conclusions and Recommendation

This is the final part of the study. This part will consists summary of the overall study, conclusions from the analysis of data and put forward recommendation to improve the existing situation.

1.10 Significance of the Study

At the present time, organizations are using different tools and techniques to control cost. Cost can't be fully eliminated but it can be reduced to some extent, for which cost structure analysis is very important; cost classification, relationship among costs and trend of costs are major focus of the study. Fixed variable semi-variable, production, administration, selling, material labour, overhead will major classification of costs.

Further the concerned scholars, academicians, investors; professionals may also be benefited from this study. This study will also help to inform decisions maker about the importance of cost structure for their success.

CHAPTER II

THEORETICAL FREAMWORK & REVIEW OF LITERATURE

2.1 Theoretical Framework

2.1.1 Cost Accounting

Cost accounting as a tool of management provides management with details records of cost relating to production, operations or functions. Cost accounting refers to the process of determining and accumulating the cost of some particular product or activity. It also covers classification, analysis and interpretation of cost. The costs, so, determined and accumulated may be the estimated future costs for planning purpose, or actual costs for evaluating performance. The institute of cost and Management Accountants, London defines cost accounting as "the process of accounting for cost form the point at which expenditure is incurred as committed to the establishment of its ultimate relationship with cost centers and cost units. In its widest usage it embraces the preparation of statistical data, the application of cost control method and the ascertainment of profitability of activities carried out or planned."

Cost accounting is an orderly process of using the principle of general accounting to records the cost's of operating a business is such a manner

that, with data of production and sales, the account's maybe used by management to as certain production and distribution cost's, both per unit and in total of one or all product's manufactured or services rendered, and the cost's of the various other functions of the business, for the purpose of securing economical, efficient and profitable operation. Cost accounting furnishes information about cost's, inventories, cost of sales, distribution cost's, sales, and profits for each of the several lines of product's manufactured. This information is or can be extended in detail to each of the lots or orders that make up a product. Cost accounting also furnishes information in detail about expenses in relation of the operation functions of the business. Thus, with a cost system, a cost system, the cost of operating a department or conduction any other activity of the business can be known explicitly and in detail.

Cost accounting is a branch of accounting and has been developed due to a limitation of financial accounting. Financial accounting is primarily concerned with record keeping and directed towards the preparation of profit and loss account balance sheet. On the other hand cost accounting is a information system which records, measures reports about costs. A cost is a sacrifice of resources. Costs are reflected in the accounting system by outlays of cash promises to pay cash at a future date and the expiration of the value of an asset. The primary purpose of cost accounting is cost ascertainment and its use in decision making & performance evaluation. Cost accounting system provides data for both financial accounting and management accounting when costs are used by outsiders, such as shareholders, or creditors to evaluate the performance of the management and make investment decision, they are said to be used for financial accounting purpose. On the other hand,

when cost data are used inside the organization to evaluate the performance of operation activities, personal etc, as the basis of decision making they are said to be used for management accounting purpose, for instance, in a manufacturing business, the cost of products sold and on hand include the total expenditures on materials, labors and all the other production cost's must first be measured then accumulated and finally distributed to the working process finished good and cost's of sold. Consequently the amount of profit reported by a company depends on the accuracy of its cost calculation. Thus, cost accounting is useful for performance appraisal.

Cost accounting also helps in planning. Planning is a process of setting goals and allocating resources to achieve these goals. The expected financial outcome of planning is expressed in terms of budgets. A firm can increase its profit in two ways. i) by increasing unit sale price/sales volume, and ii) by reducing costs.

While the first cannot always be under the control of the management, the second falls well within the managerial domain. A detailed cost accounting system is an important requirement for a systematic cost control for this reason, the management must understand the nature and behavior of different elements of cost, know when and where they are incurred and who is responsible for them. The actual cost should be compared with planned estimates. The differences between these should be analyzed to identify the reasons for deviations and corrective action should be taken to eliminate them. Thus, cost accounting is very useful to management for profit planning.

Cost accounting should be considered the key managerial partner in the planning and control activities, furnishing management with necessary phase, cost accounting deals with the future. It helps management to budget or pre determined materials cost, wages and salaries, and other cost of manufacturing and marketing products. These cost's might be used to set prices or to assists in disclosing the profit that will result with the existence of these cost and expenses, considering competition and other economic conditions. Cost information is also provides to assists management with problems such as product pricing, capital expenditures decisions, expansion of facilities for increased sales or production, make or buy decisions or purchase or lease decisions.

In the control phase, cost accounting deals with the present, comparing current results with predetermined standards and budgets. Cost control, to be effective, depends upon proper cost planning for each activity, function, and condition. By the cost accounting media, management is informed frequently of those operating functions that fail to contribute their share to the total profit or that perform inefficiently, thereby leading to profit erosion. Periodically, generally at the end of the fiscal period, cost accounting deals with past costs of the purpose of profit determination and thereby with the allocation of historical costs to periods of time.

Cost accounting measures cost in accordance with he plans and needs of business management. Costs must be based on relevant facts competently observed and significantly measured to enable management to make valid decisions. Cost accounting is a means to an end, not an end is itself.

The functions of cost accounting can be grouped under the following three heads:

- a) Ascertainment and analysis of cost and income by product, function and responsibility.
- b) Accumulation and utilization of cost data for control purposes to have the minimum possible cost consistent with maintenance of quality. This objective is achieved through fixation of targets, ascertainment of actual, comparison of actual with targets, analysis of reasons of deviation and reporting to the management for taking corrective action.
- c) Providing useful data to the management for taking decisions.

Cost accounting has the following three important objectives.

- a) Product costing: The total product cost and cost per unit of product are important in making inventory valuation, deciding price of the product and managerial decision making. Product costing covers the entire cycle of accumulating manufacturing and other cost and subsequently assigning them to work-in-process and finished goods.
- b) Planning and control: Another objective is the creation of useful cost data and information for the purposes of planning and control by management. The different alternative plans are evaluated in terms of respective cost and associated profits. A properly designed cost accounting system includes the following steps in control process comparing actual performance with budget, analyzing the variance by causes and management responsibility, and providing managers with data and report about their individual performances and performance of subordinates.

- c) Information for decisions: To provide data and special analysis for short and long run decisions of on-recurring nature is the another important objective of cost accounting.

2.1.2 Cost Accounting and Management

Management requires adequate, systematic and useful cost data and report to manage a business enterprise and to achieve business objectives. The useful information provided by cost records and reports in cost accounting assists management in performing the following important tasks?

- a) Cost accounting helps in determination and analysis of costs of departments, processes, jobs, products, sales territories, sales ordered etc. this advantage is not available to manufacturing companies alone. In fact, the analysis of cost and income can be made in almost all type of organization-profit or non-profit.
- b) Cost accounting helps management in controlling cost which is probably the most important objective of every business firm. Cost accounting facilitates this task through accumulation and utilization of cost data regarding different products, activities or function. Each cost should be examined in the light of service of benefit obtained so that management can keep the cost at the lowest possible point.
- c) One of the important uses of cost information is in helping to make revenue decisions. Revenue decisions can be pricing of new products, whether to lower or raise price, or product mix to push in the market, and profit volume decisions, the profit is mainly the result of a combination of cost, volume and selling price. Cost data assists management in making sound decision in all these important areas.

- d) Cost accounting helps in making special cost studies and investigations which are vital to management in formulating policies and plans directed towards profitable operations. Such special studies include pricing of a new product or new service, elimination of seasonal conditions, expansion or contraction program, replacement of machinery and equipment, dropping a product, change in method of distributing product, change in product method.
- e) Cost accounting assists and participates in the formulation and execution of budgets and standards. Cost information for managerial decision making and planning is the most important justification of a sound cost accounting system.

2.1.3 Cost Accounting and Management Accounting

Although over the years, the subject matter of cost accounting has broadened, it is concerned mainly with the techniques of product costing and deals with only cost and price data. It is limited to product costing procedures and related information processing. It helps management in planning and controlling costs relating to both production and distribution activities.

Management accounting may be defined as the application of accounting techniques for providing information designed to help all levels of management in planning and controlling the activities of business enterprise and in decision making. Management accounting is confined to the area of product costing, cost and price data. In management accounting, the objective is to have a data pool which will include any and all information that management may need.

2.1.4 Cost

Cost may be defined as the sacrifice or living up of resources for a particular purpose. Cost is frequently measured by monetary units that must be paid for goods and services. Cost are initially recorded in elementary form than those cost are grouped in different ways to help managers make decisions such as evaluation subordinates and sub units of the organization extending or deleting equipments to aid decisions, managers want the cost of something. This something is called a cost objective or which may be defined as any activity for which a separate measurement of cost is desired.

Management needs systematic comparative cost information as well as analytical cost and profits data to manage an enterprise. This information is needed to assist: (1) setting the company's profit goal by management, (2) establishment department targets which direct middle and lower management towards the achievement of the final goal. (3) Measuring and controlling departmental and functional activities with the aid of budgets improvements to keep the entire organization moving forward in balance toward establishment profit and other company objectives.

The process of recording, classifying, analyzing and controlling of cost is the cost accounting. The main objective of cost accounting is to analyze the financial activities from which the cost involved could be allocated to each job or process and at the mean time the actual cost of each job or process is ascertained. Thus the main focus of cost accounting is to important to classify the cost. Cost accounting helps the management, to a great extent. Mere knowledge of total cost cannot

satisfy the need of management. For proper control and managerial decision, management needs detailed cost data. The planning, decision making, cost control, inventory valuation, profit measurement etc., all these can be done by management only by knowing detailed cost information. Cost accounting serves these information by classifying and analyzing the cost in detail.

According to CIMA, cost is "the amount of expenditure (actual or notional) incurred on or attributable to a given things." Committee on cost concepts and standards of American Accounting Association defines, "cost is a foregoing measured in monetary terms incurred potentially incurred to achieve a specific objective".

According to Shilling law, "cost is the amount of resource given up in exchange for some goods or services".

The performance of the function of the cost department involves the past, present, and future. In profit measurement, as evidenced in the income statement, the accountant is primarily concerned with the proper recording and presentation of costs and revenues for operations and transactions already experienced when issuing control reports, s/he is working in the present rather than in the past. In developing costs for planning purposes, the accountant is concerned with the future.

The accountant evaluates and uses data in manner that will channel out essential facts for management. Since the cost data depend upon proper, correct and timely information from all levels of the organization, cost accounting becomes a co-operative venture involving all departments of the company. It is an educational problem of top management, the

controller and the controller's staff to make all employees cost conscious.

Since plans are based on primarily forecasts of future conditions, it is necessary to consider costs, as they most likely will be at such future time. For planning purpose, cost must be considered in terms of their relationship to volumes as well as in terms of future prices, plant capacities, and labor efficiencies. Cost accounting can assist management levels in planning and control duties by providing information by analytical tools that express more vividly and forcefully the multidimensional aspects of managerial problems. For example, break even analysis offers one methods that permits management to judge the overall plan in a very pragmatic and convenient basis. To calculate the breakeven point, it is first necessary to observe the behavior of costs as to their fixed or variable nature. The mechanical influences together with the use of time-adjusted cash flow projections for capital expenditures, the inventory models to project future materials requirements based on orderly planning and control procedures, and the techniques of linear programming for profit maximization or cost minimization contribute an ever growing number of accounting and cost accounting models that have become part and parcel of the information system available to management.

Accounting for costs is an extremely complex proves. In conducting business operations, assets lose their original identity that is they are converted in to some other form. For example, materials used in a chemical process often cannot be identified as such in some and product

produced. Costs are traced through operations, wherever possible, as the assets are transferred or converted in the course of operations.

One of the principle objectives in accounting for cost is the measurement of profits and losses. The costs attached to the products or services sold are matched against the consideration received from the customers in the determination of profits or losses. Cost and the problem of accountability are important in business management. Operations are controlled by using cost as a basis to measure effective and efficient performance. Cost standards are set up and actual costs are compared with those standards to determine deficiencies and the source of deficiencies. From the evaluation of present position, management uses cost data in drawing up plans for the future. There are many ways in which costs can be analyzed and combined to help management make decisions.

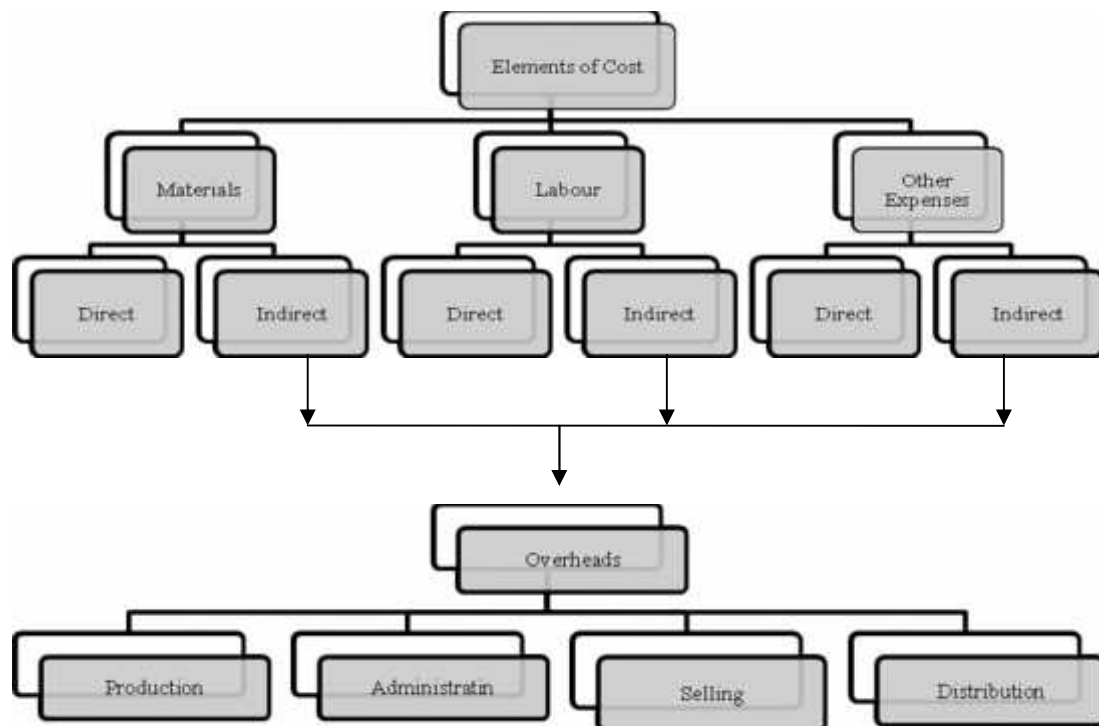
The collection, presentation and analysis of cost data should serve the following essential uses:

1. Planning profit by means of budgets.
2. Controlling costs by responsibility accounting
3. Measuring annual or periodic profit, including inventory costing
4. Assisting in establishing selling prices and a pricing policy
5. Furnishing relevant cost data for analytical and decision making processes.

2.1.5 Element of Cost

Make knowledge of total cost cannot satisfy the needs of management for proper control and managerial decisions, management is to be provided with necessary data to analyze and classify costs. For this

purpose, the total cost is analyzed and classified into costs. For this purpose, the total cost is analyzed by elements of cost i.e. by the nature of expenses. Strictly speaking, the elements cost are; materials, labour and other expenses. These elements of cost are further analyzed into different elements as illustrated in the following chart:



By grouping the above elements of cost, the following divisions of cost are obtained.

- Prime Cost = Direct material + Direct labour + Direct expanses
- Works or Factory Cost = Prime Cost + Works or Factory Overheads
- Cost of Production = Works Cost + Administration Overheads
- Total Cost or Cost of Sales = Cost of Production + Selling and Distribution Overheads.

The difference between the cost of sales and selling price represents profit or loss.

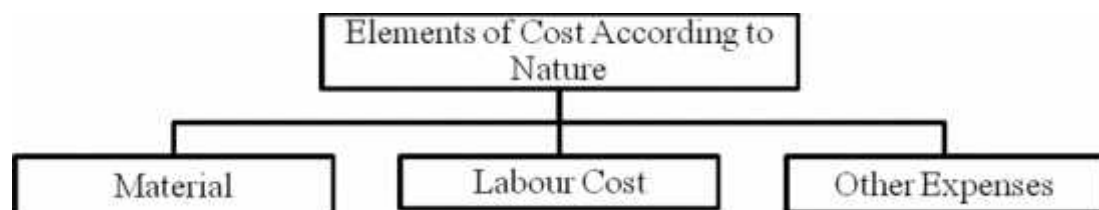
2.1.6 Classification of Cost

Costs have been classified in different ways in accordance with their common characteristics. Classification of cost is the process where costs are grouped under their similar nature. Following are the important ways of classification.

- According to nature or element
- According to traceability to the product
- According to change in activity or volume
- According to control.
- According to functions.
- According to association with product.
- According to financial statements.
- According to managerial decision.

i. According to Natural or Element

According to the nature, cost is divided into three categories i.e. materials, labour and overheads



Material Cost

All type of goods used in the process of production are called materials. The amount paid to acquire factors of production in a manufacturing organization. Materials account for nearly 60 percent of the cost of production as is clear from an analysis of the financial statement of a large number of private and public sector organizations. Material cost

can be divided two categories i.e. direct material cost and indirect material cost. Materials which are directly involved in the process of production and which can easily identifiable to a particular unit of product are called direct material. Direct material forms a part of the finished product and can be easily identified. Timber in furniture industries and clothes in garment industries are the examples of direct materials. On the other hand materials which are not directly involved and do not form the part of finished product are called indirect materials. Indirect material cannot be conveniently and accurately allocated to a particular unit of product. However, they help in the process of production. Materials used for cleaning, oiling of machines are no doubt used in production but as they are not directly attributable to specific waste and the price value of these items are also very nominal, they are treated as indirect materials. Thread used in garment factory, nail used in furniture workshop are the examples of indirect materials.

Labour Cost

The contribution of work made by a person in the process of production is called labour. The cost paid for such work is called labour cost. Wages paid to the labours and remuneration as labour paid to the administrative staffs include under the term "labour cost". Thus, remuneration paid whether to a physical work or a mental work is labour cost. There are two classes of labour into production goods. They are:

- Direct labour cost
- Indirect labour cost

The labour directly charged to a product is called direct labour or productive labour. Direct labour cost includes the wages paid to

employees who work directly on specific productive output. As to specific production are defined as direct. Wages paid to tailor, or a carpenter is the examples of direct labour cost. These costs can be attributable to particular job.

The labour indirectly involved in the process of production is called indirect or unproductive labour. The remuneration paid to such workers is called indirect labour cost. Such labour cost cannot be attributable to a unit of production separately. Remuneration paid to foreman, watchman, storekeepers, inspectors and official staffs are the examples of indirect wages.

Other Expenses

All those expenses other than material and labour which are incurred and part production process or job fall under this group. These types of expenses may be sub-divided into two headings:

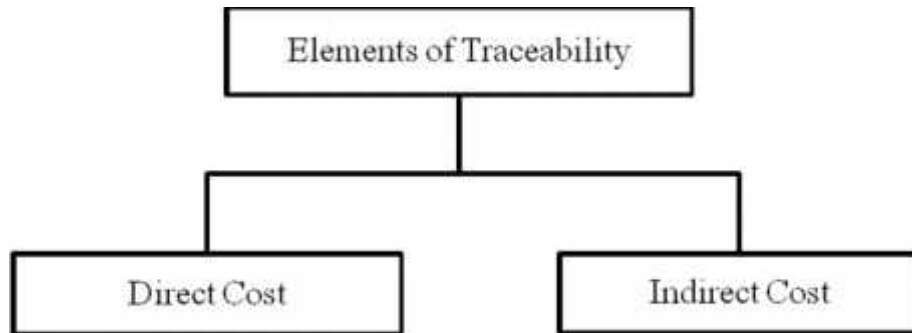
- Direct Expenses
- Indirect Expenses

Any expenses incurred other than direct material and direct labour which can be identified and attributed to the particular product or job is called direct expense. All chargeable expenses in connection with job are the examples of direct expenses.

An expense which cannot be allocated and traced out for a particular job or product is generally known as indirect expenses. Rent of building, insurance premium, depreciation, repair, electrical charges, salary of administrative staffs are some of the common examples of indirect expenses.

ii) According to Traceability to the Product

There are certain costs which can be easily identified to a particular product and likewise there are various types of cost which cannot be directly indentified to a particular product. Thus, on the basis of traceability, costs may be categories into following headings:

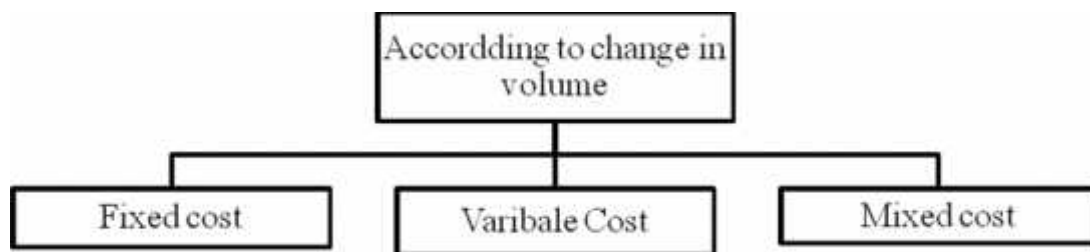


Direct costs consist of all those items of expenditures which can be conveniently identified wholly with a unit of cost. In includes expenses of materials, labour and direct expenses. According to W.W. Bigg, "Direct Cost is that cost which can be conveniently identified with a particular unit" for making dresses, the cost of the cloth and tailoring cost can be taken as an example of direct cost.

Indirect costs are those costs which are incurred for the benefit number of cost centres and are not conveniently indentified with a particular cost center. According to W.W. Bigg, "Indirect cost includes all other expenses incurred for the undertaking as a whole and are not identifiable wholly with a particular unit of cost." The examples of indirect cost are the cost o thread for stitching clothes, the cost of nails or colour while making furniture, manager's salary, rent of the factory etc.

iii) According to Change in Activity or Volume

The costs can be classified on the basis of variability of cost in the volume of production. These are certain expenses which remain constant and do not vary with increase or decrease in production volume. However, certain expenses of vary directly and proportionately with output. In terms of variability of changes in cost behavior in relation to changes in output or volume, cost can be classified into fixed, variable and semi variable or mixed cost.



Fixed Cost

Fixed costs are costs associated with those inputs which do not vary with changes in volume of output or activity within a specified range of activity or output relevant ranges. Fixed cost thus remains constant whether activity increases or decreases within a relevant range like other cost, fixed cost is subject to change over a period of time. As fixed cost are unaffected by volume changes any increase in volume implies that the cost will be allocated to greater number of units consequently fixed cost per unit will become progressively smaller as volume increases and vice versa.

Fixed costs are usually necessary for mechanization and mass production. Mass production results in spreading of fixed cost over more units. With a consequent decrease in cost per unit therefore,

selling price falls and markets widen. "A fixed is fixed only in relationship to a given period, though wide range of activity, called the relevant range. Salary of factory supervisor, rent of the factory, depreciation of plant and equipment, salaries paid to staffs are the examples of fixed cost.

Variable Cost

The cost that varies in total in direct proportion to change in activity is known as variable cost. These costs tend to vary with the volume of output. However, the variable cost per-unit remains constant. The examples of such cost are direct material, direct labour and direct chargeable expenses. The features of variable costs are as follows.

- Such costs are assumed to be constant per unit.
- Total cost tends to vary proportionately with the increase or decrease in production.
- Total cost incurred for any product or department may be identified easily.
- This type of cost is within the control of departmental head.

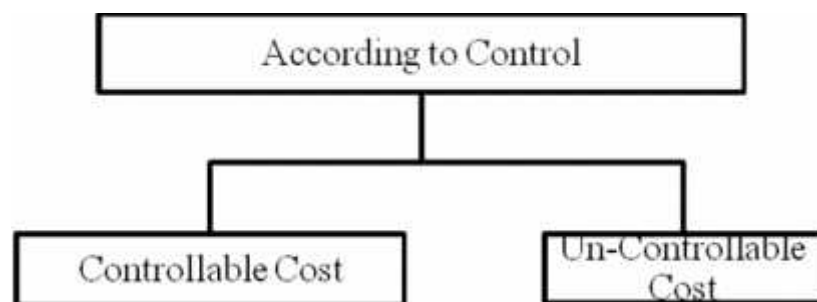
Mixed Cost

All costs which are neither perfectly variable nor absolutely fixed in relation to volume changes are mixed or semi variable cost. Mixed costs consist both of fixed cost and variable cost. The fixed component of mixed cost consists the cost of providing capacity, whereas variable component is caused by using the capacity. The first part won't be affected by the change in volume of activity. The examples of such cost

are depreciation of machinery, maintenance of equipment, telephone charge, electricity charge, insurance charge etc.

iv. According to Control

According to the controllability, cost can be divided into following categories:



Controllable Cost

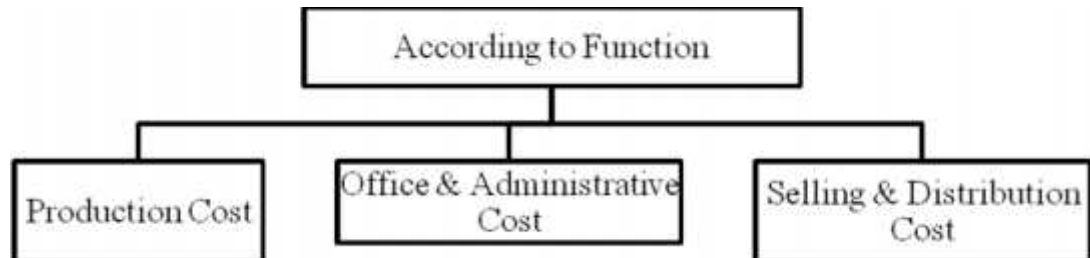
Cost that can be influenced by the action of a responsible member of a particular cost centre is a controllable cost. Direct cost which comprises of direct material, direct labour, direct expenses and some portion of overhead expenses i.e. telephone or electricity charge etc. is controllable by the cost centre in charge. Thus, these types of costs are controllable.

Uncontrollable Cost

Cost which cannot be controlled and influenced by the action of specified member of the organization is known as uncontrollable cost. Rent, salary, rise in electricity are beyond the control of management. Most of the fixed costs are uncontrollable cost. However, an expenditure which is uncontrollable by one individual may be controllable by another individual. Similarly, some costs uncontrollable in short period, may-be controllable in the long run. Therefore, costs are by and large controllable by someone at a certain time.

v. According to Functions

According to functional classification, cost may be sub-divided on the basis of three major activities of a business firm.



Production Cost

All the costs involved in the process of production within the factory are called production cost. It includes the cost involved from processing of raw materials into the finished product. Production cost is also called manufacturing cost or factory cost or work cost. Cost of raw materials, cost of labour, salary of supervisor, remuneration of foreman, depreciation of factory building and plant are the examples of production cost.

Office and Administrative Cost

All expenses related to general administration including the expenditures incurred in formulating the policy, directing the organization and controlling of an organization and not related to production, distribution and selling are called administrative cost. Remuneration of the administrative staffs, rent of office building, depreciation of office building, legal expenses, electricity and telephone charges and its fees, printing and stationary are the examples of office and administrative cost.

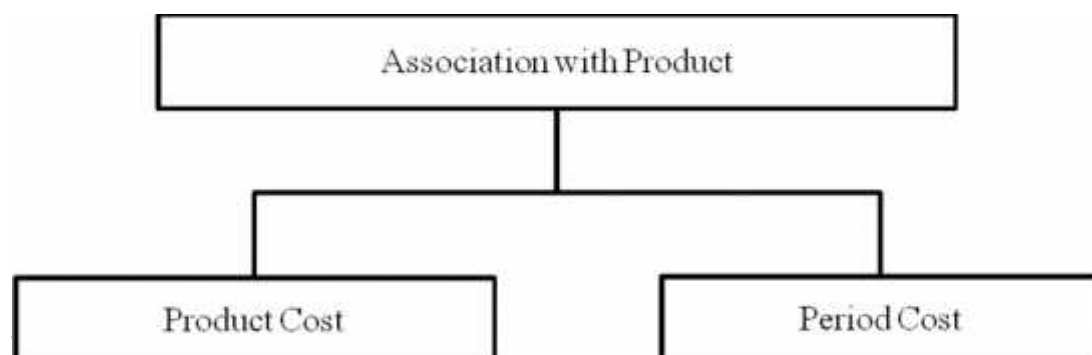
Selling and Distribution Cost

Selling cost begins at the point where the factory costs end; that is, when manufacturing has been completed and the product is in saleable condition. Selling expenses are related to pushing up of sales. Thus, it to salesman, advertising and show room expenses, printing of catalogues and price lists etc.

Distribution costs are those cost which are incurred to perform the marketing functions. Distribution costs are also called marketing cost. Two major categories of distribution costs are: order getting cost and order filling cost. Order getting cost is incurred to affect sales of production. Cost spends on publicity and advertising, salesman salaries and commission, sales executive salaries and so on are examples of order getting cost. Cost incurred on delivering products and other related activities are called order filling cost. These costs also known as logistic costs include transporting cost, billing costs, record keeping cost and so on.

vi. According to Association with Product

On the basis of association with product, the cost can be classified into:



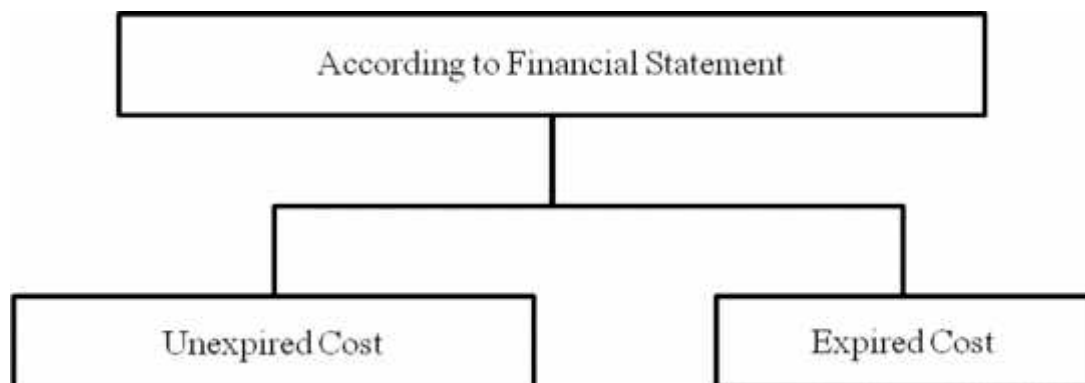
Product costs are those costs which are identified with the product and included in inventory values. In other word, the costs that are included in the cost of manufacturing are called products. All manufacturing costs are products cost and they are included in stock valuation. Price to sale, the stock is assets. As they are sold, they become expenses i.e. cost of goods sold.

Period Cost

Period costs are those costs which are not identified with product or job and are totally deducted as expenses during the period in which they are incurred. They are not carried forward as a part of value of stock the next accounting period. These costs are necessary to generate revenues but they cannot directly associate with units of product. Rent, salaries, insurances etc are the examples of period cost.

vii. According to Financial Statements

The costs can also be classifies on the basis of financial statements. When a cost is incurred, it could either be in the form of unexpired cost or in the form of expired cost. They are either shown in income statement or in balance sheet. Thus, the cost can be classified into two types:



Unexpired Cost

The cost which provides benefits in the future period is known as unexpired cost. Unexpired cost is also known as Deferred Cost. Deferred cost is capitalized cost and shown on the balance sheet. The costs of plant, building, inventory, prepaid expenses etc are the examples of unexpired cost. The costs incurred for all these items are shown in balance sheet, until they are used up or give up their usefulness. When they are used up, they are written off and to that extent they become expenses. These written off expenses are shown in income statement.

Expired Cost

The expenses incurred for receiving immediate benefit or revenue is known as Expired cost. Expired costs are not capitalized and they are not shown in balance sheet. They are charged to revenue in income statement. Office and administrative expenses, selling and distribution expenses are the example of expired cost.

viii. According to Managerial Decision

Management uses different types of cost as tool while making certain managerial decisions. These costs are special purpose costs and they are applicable only in the situation in which they are compiled. They are not recorded in the books of account. However, such costs have a relevancy on the decision making process. These costs are as follows:

- Relevant and Irrelevant cost
- Avoidable and Unavoidable cost
- Opportunity cost
- Differential cost

- Marginal cost
- Sunk cost
- Imputed cost
- Out-of pocket cost
- Replacement cost

Relevant and Irrelevant Cost

Relevant costs are those future costs which differ between alternatives. Relevant cost may also be defined as the costs which are affected and changed by the managerial decision. Relevant costs are future costs which vary as a consequence of the decision. If a manufacturer decided to drop one of its products, the cost required for material and labour would disappear. In that case, the costs of raw material and labour are relevant cost. On the contrary, irrelevant costs are those costs which remain fixed and not affected by the managerial decision whatever alternative is chosen. For example, fixed costs remain the same and no bearing upon whether management accepts or rejects it. These costs should be ignored while making decisions. Remuneration of the manager, rent of factory and office building are the examples of irrelevant cost.

Avoidable and Unavoidable Cost

Avoidable costs are those, which can be eliminated if a particular product or department, with which they are directly related, is discontinued. For examples, salary of the clerks employed in a particular department can be eliminated, if the department is discontinued. Unavoidable cost is that which will not be eliminated with the discontinuation of a product or department. For example, salary of

factory manager or rent cannot be eliminated even if a product is eliminated.

Opportunity Cost

Opportunity cost is the cost of opportunity lost. Opportunity cost is the cost of selecting one course of action in terms of action. Opportunity cost is the benefit lost by rejecting the best competing alternative to the one chosen. The benefit lost is usually the net earning or profit that might have been earned from the rejected alternatives. The monetary benefits that would accrued from taking the alternative course are sacrificed and these benefits, if it is possible to measure them, should be considered as a leased out but used for its own purpose, the rent so foregone is the opportunity of land.

Differential Cost

In making a decision, management will compare the cost of the alternatives. The cost that will remain the same in any case can be disregarded, but the difference in cost between one alternative and another is very important in decision making. A difference in cost between one courses of action another is spoken of as a differential cost. If a decision will result in an increased cost the differential cost may be more specially referred to as an incremental cost. If the cost will be decreased, the differential cost may be referred to as a decremented cost.

Differential cost is the difference in the cost of alternatives choices. It is the cost that must be considered when a decision has to be made involving an increase or decrease of n-units of output above a specified output above a specified output. The differential cost aids in deciding at what price the firm can afford to sell additional goods. As long as the

additional output and its differentially – costed price do not influence the existing, traditional units and their prices and as long as the minimum sales price for these added units exceeds this differential cost, the additional output is desirable because a gain results. Anything above the differential cost results in a gain. If these additional units are to be sold in the same market in competition with the present output and prices, the situation is quite different. A reduction in price to all customers for the sake of increasing capacity to its full limit might add very little additional revenue to the total amount, while the associated increase in costs and expenses might cause negative results.

Marginal Cost

Marginal cost is the term which economist use for differential cost. In economic, when output changes (increases or decreases) by one unit, the corresponding change (increases or decreases) in total cost is referred to as marginal cost. The change in total cost may comprise change in both fixed and variable costs or any of the two. When the accountant uses the term marginal cost, he uses it in the restricted sense of variable cost only. Thus, in management accounting system, marginal costing is a technique of charging only variable cost to products while fixed costs are written off as period costs. This system of charging only marginal costs (variable costs) to products is an important analytical and decision making tool. It is useful in analyzing the profit plans of the firm.

The CIMA, UK, defines the term in original cost as follows:

"Marginal cost is the amount of any given volume of output by which aggregate costs are charged if the volume of output is increased or decreased by one unit. In this context a unit may be a single article, a

batch of article, an order and a stage of production capacity or a department. It relates to the change in output in the particular circumstances under consideration.

Sunk Cost

A sunk cost is the cost that has already been incurred. Generally known as unavoidable cost, it refers to all past costs since these amounts can not be changed once the cost is incurred. They are the costs which have been created by a decision. In the past and can not be changed or avoided by any decision that is made in the future. Examples of sunk costs are the book value of existing assets, such as plant and equipment, inventory investment in securities etc.

Sunk costs are the irrecoverable costs in a given situation. The expenditure having been made in the past, its chances for recovery are almost nil. The meaning of a sunk cost will become particularly apparent when a decision must be reached regarding the exchange of an old asset for a new. Sunk cost also plays a part in reaching the decision to abandon or continue operations.

Imputed Cost

Imputed costs are cost not actually incurred in some transaction but which are relevant to the decision as they pertain to a particular situation. These costs do not enter into traditional accounting system. Interest on internally generated funds, rental value of company owned property and salaries of owners of a single proprietorship or partnerships are some examples of imputed costs.

The concept of imputed cost and opportunity cost may sometime be used interchangeably. For example, when we impute rental value of a floor space, which is being now used for manufacturing a certain product, the cost so imputed, in fact, is the opportunity cost. In some other cases, however, there is a difference between the two terms. Imputed cost is narrow concept as generally confines to internal events and relates more to cost than value-value measured in terms of profit foregone. Interest on owner's equity is an example. The interest imputed may be much less than the profits foregone for alternative investment.

Out of Pocket Cost

While imputed cost do not involve cash outlays, out of pocket costs signify the cash cost incurred on an activity. Non- cash costs such as depreciation are not included in out of pocket costs. This cost concept is significant for management in deciding whether or not a particular project will at least return the cash expenditures associated with the project will at least return the cash expenditures associated with the project selected by management. Similarly, acceptance of a special order of production may necessitate the consideration of out of pocket cost that need not be incurred if the special order proposal is not accepted. Depreciation on plant and equipment is not relevant in decision making because no cash goes outside the business.

Replacement Cost

In accounting records, assets are recorded at book values. At the time of purchase, the costs of an asset represent its market value. However, if the asset has to be replacing something in future, its market value would be different than when the assets was originally purchased. Replacement

cost is amount that the firm would have to spend to replace if assets in the current condition. Replacement cost is a relevant concept when financial statements have to be adjusted for inflation.

Replacement costs, as the term implies, are the costs to replace the assets currently in the use. The replacement cost concept, however, represents a complete departure from historical cost of any particular asset pertains to that asset alone and may not correspond with the general level of prices. On two important points, replacement cost has been criticized as a logical basis for valuation and as a means for the measurement of profits and losses. It is neither an incurred cost nor is it a valid measure of the changes. In the general level of prices, on the other hand, it should be pointed out that there is a lack of agreement with respect to what constitutes a general level of prices that will have universal application. Perhaps replacement costs may be more relevant than price level adjustments in certain case. Replacement cost adjustments, however, is not the same as price level adjustments, and two approaches to the problem should be confused. The replacement cost concept has its advantages and disadvantages, but it introduces a new concept of accountability, and the results will not necessarily agree with the results obtained when price level adjustments are made.

2.1.7 Cost Volume Profit Analysis

Cost Volume profit (CVP) analysis examines the behavior of total revenues, total costs and operating income as changes occur in the output level, the selling price, the variable cost per unit, and /or the fixed cost of a product.

Cost–Volume Profit analysis is a systematic method of examining the relationship between changes in activity (i.e. output) and changes in total sales revenue, expenses and net profit. As a model of these relationships CVP analysis simplifies the real world conditions that a firm will face. Like most models, which are abstractions from reality. CVP analysis is subject to a number of underlying assumptions and limitations nevertheless, it is a powerful tool for decision making in certain situations.

Most of the business fails after a few years, sometimes months of starting because they tend to do anything for volume without thinking how it's going to affect the bottom line. Cost – Volume profit analysis is a management accounting tool to show the relationship between the elements of profit planning. Profit planning is the function of selling price of product, demand, variable costs, fixed cost, taxes etc. The whole picture of profit planning is associated with cost volume profit interrelationship. A popular technique to study cost volume profit relationships is break even analysis. Break even analysis is concerned with the study of revenues and cost will be exactly equal or the net income will be zero. It is "No profit or loss" situation. This point is a cornerstone of profit planning.

The key motive of business enterprises is to make and maximize profit. Profit does not happen by chance. It is to be managed. Cost-volume-profit analysis is a supplementary tool of planning for developing alternative strategies in sales planning and the cost estimation. A certain relationship exists between the variables like selling price, sales volume, expenses and taxes. Cost volume profit analysis is an accounting

technique showing the relationship between these variables. This technique is applicable in all economics sectors (manufacturing, wholesaling, retailing and service industries), because the same types of managerial function are performed in each type of organization, Cost – volume profit analysis, though most often illustrates business cases, is equally applicable for non – profit making organizations to allocate scarce economic resources most effectively among the competing alternatives. Allocation of scarce resources among the various demanding sectors is the most important part of national planning.

2.1.8 Break Even Analysis

Cost volume profit analysis includes both contribution analysis and break even analysis. Break even analysis uses the same concept as contribution analysis; however, it emphasizes the level of output or productive activity at which sales revenue exactly equals total costs; that is, there is no profit or loss. Break even analysis rests upon the foundation of cost variability. It is usually applied on a total company basis. At break-even sales, the company just breaks even i.e. recovers all of its cost. In other words, break even sales volume is that level of sales volume in which a company neither makes a profit nor suffers losses. It will just be able to recover its cost to put break point in other words, this is a point at which a company neither makes a profit nor suffers losses. It will just be able to recover its cost to put break even point in other words, this is a point at which a company breaks the loss zone and enters into profit zone. Break even analysis helps the management to know which sales volume will only recover its cost and after which it starts giving profit. Therefore, it can provide management some insights into profit planning.

There are three methods for determining the breakeven point:

i. Equation Method

The first approach for computing the breakeven point is the equation method.

Revenues – variable cost – fixed costs = Operating income

ii. Contribution Margin Method

A second approach is the contribution margin method, which is simply an algebraic manipulation of the equation method. Contribution margin is equal to revenues minus all costs of the output, which vary with respect to the units of output. This method uses the fact that:

$$(USP \times Q) - (UVC \times Q) - FC = OI$$

$$Q(USP - UVC) = OI + FC$$

$$Q = \frac{OI+FC}{UCM}$$

Where,

USP = Unit Selling Price

UVC = Unit Variable Cost

FC = Fixed Cost

Q = Quantity or Volume

OI = Operating Income

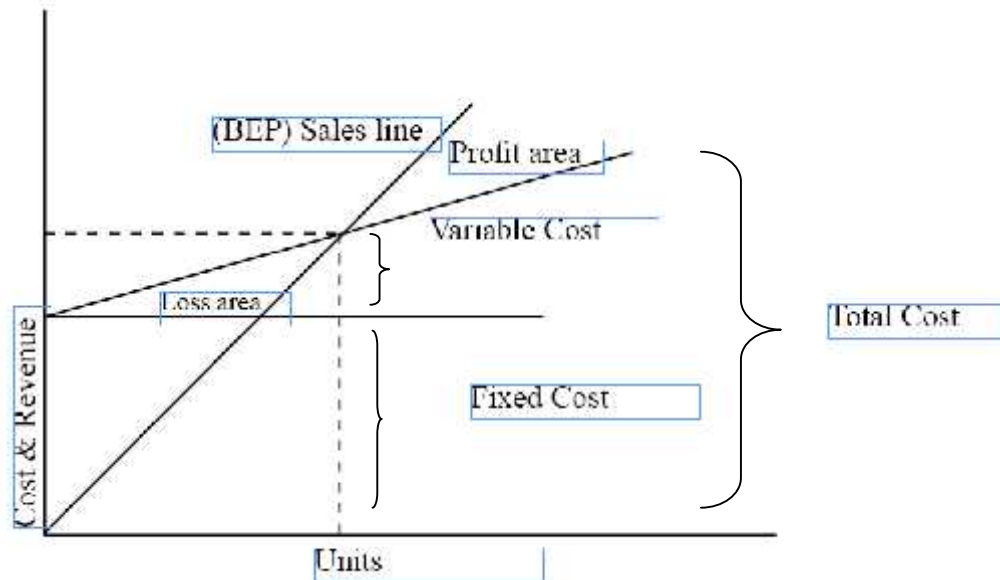
UCM = Unit Contribution Margin

At the breakeven point, operating income by definition, zero setting $OI = 0$. We get,

$$Q = \frac{FC}{UCM}$$

iii. Graphic Method

The breakeven point can also be calculated by graphic. The breakeven point is that point where the total revenues line and total costs line intersect each other. At this point, total revenues equal to total costs.



2.2 Review of Literature

The researches in the area of cost structure analysis of Nepalese public enterprises, only few researches have been done. The cost structure of any enterprises is one of the most important point to run the business. Usually, the study on cost structure have been neglected.

Nakarmi Gopal Kumar (1997) had conducted a research in the area of "cost structure of Balaju Kasta Karlaya Company" submitted to Tribhuvan University for the partial fulfillment of MBA. Overall objective of his report was to justify whether the cost structure of BKK is competitive in furniture market or not, a comparative study of material cost as well as overhead expenses to total cost made between the firm and Biswa Karma Silpkala Pvt. Ltd. in this studied Ms.

Nakarmi has pointed out various findings and recommendations. Some remarkable findings were as follows:

- The cost structure of BKK comprises of 40% of timber to total material cost. Timbers are imported from India, which is the cause of an extra cost in purchase price.
- The total material cost is an average of 57% to total cost of which timber being 40% and rest of the materials are 60%. The firm has to pay extra cost due to the irregular supply of timber from TCN
- The cost structure of BKK is comparatively lower than that of BKSK, either due to inefficient procurement or the unsystematic issue of material by store.
- Neither FIFO nor LIFO system nor sales have been considered for material issue and physical valuation.
- The percentage of material cost to total cost is fluctuating. It shows no proper plan made to control the material cos.
- No reconciliation has been made between material issued from stores and actual consumption shown by cost sheet.
- Job cost cards have been maintained but no summarization has been made to find out the total for the whole year.
- The trend of total overhead of BKK is in increasing amount each year with the amount and production but there is wide fluctuation in its percentage.

Subba Preeti (2002) had conducted a research entitle of "cost structure analysis of Nepales public enterprises with reference to Dairy Development Corporation". This research of Miss Subba was mainly centered with to the proposition of different cost elements in total cost

and managerial involvement towards cost accounting system. Some remarkable findings of that research were as follows:

- Total expenses of DDC are in increasing trend except in FY 2056/57, where the company has been able to decrease its total expenses slightly.
- DDC has no pre-estimation of cost and probable cost
- It has no separate costing department.
- Material costs cover the major part of total cost.
- Processing cost comprises major part of total cost.
- Processing cost comprises major part and collection. Cost comprises the smallest part of the total overhead cost of DDC. Both fixed and variable costs of DDC are in increasing trend.
- Variable cost of DDC comprises the greater part of total cost.
- Production and administration costs have increased in the past five years and it seems that the company has no plan to control these costs. Selling and distribution cost has decreased in the past five years.
- Production cost occupies the most part of total cost.
- The company has neither analyzed the break even point properly nor has taken seriously measure to reduce the BEP volume. BEP in the five years is always higher. The company has not been able to cross its BEP point, where variable cost ratio is 91.07% and PV ratio is 8.93%.

Paudel, Shiba Prasad (2004) had conducted a research work in "Cost structure analysis of Lumbini Sugar Mill". The main objective of this study was to examine the cost structure of LSM and its costing system. This study was covered seven year time period (2053/054 to 2059/060.

All the necessary data were collected from the secondary sources as well as primary sources. Some remarkable findings of this study were as follows:

- LSM has not adopted the scientific classification system of cost.
- The company has neither analyzed the BEP properly nor has seriously taken any measure to reduce BEP volume.
- The amount of total expenses has been fluctuating trend.
- The material cost, labour cost and overhead cost covered 46%, 15% and 39% part of total cost respectively.
- LSM has not proper practice of segregation of cost according to fixed and variable.

2.3 Research Gap

Various researches have been done for the analysis of cost structure of different organization. Previous researches had shown the relationship among costs. This research has attempted to show the relationship of different costs and profit. Break-even analysis is also done. It does not show only the increase and decrease in the cost element but also shows which cost element put dominant effect on profit.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

Research is a systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering, recording and analyzing and interpreting the data with the purpose of finding answer to the problem. Research methodology is the way to solve systematically about the research problem. In this section, efforts have been made to present and explain the specific research design for attaining the research objectives. This study attempts to analyze the cost structure of salt trading corporation LTD and there by forward some measures to improve the situation. The research methodology includes research design, nature and sources of data and tools used.

3.2 Research Design

The research deigns serves as a framework for the study. Guiding the collection and analysis of the data, the research instrument to the utilized and sampling plan to be followed. Research design describes the general plan for collecting .analyzing and evaluating data after identifying. For the purpose of this study, descriptive and analytical research design has been followed.

3.3 Nature and Sources of Data

This study is based on secondary data .this secondary data are used extensively and are modified to some extent for the study purpose. Secondary data have been taken mainly from the annual reports of STC which comprises balance sheet and P/L account of STC.

3.4 Statistical Tools

Data collected from various sources are managed, analyzed and presented in proper and systematic way e.g. tables and formats. Statistical tools, such as, mean. Standard deviation, coefficient of variation, correlation and regression analysis have been used.

i) Arithmetic Mean

Arithmetic mean or simply a mean of a set of observation is the sum of all the observations divided by the number of observation. Arithmetic mean is also known as the arithmetic average. Let, $x_1, x_2, x_3, \dots, x_n$ be the n values of variables than their arithmetic mean denoted by $\bar{x}$ is defined by

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$$
$$= \frac{\sum x}{n}$$

Where, n is the number of observation.

ii) Standard Deviation

The standard deviation is the absolute measures of dispersion in which the drawback present .in other measure of dispersions are removed. It is said to be the best measure of dispersion. Standard deviation is defined as the positive square root of the mean of the square of the deviations

taken from the arithmetic means .it is denoted by σ . if x be the variant values and $\bar{x}$, their arithmetic mean, than the s.d. σ is give by

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

$$= \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$$

Where, n = no. of observations.

iii) Coefficient of Variation

Standard deviation is the absolute measure of dispersion. The relative measure of dispersion based on the standard deviation is known as the coefficient of standard deviation.

$$\text{Coefficient of S.D.} = \frac{\text{S.D.}}{\text{Mean}} = \frac{\sigma}{\bar{x}}$$

The coefficient of dispersions based on the standard deviation multiplied by 100 is known as the coefficient of variation (c.v.) if $\bar{x}$ be the arithmetic mean o be the standard deviation of the distribution, the C.V. is defined by

$$\text{C.V.} = \frac{\sigma}{\bar{x}} \times 100$$

It is independent of unit. So, two distributions can be compared with help of C.V. for their variability less the C.V. more will be uniformity, consistency etc and more the C.V. less will be the uniformity .consistency etc. correlation and regression and statistical device to measure the amount of similarity and variation i.e. degree of association between series of pairs of observation of two or more variables. These

tools helps us in finding out how much a variable changes corresponding to the average amount of the change in other variables. In other words, it is a statistical tool generally used to describe the degree to which one variable is related to another. The relationship, if any, is usually assumed to be linear.

Correlation Analysis

Correlation analysis is defined as the statistical technique which measures the degree and direction of relationship among the variables. In other words, it helps in studying the covariance of two or more variables. Correlation analysis does not tell anything about cause and effect relationship i.e. if there is a high degree of correlation between the variables, we cannot say which is the cause and which is the effect.

The concept of cause and effect relationship is most important in the study of correlation and regression analysis. The variable which makes another variable to change is called "cause variable", and the resulting variable is called "effect variable". There can be at a time more than one cause variables affecting a single variable. The dependent variable Y and independent variable X can be presented as,

$$Y = F(X)$$

$$\text{OR } Y = F(x_i), i = 1, 2, 3, \dots, n$$

The most important method of measuring the correlation between the two variables is "Karl Pearson's coefficient of correlation". This is the mathematical method of measuring the degree of association between the two variables say x and y. It is denoted by r and is defined by

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \cdot \sqrt{\sum y^2}}$$

Where $x = X - \bar{X}$ & $y = Y - \bar{Y}$

Multiple correlation analysis is the measurement of relationship between a single dependent variable and no. of independent variables. The multiple correlation coefficients are computed by using the following formula.

$$R_{1.23} = \sqrt{\frac{r_{12}^2 + r_{13}^2 - 2r_{12} \cdot r_{13} \cdot r_{23}}{1 - r_{23}^2}} \sqrt{\frac{r_{12} + r_{13} - 2r_{12} \cdot r_{13} \cdot r_{23}}{1 - r_{23}^2}}$$

$$R_{2.13} = \sqrt{\frac{r_{12}^2 + r_{23}^2 - 2r_{12} \cdot r_{13} \cdot r_{23}}{1 - r_{13}^2}}$$

$$R_{3.12} = \sqrt{\frac{r_{12}^2 + r_{23}^2 - 2r_{12} \cdot r_{13} \cdot r_{23}}{1 - r_{12}^2}}$$

Where

$$R_{12} = \frac{\sum x_1 \cdot x_2}{\sqrt{\sum x_1^2 \cdot \sum x_2^2}} \quad R_{23} = \frac{\sum x_2 \cdot x_3}{\sqrt{\sum x_2^2 \cdot \sum x_3^2}} \quad R_{13} = \frac{\sum x_1 \cdot x_3}{\sqrt{\sum x_1^2 \cdot \sum x_3^2}}$$

Regression Analysis

Regression is the statistical tool which is used to determine statistical relationship between two or more variable and to make estimations of one the basis of another variable.

The regression equation of y on x is give by

$$Y - \bar{Y} = b_{yx} \cdot (X - \bar{X})$$

Where $\bar{X}$ and $\bar{Y}$ = Arithmetic means of X and Y series respectively

$$\text{And } b_{yx} = \frac{N \sum xy - \sum x \cdot \sum y}{N \sum x^2 - (\sum x)^2}$$

The regression equation of x and y is give by

$$(x - \bar{x}) = b_{yx} \cdot (Y - \bar{Y})$$

$$\text{Where, } b_{yx} = \frac{N \sum XY - \sum X \cdot \sum Y}{N \sum Y^2 - (\sum Y)^2}$$

Multiple regression analysis is a statistical device which is used to estimate the value of one dependent variables when the values of two or more independent variable are known or given.

There exists a best square regression plane fitting a set of N points (X_1, X_2, X_3) in a three dimensional scatter diagram. The regression equation of x_1 on x_2 and x_3 can be written as

$$X_1 = a + b_1 x_2 + b_2 x_3$$

Where a, b_1 and b_2 are the parameters of the equation whose value are to be determine.

To determine the values of a, b_1 and b_2 the following three normal equation are solved simultaneously,

$$\sum x_1 = Na + b_1 \sum x_2 + b_2 \sum x_2 x_3$$

$$\sum x_1 x_2 = a \sum x_2 + b_1 \sum x_2^2 + b_2 \sum x_2 x_3$$

$$\sum x_1 x_3 = a \sum x_3 + b_1 \sum x_2 x_3 + b_2 \sum x_3^2$$

Similarly, the multiple regression equation of x_2 on x_1 and x_3 is given by,

$$X_2 = a + b_1 x_1 + b_2 x_3$$

The values of parameters a, b_1 and b_2 are determined by solving the following three normal equations simultaneously,

$$\sum x_2 = Na + b_1 \sum x_1 + b_2 \sum x_3$$

$$\sum x_1 x_2 = a \sum x_1 + b_1 \sum x_1^2 + b_2 \sum x_1 x_3$$

$$\sum x_2 x_3 = a \sum x_3 + b_1 \sum x_1 x_3 + b_2 \sum x_3^2$$

Again, the multiple regression equation of x_3 on x_1 and x_2 is given by:

$$x_3 = a + b_1 x_1 + b_2 x_2$$

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_nx_n$$

The multiple regression equation of dependent variables y on n Independent variable $x_1, x_2, x_3, \dots, x_n$ generally be expressed as:

$$Y = a + b_1x_1 + b_2x_2 + \dots + b_nx_n$$

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

The basic objective of this study is to examine the cost structure and assess the proposition of different cost elements in total cost of salt trading corporation limited. In order to accomplish these objectives the cost of STC will be analyzed into different types of costs and their relationship. This research has focused mainly on five years data from FY 2058/ 059 to 2062/ 063. This chapter presents and analyzes the cost data of STC in detail.

4.2 Cost Structure of STC

Cost is an important factor in any business organization, which determines the level of profit and so much affected from each and every decision taken by management in each working process. Every business organization, either government investment or private investment has a purpose to generate profit as far as possible. For this purpose, it is necessary to reduce prime cost, factory cost, administration cost, selling and distribution cost etc. In each work, the cost should be recorded obviously. The cost should not account on the basis of estimation and it should be recorded at the time of occurrence.

For the systematic record of cost, organization should have established a separate costing department. Since STC is not manufacturing company so there is less role of production cost. The main costs are administrative and selling and distribution cost. For the study purpose costs are classified according to variability also.

4.3 Classification of Cost

This study has attempt for the analysis of cost structure of STC. The cost of STC are classified in to different parts i.e. according to function wise variable wise, element wise which are shown in appendix- I.

4.3.1 According to Element Wise

All costs are capable of classification in to three distinct elements:

- Material
- Labour
- Overhead

Material is treated as the first element of cost because without material nothing can be manufactured. STC also invests large amount in purchasing trading goods which are assumed as material. Labour costs, in a broad sense, are composed of all expenditure incurred for employees. Labour is generally classified as direct and indirect labour. Direct labour comprises the entire worker's who are directly involved on specific production output. The labours who support production indirectly are classified as indirect labour. Overhead cost is the part of total cost which cannot directly identification with specific products or jobs. Classification of cost of each element, that enters into products both for valuation purposes and for managerial control of operation.

Following table represents the summary of cost classification according to element wise for five years.

Table 1
Element Wise Cost

Amount in Rs. '000				
Year	Material Cost	Labour Cost	Overhead Cost	Total Cost
2061/062	1937235347 (95.92%)	36868546 (1.83%)	45423776 (2.25%)	2019527669
2062/063	1592061174 (94.74%)	37780968 (2.25%)	50584131 (3.01%)	1680426273
2063/064	1644540991 (94.78%)	45029682 (2.60%)	45449094 (2.62%)	1735019767
2064/065	1837630785 (94.14%)	57846988 (2.96%)	56506849 (2.90%)	1951984622
2065/066	2813514025 (95.18%)	69887390 (2.36%)	72576825 (2.46%)	2955978240

Source: Annual Report of STC

Figure 1
Element Wise Cost

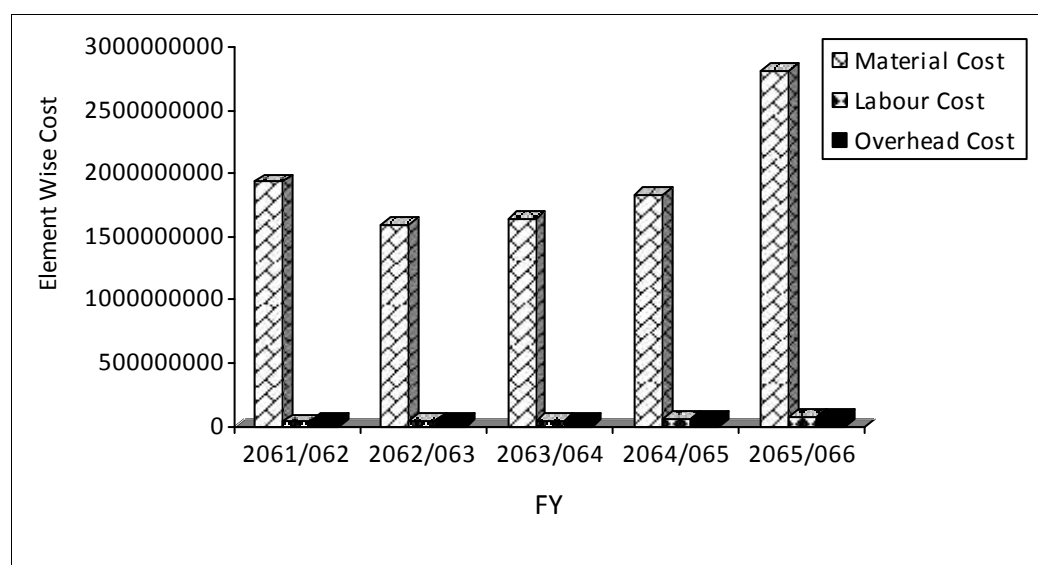


Table 1 shows the elements wise cost structure of STC. In this table, the total cost is classified into material, labour and overhead cost. According to the cost figure, it is found that the material cost has covered around 95.75% of total cost. Material cost is increased in first three years, then after, it is decreased. As a result the total cost is also be fluctuated. The second element of total cost is labour cost. The labour cost of STC has covered around 2% of total cost. If the labour cost is also in fluctuating trend which is presented in above table and graph. Similarly, the another element of cost is overhead cost. Overhead cost of STC is seemed in fluctuating trend. The overhead cost has covered 2.25% of total cost.

4.3.2 According to Variability

According to variability, cost of STC can be classified into fixed cost, semi - variable cost ad variable costs. This study does not cover the semi variable cost because the general perspective of variability has been considered i.e. fixed and variable cost. Variable cost hanged with the change in volume of product. For example direct material, direct labour etc. Fixed costs are those that will not change in total over wide range of volume. Salaries, rent, depreciation etc. are the examples of fixed cost. The variable wise cost structure of STC has show in the following table.

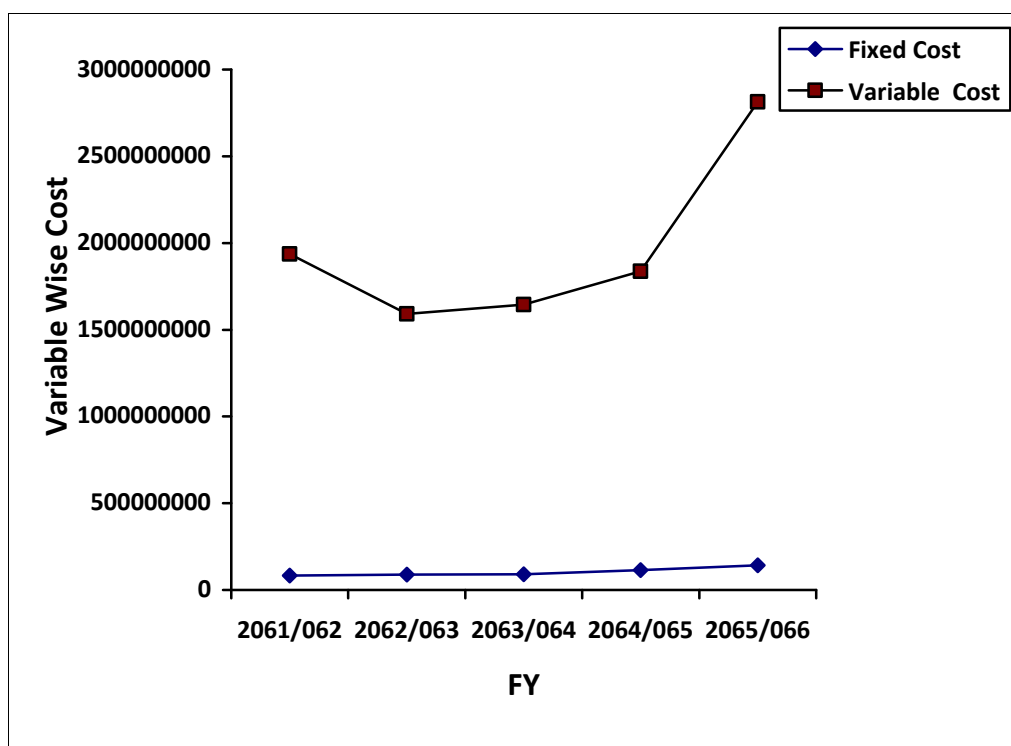
Table 2
Variable Wise Cost

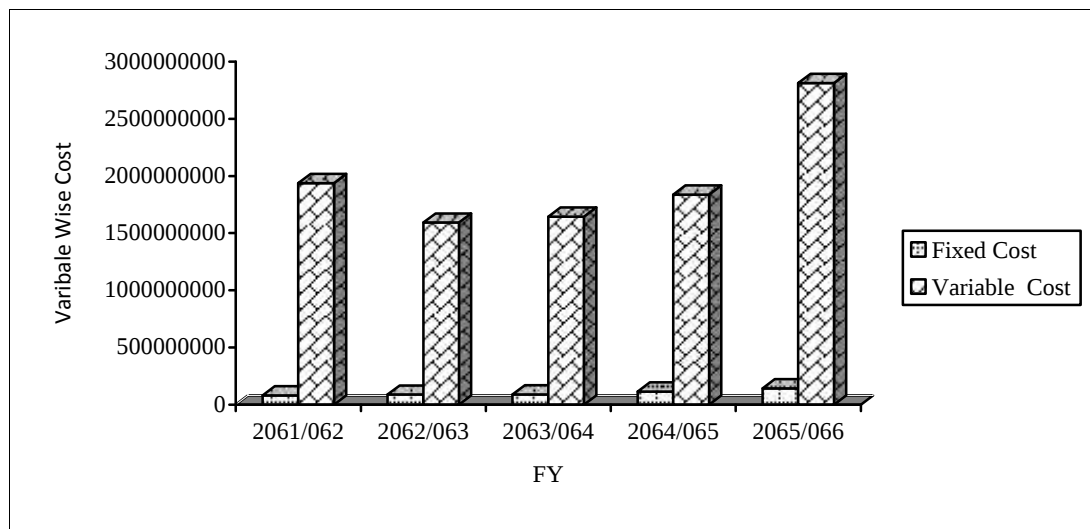
Amount in Rs. '000

Year	Fixed Cost	Variable Cost	Total Cost
2061/062	82292322	1937235347	2019527669
2062/063	88365099	1592061174	1680426273
2063/064	90478776	1644540991	1735019767
2064/065	114353837	1837630785	1951984622
2065/066	142464215	2813514025	2955978240

Source: Annual Report of STC

Figure 2
Variable Wise Cost





In this study, cost of STC has been classified according to the variability also i.e. fixed cost and variable cost. The above table shows the total amount of fixed cost and variable cost for five years. From, the above table, it can be seen that the fixed cost has been increasing up to FY 2065/066. The fixed cost has covered around 5% of total cost. It means the corporation has spending very small part of cost for fixed cost. It is due to lack of cost analysis. Costs are not clearly separated as fixed and variable. Variable cost has taken 95% part of total cost. It means, the corporation has spending the large part of total cost for variable cost.

4.3.3 According to Function

According to this classification, the costs are divided in the light of different parts of basic managerial activities involved in the operation of business affairs. It leads to grouping of cost according to the broad divisions or a function of a business undertaking i.e. production cost represents the prime cost plus absorbed production overhead. Administration cost refers to the cost of management and administration which cannot be directly related to production. Selling and distribution cost refers to the cost incurred in securing orders, travelling expenses,

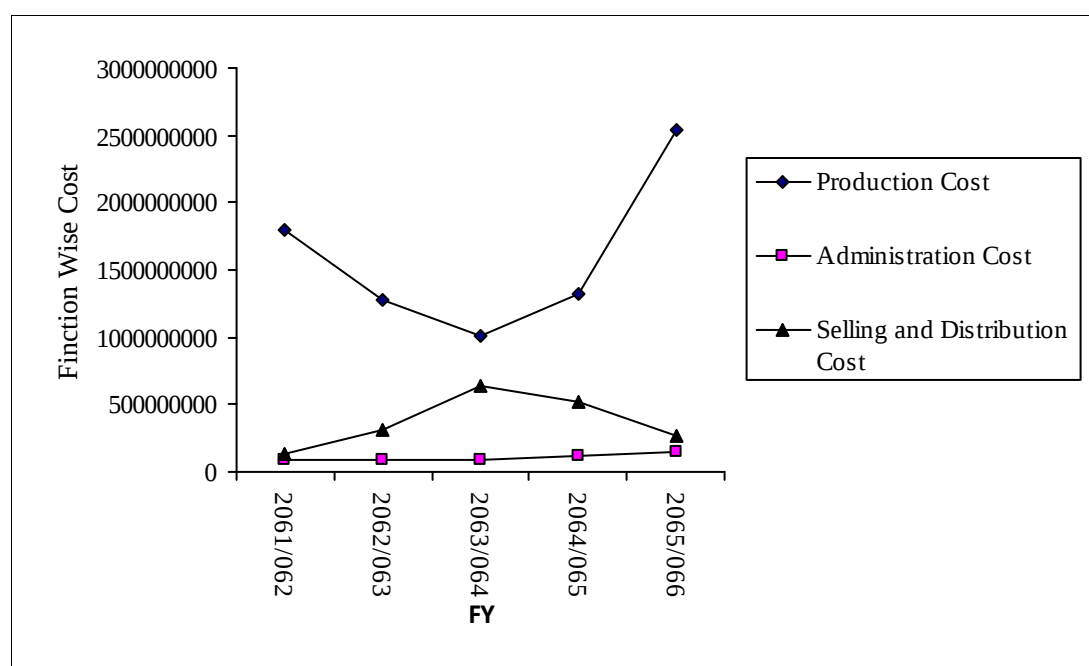
rent of sales room, training of sales staff etc. The cost structure of STC according to function has shown in the following table in detail.

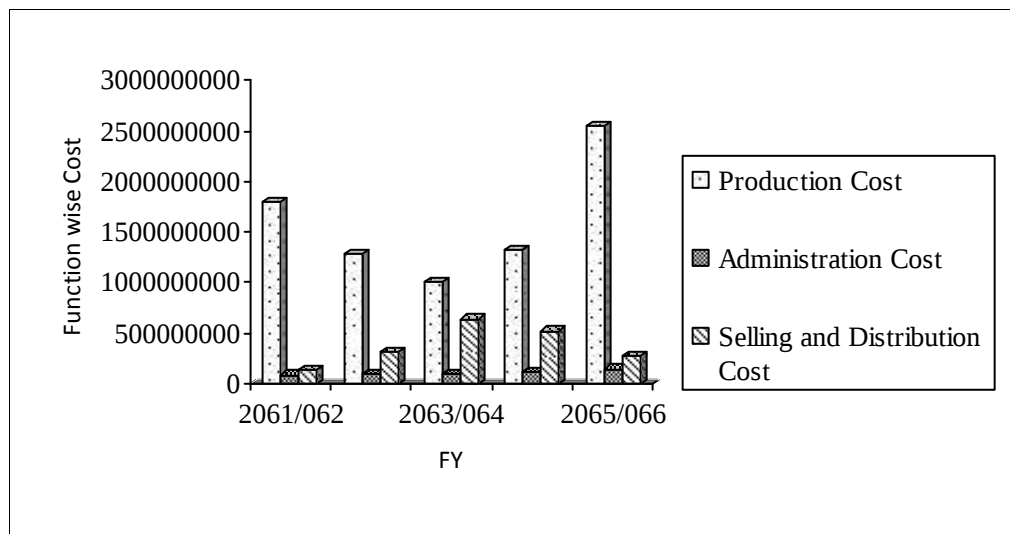
Table 3
Function wise Cost

Amount in Rs. '000				
Year	Production Cost	Administration Cost	Selling and Distribution Cost	Total Cost
2061/062	1798400263	82292322	138835084	2019527669
2062/063	1279714920	88365099	312346254	1680426273
2063/064	1008270105	90478776	636270886	1735019767
2064/065	1317236165	114353837	520394620	1951984622
2065/066	2546760204	142464215	266753821	2955978240

Source: Annual Report of STC

Figure 3
Function wise Cost





The cost of STC has classified according to the function i.e. production cost, administration cost and selling and distribution cost. The amount of each cost for last five year has been shown in table no 3 from the above table, it can be seen that the production cost has covered the larger part of total cost. The production cost covered averagely 88.45% selling and distribution cost which are 4.5% and 7.5% respectively.

4.4 Cost Trend of STC

4.4.1 Element wise Cost Trend

Table 4
Element wise Cost, its Index and ARPC of STC

Amounts in Rs. '000

Year	Material			Labour			Overhead		
	Cost (Rs.)	Index (%)	ARPC (%)	Cost (Rs.)	Index (%)	ARPC (%)	Cost (Rs.)	Index (%)	ARPC (%)
2061/062	1937235	100	-	36868	100	-	45423	100	-
2062/063	1592061	82.2	(17.8)	37780	102.5	2.5	50584	111.4	11.4
2063/064	1644540	84.9	2.7	45029	122.1	19.6	45449	100	(11.4)
2064/065	1837630	94.9	10	57846	156.9	34.8	56506	124.4	24.4
2065/066	2813514	145.2	50.3	69887	189.6	32.7	72576	159.8	35.4

The table no. 4 has shown the element wise cost trend to STC for five years. For the simple analysis, index of each cost for each year has been calculated by assuming 2061/062 as base year. Similarly, ARPC i.e. Annual Rate of Percentage change for each cost for five years has been shown in the above table.

The above table indicates the fluctuating trend of material cost of STC. The material cost of STC has decreased in FY 2062/063 by ARPC has been increasing until the FY 2065/066 by positive ARPC of 2.7%, 10% and 50.3% respectively. The highest material cost has in 2065/066. In this year the material cost has increased by 5.3% from the previous year 2064/065.

The above table has show the fluctuating trend of labour cost of STC. The labour cost has increased from FY 2061/062 to FY 2065/066 by positive ARPC of 2.5%, 19.6%, 34.8% and 32.7% respectively. The labour cost is highest in FY 2065/066 by 32.7% which means the balour 2065/066. The cost difference is Rs. 12041 thousands only.

The above table also indicated the fluctuating trend of overhead cost of STC. The overhead cost has increased in FY 2062/063 by 11.4% in FY 2063/064 and has started to increase up to FY 2063/064 and has started to increase up to FY 2065/066. The ARPC by 35.4%. It means the overhead cost has increased by 35.4% in 2065/066 from the previous year.

4.4.2 Variable wise Cost Trend

Table 5
Variable wise, its Index and ARPC of STC

Year	Fixed Cost			Variable Cost		
	Cost (Rs.)	Index (%)	ARPC (%)	Cost (Rs.)	Index (%)	ARPC (%)
2061/062	82292	100	-	1937235	100	-
2062/063	88365	107.4	7.4	1592061	82.2	17.8
2063/064	90478	109.9	2.5	1644540	84.9	2.7
2064/065	114353	138.9	1029	1837630	94.9	10
2065/066	142464	1	34.2	2813514	145.2	50.3

The table no.5 represents the variable wise cost trend of STC, its index and ARPC i.e. annual rate of percentage change by assuming 2061/62 as base year.

The above table has shown that the fixed cost of STC has in increasing trend. It has increased up to FY 2065/066 by 7.4%, 2.5%, 29%, and 34.2% respectively. The variable cost of STC is in fluctuating trend. It has decreased in FY 2062/63 by negative ARPC of 17.8% then after it has increased up to FY 2065/066 by 2.7%, 10% and 50.3% respectively. The highest ARPC is recorded in FY 2065/066. The highest variable cost is Rs.2813514 thousand.

4.4.3 Function Wise Cost Trend

Table 6
Function wise Cost, its index and ARPC of STC

Amounts in Rs. '000

Year	Production Cost			Administration Cost			Selling & Distribution Cost		
	Cost (Rs.)	Index (%)	ARPC (%)	Cost (Rs.)	Index (%)	ARPC (%)	Cost (Rs.)	Index (%)	ARPC (%)
2061/062	1798400	100	-	82292	100	-	138835	100	-
2062/063	1279714	71.2	(28.8)	88365	107.4	7.4	312346	225	125
2063/064	1008270	56.1	(15.1)	90478	110	2.6	636270	458.3	233.3
2064/065	1317236	73.2	17.1	114353	139	29	520394	374.8	(83.5)
2065/066	2546760	141.6	68.4	142464	173.1	34.1	266753	192.1	(182.7)

The above table no. 6 represents for function wise cost trend of STC. I.e. production cost, administration cost and selling and distribution cost for five years. The table also reflects the index and ARPC (Annual Rate of Percentage Change) of each cost for five years. The FY 2061/062 has taken as the base year for calculating the index of each cost.

The above table has indicated the fluctuation trend of production cost of STC. The production cost has decreased in FY 2062/063 and FY 2063/064 and again increased up to FY 2065/066. The highest production cost is incurred in FY 2065/066 with Rs. 2546760 thousand. The lowest ARPC is measured in FY 2063/064 of 15.1% negative ARPC.

The administration cost of STC is in increasing trend with different ARPC. It has increased by 7.4%, 206%, 29% and 34.1% respectively up

to FY 2065/066. The highest ARPC of administration cost is measured in FY 2065/066 by 34.1%. It indicates that cost has increased by 34.1%. The cost difference of this year is Rs. 28111.

The selling and distribution cost of STC is fluctuating. It has increased up to FY 2063/064 then after it started to decrease up to FY 2063/066. The highest selling and distribution cost is in FY 2063/064 with Rs.6362 to thousand and 458.3% of ARPC.

4.5 Cost Analysis on the Basic of Ratios

Cost analysis on the basis of rations thus been attempted to analyses the cost of STC with the help of sales and profit of the corporation. Cost to sales and cost to net profit rations and their mean. Standard deviation and coefficient of variation have been calculated. The calculated values have summarized in the table as below.

4.5.1 Cost to Sales Ratio of STC

Appendix-V supports for the calculation of cost to sales ratio and their mean, standard deviation and coefficient of variation on the basis of different cost structure. The following table represents element wise to sales ration. For the five year (2061/062 t o 2065/066).

Table 7
Element Wise Cost to Sales Ratio

Year	Sales	Material : Sales		Labour : Sales		Overhead : Sales	
		Cost	Ratio	Cost	Ratio	Cost	Ratio
2061/062	2193935	1937235	0.883	36868	0.017	45423	0.020
2062/063	1850551	1592061	0.860	37780	0.020	50584	0.027
2063/064	1916218	1644540	0.856	45029	0.025	45449	0.024
2064/065	2138957	1837630	0.859	57846	0.027	56506	0.026
2065/066	3190432	2813514	0.882	69887	0.022	72576	0.023
		Total	4.34		0.111		0.120
		Mean ($\bar{x}$)	0.868		0.022		0.024
		S.D.(σ)	0.012		0.004		0.002
		C.V.	1.38%		18.2%		8.33%

In the above table 7, the element wise costs to sales ratios of STC are shown. The material sales ratios, labour cost to sales ratios and overhead cost to sales ratios have in fluctuating trend during the five years period. The table has shown that the material cost to sales ratio has highest mean and standard deviation. It indicates that the material cost to sales ratios and have less consistency in the ratios during the last five years. On the labour cost to sales ratios and overhead costs to sales ratios have more uniformity.

Table 8
Variable wise Cost to Sales Ratio

Year	Sales	Fixed Cot: Sales		Variable Cost: Sales	
		Cost	Ratio	Cost	Ratio
2061/062	2193935	82292	0.038	1937235	0.882
2062/063	1850551	88365	0.048	1592061	0.860
2063/064	1916218	90478	0.047	1644540	0.858
2064/065	2138957	114353	0.053	1837630	0.859
2065/066	3190432	142464	0.045	2813514	0.882
		Total	0.231		4.341
		Mean ($\bar{x}$)	0.046		0.868
		S.D.(σ)	0.005		0.011
		C.V.	10.87%		1.27%

In the above table the variable wise cost to sales ratios of STC is shown. Variable cost to sales ratio has higher mean and standard deviation. It indicates that there are dispersed in ratio from the mean in variable cost to sales ratios. But the coefficient of variation has highest of fixed cost to sales ratio. It focused for the less consistency in fixed cost to sales ratios.

Table 9
Function wise Cost to Sales Ratio.

Year	Sales	Production : Sales		Administration : Sales		Selling and Distribution: Sales	
		Cost	Ratio	Cost	Ratio	Cost	Ratio
2061/062	2193935	1798400	0.819	82292	0.038	138835	0.063
2062/063	1850551	1279714	0.692	88365	0.048	312346	0.169
2063/064	1916218	1008270	0.526	90478	0.047	636270	0.332
2064/065	2138957	1317236	0.616	114353	0.053	520394	0.243
2065/066	3190432	2546760	0.798	142464	0.045	266753	0.084
		Total	3.451		0.231		0.891
		Mean ($\bar{x}$)	0.069		0.046		0.178
		S.D.(σ)	0.110		0.048		0.100
		C.V.	15.94%		10.43%		56.18%

In the above table, the function wise cost to sales ratios has shown. All the ratios i.e. production cost to sales, administration cost to sales and selling and distribution cost to sales are in fluctuating trend during the last five years. The production cost to sales ratio has incurred more dispersed from mean. The selling and distribution cost to sales ratio has highest coefficient of variation. It means the ratios are less consistency or uniformity than other ratios.

4.5.2 Cost to Profit Ratios of STC.

Table 10

Element wise Cost to Profit Ratios.

Year	Profit	Material : Profit		Labour: Profit		Overhead : Profit	
		Cost	Ratio	Cost	Ratio	Cost	Ratio
2061/062	174407	1937235	11.11	36868	0.211	45423	0.260
2062/063	170125	1592061	9.36	37780	0.222	50584	0.297
2063/064	181198	1644540	9.07	45029	0.248	45449	0.251
2064/065	186972	1837630	9.83	57846	0.309	56506	0.302
2065/066	234454	2813514	12.00	69887	0.298	72576	0.309
		Total	51.37		1.288		1.419
		Mean ($\bar{x}$)	10.24		0.26		0.28
		S.D.(σ)	10.84%		0.039		0.023
		C.V.			15%		8.21

The above table no.10 had represented the element wise cost to profit ratio of STC. During the last five years. All the ratios are in fluctuating trend. During ratios has highest mean and standard deviation which means the material cost to profit ratios are more dispersed than other cost to profit ratios. On the other hand labour cost to profit ratio has incurred the highest coefficient of variation, which means less consistency or uniformity among the ratios.

Table 11
Variable wise Cost to Profit Ratios.

Year	Profit	Material : Profit		Labour: Profit	
		Cost	Ratio	Cost	Ratio
2061/062	174407	82292	0.472	1937235	11.11
2062/063	170125	88365	0.519	1592061	9.36
2063/064	181198	90478	0.499	1644540	9.07
2064/065	186972	114353	0.612	1837630	9.83
2065/066	234454	142464	0.607	2813514	12.00
		Total	2.709		51.37
		Mean ($\bar{x}$)	0.542		10.24
		S.D.(σ)	0.057		1.11
		C.V.	10.52%		10.84%

In the above table, variable wise costs to profit ratios are shown. The different cost to profit ratios i.e. fixed cost to profit ratio and variable cost to profit ratios are in fluctuating trend. The highest mean and standard deviation are recorded in variable cost to profit ratios. It indicates that, there is highly dispersed among the ratios in the variable cost to profit ratio. The highest coefficient of variation is incurred in variable cost to profit ratio, which means these ratios are less consistent or uniform.

Table 12
Function wise Cost to Profit Ratio.

Year	Profit	Production : Profit		Admission: Profit		Selling and Distribution Profit	
		Cost	Ratio	Cost	Ratio	Cost	Ratio
2061/062	174407	1798400	10.31	82292	0.472	138835	0.796
2062/063	170125	1279714	7.52	88365	0.519	312346	1.836
2063/064	181198	1008270	5.56	90478	0.499	636270	3.511
2064/065	186972	1317236	7.05	114353	0.612	520394	2.783
2065/066	234454	2546760	10.86	142464	0.607	266753	1.138
		Total	41.3		2.709		10.06
		Mean ($\bar{x}$)	8.26		0.54		2.01
		S.D.(σ)	2.013		0.057		1.01
		C.V.	24.37%		10.61%		50.24%

The above table has shown the different cost to profit ratios according to function wise cost. All the ratios i.e. production to profit, administration to profit and selling and distribution to profit are in fluctuating trend. The highest mean and standard deviation are incurred in production cost to profit ratio which means these ratios have more dispersed than other ratios. The highest coefficient of variation is incurrent in selling and distribution cost to profit ratios which mean these ratios have less consistency.

4.6 Inter-Relationship of Cost, Volume and Profits

The analytical technique used to study the behavior in profit in response to the change in volume, costs and proves is called cost volume profit analysis. It is a device used to determine the usefulness of profit planning process of the firm. In fact, the entire field of profit planning has become associated with the CVP inter-relationships. CVP analysis helps to management for seeking the most profitable combination of costs and volume. A dynamic management therefore uses the CVP analysis to predict and evaluate the implication of its short run decisions about fixed costs, variable costs, volume and selling price for its profit plans on continuous basis.

Contribution analysis involves a series of analytical techniques used to determine and evaluate the effects on profits of changes in sales volume, sales price, fixed costs and variable costs. It focuses on contribution margin. This is difference amount of total sales and variable costs.

The contribution margin ratio may provide some useful information to management. If a firm is operating at loss, the contribution margin ratio indicates how much the net loss will either diminish or increase with each dollar change in sales. A high contribution margin ratio will cause greater profit than a smaller contribution margin ratio as volume in dollars increases above the breakeven point. The opposite holds when sales volume is below the breakeven point the higher the contribution margin ratio.

Break even analysis has wide applicability for managerial decisions as to pricing cost alternatives. Sales mix, channels of distribution, possible

sales promotion, addition or deletion of product lines, acceptance of special orders, entering in foreign markets and changing plant layout.

The study of break even analysis can be made by (i) mathematical relationship between cost volume profit and (ii) by preparing break even charts. STC has been practicing the systematic costing system but not in sufficient. There is still lack of classification of cost behavior. Even point for its planning and management purpose. This study has exercised to calculate break even position of STC by assuming the following factors.

- The cost of STC has classified into fixed cost and variable cost.
- Only the accounts of FY 2064/065 have taken.
- Opening stock and closing stock are not changed.
- Selling price, fixed cost, variable costs are assumed to be remain constant.
- Activity base is selected in terms of sales revenue.

Total sales revenue = Rs. 2138957424

Total fixed cost = Rs. 114353837

Total variable cost = Rs. 1837630785

Profit = Rs. 186972802

Calculation of BEP

Contribution Margin (CM) = Sales revenue - Variable cost

= Rs. (2138957424 - 1837630785)

= Rs. 301326639

Profit/ Volume Ratio = $\frac{\text{CM}}{\text{sales}}$

= $\frac{\text{Rs. 301326639}}{\text{Rs. 2138957424}}$

$$= 0.1408 = 14.08\%$$

Variable cost Ratio = 1 - P/V ratio

$$= 1 - 0.1408 = 0.8592 = 85.92\%$$

$$\text{BEP in Rs.} = \frac{\text{Fixed Cost}}{\text{P/v Ratio}}$$

$$= \frac{\text{Rs. } 114353837}{0.1408}$$

$$= \text{Rs. } 812172137$$

$$\text{Margin of Safety} = \frac{\text{Profit}}{\text{P/v ratio}}$$

$$= \frac{186972802}{0.1408}$$

$$= \text{Rs. } 1327931832$$

The above calculation of breakeven point has shown the operating position of STC of FY 2064/065. It is operating above the break even i.e. the corporation is earning profit.

4.7 Arithmetic Mean, Standard Deviation and Coefficient of Variation.

The arithmetic mean, standard deviation and coefficient of variations of different costs for the five years (i.e. 2061/ 062 to 2065/066) have calculated in appendix I and summarized as below.

Table 13
Arithmetic Mean, Standard Deviation and Coefficient of Variation.
Amount in '0000'

Cost	Mean	Standard Deviation	Coefficient of Variation
Element wise Cost			
- Material Cost	196499.4	44243.47	22.52%
- Labour Cost	4947.6	1266.57	25.60%
- Overhead Cost	5410.2	1009.58	18.66%
- Variable Wise Cost			
- Fixed Cost	10358.6	2229.09	21.52%
- Variable Cost	196499.4	44243.47	22.52%
Function Wise cost			
- Production Cost	159007.4	54183.27	34.07%
- Administration Cost	10358.6	2229.09	21.52%
- Selling & Distribution Cost	37491.6	17934.37	47.83%

From the above table no 13. It can be analyzed that the material cost has highest mean and standard deviation on element wise cost structure. It means that, the material cost of different five years is more dispersed. But the labour cost has highest C.V. which indicates the less consistency in labour cost data. In variable wise cost structure variable cost has

higher mean, standard deviation and coefficient of variation. It indicates variable cost data is more dispersed and is less consistency. In function wise cost structure, the production cost has the highest mean and standard deviation which indicates for more dispersed in the data. The selling and distribution cost has the highest coefficient of variation which indicates that there is less consistency among the data.

4.8 Correlation

4.8.1 Correlation Coefficient of Element wise cost Structure

The appendix II supports to show the calculation of simple correlation coefficient and linear multiple correlations of element wise cost i.e. material cost labour cost and overhead cost which have summarized below. The significance of 'r' is tested with the help of probable error P.E.

Table 14
Correlation

Cost Relation	Zero order correlation coefficient (r)	Probable Error (PE)	6 x PE
Material & Labour	$r_{12} = 0.799$	0.109	0.654
Labour & Overhead	$r_{23} = 0.917$	0.048	0.288
Overhead & Material	$r_{13} = 0.882$	0.67	0.402

The above table shows that there is high degree of positive correlation between material and labour cost i.e. $r_{12} = 0.799$, which lies between (-1) and (+1) i.e. $-1 < r < 1$. The labour cost and overhead costs have also

high degree of positive relationship by $r_{23} = 0.917$. Lies between (-1) and (+1). 0.882, which is also lies between (-1) and (+1). The problem error is used to measure the reliability and test of significance of correlation coefficient. Since all the values of zero order correlation coefficients are higher than six times of problem error. So, all correlation coefficients are significant.

Coefficient of multiple correlation of material, labour and overhead cost

Multiple correlation of	Coefficient of Multiple correlation
Material cost on Labour and overhead	$r_{1.23} = 0.882$
Labour cost on material & overhead cost	$r_{2.13} = 0.917$
Overhead cost on material & Labour cost	$r_{3.12} = 0.949$

The coefficient of multiple determinations

$$R_{1.23}^2 = 0.7779$$

All the above three coefficient of multiple correlation lies between 0 and 1. The values of multiple correlation coefficients are closer to 1. This shows the better relationship between variables. The coefficient of multiple determination is 77.79%, which means 77.79% of the total variation in the value of dependent variable x_1 (material cost) has been explained by effect of two independent variable x_2 and x_3 .

4.8.2 Correlation of Function wise Cost Structure

The coefficient of simple correlation and multiple correlations of function wise cost structure i.e. production cost, administration cost and selling and distribution cost have shown in the following table no 15. The significance of 'r' can be tested with the help of problem error (P.E.). Appendix II supports to show the calculation of different values.

Table 15
Correlation of Function wise Cost Structure

Cost	Zero order correlation coefficient	Problem error (P.E.)	6 x P.E.
Production and Administration Cost	$r_{12} = 0.799$	0.1547	0.92
Administration and Selling and Distribution Cost	$r_{23}=0.917$	0.3016	1.8096
Production and Selling and Distribution Cost	$r_{13}=0.882$	0.1660	0.9996

The above table shows that the values of r_{12} , r_{23} and r_{13} are less than 6 P.E. which indicates the simple correlations r_{12} , r_{23} and r_{13} are insignificant.

Coefficient of multiple correlations of production. Administration and selling and distribution costs:

Multiple Correlation of	Coefficient of Multiple correlation
Production cost on administration and selling and distribution costs	$R_{1.23} = 0.9307$
Admission cost on Production and selling and distribution costs.	$R_{2.13} = 0.8747$
Selling and distribution cost on production and administration costs.	$R_{3.12} = 0.8649$

Coefficient of multiple determinations:

$$R^2_{1.23} = 0.8662$$

In the above table, it can be seen that all the coefficient of multiple correlation coefficient lie between 0 and 1. The multiple correlation coefficient $R_{1.23} \geq r_{12}$ and $R_{1.23} \geq r_{13}$; which are the requisites of multiple correlations. The coefficient of multiple determinations is 86.62%, which means 86.62% which of the total variation in the value of dependent variable has been explained by the effect of two independent variable x_2 and x_3 . All the values of multiple correlations are nearer to 1. This indicates for better relationship between the variables.

4.8.3 Correlation of Variable wise Cost Structure

In variable wise cost structure, there are only two variables for study. The most important method for measuring the correlation between two variables is Karl Pearson's coefficient of correlation.

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

$$= \frac{420868947.8}{\sqrt{24844317.21} \times \sqrt{9787423650}}$$

There is positive correlation between two variables (fixed cost and variable cost) is 0.853. The directions of movement of these two variables are same. The fixed cost moves by 0.853 per unit increase in variable cost. The significance of 'r' is tested with the help of Probable error (P.E.)

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{N}} = 0.6745 \times \frac{1-0.853^2}{\sqrt{5}} = 0.08216$$

$$6PE = 6 \times 0.08216 = 0.493$$

4.9 Regression Analysis of Cost Structure of STC

4.9.1 Regression Equation of Element wise Cost Structure

For the calculation of multiple regressions of element wise cost i.e. material cost, labour cost, and over head cost, the deviations from the mean of material, labour and overhead are taken. The appendix III supports for the details calculation of regression equation according to element wise cost.

Let, Material = x_1

Labour = x_2

Overhead = x_3

Where, $x_1 = x_1 - \bar{x}_1$, $x_2 = x_2 - \bar{x}_2$, $x_3 = x_3 - \bar{x}_3$

The multiple regression equation of x_1 , on x_2 and x_3 is

$$x_1 = -1.76 x_2 + 40.64 x_3$$

The multiple regression equation of x_2 on x_1 and x_3 is

$$x_2 = 0.00002x_1 + 1.14 x_3$$

The multiple regression equation of x_3 on x_1 and x_2 is $x_3 = 0.0094x_1 + 0.46 x_2$

4.9.2 Regression Equation of Variable Wise Cost Structure

In variable wise cost structure, only two variables are taken. So, simple regression equation is made for fitting the variables in the regression equation. For this purpose fixed costs (x) and variable costs (y) have taken to show this relationship.

The simple regression equation of y on x is,

$$y = 16.93 x + 21128.3$$

The simple regression equation of x on y is

$$x = 0.043y + 1909.13$$

4.9.3 Regression Equations of Function wise Cost Structure.

There are three variables i.e. production cost, administration cost and selling and distribution cost in function wise cost structure. So, multiple regression equations are calculated by using the deviations from the mean of these variables.

Let, production cost = x_1

Admission Cost = x_2

Selling and Distribution cost = x_3

Where, $x_1 = x_1 - \bar{x}_1$, $x_2 = x_2 - \bar{x}_2$, $x_3 = x_3 - \bar{x}_3$

The multiple regression equation of x_1 on x_2 and x_3 is

$$x_1 = 16.89 x_2 - 2.01 x_3$$

The multiple regression equation of x_2 on x_1 and x_3 is

$$x_2 = - 0.0518 x_1 + 0.105 x_3$$

The multiple regression equation of x_3 on x_1 and x_2 is

$$x_3 = - 0.427 x_1 + 7.22x_2$$

4.10 Computation of Regression Equation of Cost and Profit

The calculation of regression equation of two variables i.e. total cost and total profit has shown in appendix – IV. For this calculation the first variable 'cost' is assumed dependent variable. The following calculation shows the effect of cost over the profit. In which the dependent variable (y) and independent variable (x) assumed.

The regression equation of y on x is,

$$y = 901.39 + 0.048 x$$

4.11 Major Findings

On the basis of the different analysis, observation and informal discussion, the major findings of this research work are presented as below:

- STC has been following the traditional costing system.
- The corporation has been able to increase its sales volume.
- Total cost as well as profit is in increasing trend.
- STC has not analyzed the BEP properly.
- It has not separate costing department for different products.

The other findings of this research work are presented according to different cost elements in below.

a) While costs are divided according to element wise.

- In element wise cost classification, costs are classified in to material cost, labour cost and overhead cost. All three costs are in fluctuating trend.

- The material cost, labour cost and overhead cost cover the 95.75%, 2% and 2.25% part of total cost respectively.
- The material cost has highest ARPC in FY 2065/066 by 50.3% which means the material cost has increased by 50.3% in FY 2065/066.
- The labour cost has highest ARPC in FY 2064/065 by 34.8% which means labour cost has increased by 34.8% which indicates for the increasing of overhead cost by 35.4% in FY 2065/066.
- This study has exercised to calculate the cost to sales ratio of STC in different cost elements of STC. In which the material cost to sales ratio has highest mean and standard deviation which indicates the material cost to sales ratios is more dispersed. It has lowest coefficient of variation, it indicates for high consistent.
- In cost profit ratio, the material cost to profit ratio has highest mean and standard deviation. The highest standard deviation indicates that there is more dispersed in data. Labour cost to profit ratio has highest coefficient of variation which indicates for less consistency in data.
- The three multiple correlation coefficients lie between 0 and 1. $R_{1,23} > r_{13}$ which are requisites of multiple correlation coefficients are nearer to 1 indicate for better relationship among the variables.
- The regression equations of three cost element i.e. material cost (x_1) , labour cost (x_2) and overhead cost (x_3) are:

$$x_1 = -1.76 x_2 + 40.64x_3.$$

$$x_2 = 0.00002 x_1 + 1.14x_3$$

$$x_3 = 0.0094x_1 + 0.46x_2$$

b) While the costs are divided according to variable wise:

- The STC has no practice of segregation to cost into fixed and variable cost.
- The variable cost and fixed cost has covered large part of total cost (i.e. 95%).
- The fixed cost has highest ARPC in FY 2065 / 066 by 34.2% , it indicates the fixed cost has increased by 34.2% in FY 2065 / 066.
- The variable cost has highest ARPC in FY 2065/066 by 50.3% which indicates variable cost has increased by 50.3% in FY 2065/ 066.
- In cost to sales ratio, the variables cost to sales ratio has higher mean and standard deviation whereas, the fixed cost to sales ratio has higher coefficient of variation. The higher standard deviation indicates for more dispersed data and higher coefficient of variation indicates for less consistency among the data.
- In cost to profit ratio, the variable cost to profit ratio has higher mean standard deviation and coefficient of variation.
- The correlation coefficient between fixed cost and variable cost is 0.853. It means there is highly positive correlation between fixed cost and variable cost.
- The probable error is 0.08216 on 6PE = 0.493. The relation is insignificant.
- The regression equations of two variables i.e. fixed cost (x) and variable cost (v) are:

$$y = 16.93 x + 21128.3$$

$$x = 0.043y + 1909.13$$

c) While costs are classified according to function wise:

- In function wise cost classification cost are classified into production cost, administration cost and selling and distribution costs. All the costs are in fluctuating trend.
- The production cost, administration cost and selling and distribution cost cover 88%, 4.5% and 7.5% part of total cost respectively.
- The production cost has highest ARPC in FY 2065/066 by 68.4% administration cost in FY 2065/066 by 34.1% and selling and distribution cost in 2063/064 by 233.35.
- In cost to sales ratio, production cost to sales ratio has highest mean and standard deviation. Distribution cost to sales ratio has highest coefficient of variation. The highest CV indicates less consistency.
- In cost to profit ratio, production cost to profit ratio has highest mean and standard deviation highest coefficient of variation.
- The three coefficient of multiple correlation lie between 0 and 1. $R_{1.23} > r_{13}$ which are requisites for coefficients of multiple correlation. The values of multiple correlations near to 1 indicate that there is better relationship among the variables.
- The regression equations of three variables i.e. production cost (x_1) ; administration cost (x_2) and selling and distribution cost (x_3) are as;

$$x_1 = 16.89 x_2 - 2.01 x_3$$

$$x_2 = 0.0518 x_1 - 0.105 x_3$$

$$x_3 = -0.427 x_1 + 7.22 x_2$$

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Slat Trading Corporation has been serving to its customers very honestly and continuously right after its establishment. It is able to earn satisfactory profit in recent years. Success of any enterprises basically depends on the strength of management along with functional aspects and modeling them to achieve the company's objectives. Most of the organizations do not practice new accounting tools and techniques. Out of these techniques, cost accounting tools are very useful for planning and decision purpose. The STC as still is following traditional costing system as well as classification of cost.

This study has conducted to examine the cost structure and cost system followed by STC. This study is based on secondary data provided by STC and has been done to fulfill the partial requirement of master's of business studies. The whole study has been divided into five chapters of different aspects. The summary of each chapter can be presented in the following paragraphs.

The first chapter provides the brief introduction of this study and salt trading corporation. The main objective of this study is to analyze the cost structure of STC.

The second chapter is related to the review of various books, reports, previous research etc. The conceptual framework and review of related studies has been presented separately.

The third chapter explains about the methodology used. The secondary data from FY 2061/062 to 2065/066 have been analyzed. Descriptive and analytical research design is used. Financial along with statistical tools are used for analysis.

The fourth chapter contains the presentation and analysis of data, various ratios correlation analysis, regression analysis has been used to analyse the cost structure of STC.

The fifth chapter is the concluding chapter and explains about the conclusion, summary and recommendations are presented separately.

The calculations of numerical value have been presented in the appendixes.

5.2 Conclusion

The following conclusions have been made based on the cost structure analysis of STC.

- STC has been able to increase its sales and profit.
- There is some lack of proper practice of CVP analysis.
- The STC has no systematic planning of cost in a scientific way.
- The BEP in Rs. is 81217237 for STC.
- The variable cost ratio and PIV ratio are 85.92% and 14.08% respectively.

The some remarkable conclusions are summarized as below:

a) While costs are classified according to element wise.

- The material or purchase cost has covered the major part of total cost by 95.75%.
- The material cost has highest mean and standard deviation, but the labour cost has highest coefficient of variation which indicates for less consistency in the given data.
- The coefficient of multiple correlation shows that there is better relationship among materials costs, labour cost and overhead cost.

b) While the costs are classified according to variable wise.

- The variable cost has covered the major part of total cost by 90%.
- There is fluctuating trend in variable cost so the company has to practice for maintaining the control over variable cost.
- The fixed cost has been slightly increasing. The increasing trend is highest in FY 2065/066 by 34.2% ARPC.
- The variable cost has higher mean and standard deviation, where as fixed cost has higher coefficient of variation.
- Variable costs are more consistent then fixed costs.
- There is positive correlation between fixed cost and variable cost by 0.853.

c) While the costs are classified according to function wise.

- The production cost has covered the major part of total cost i.e. 88%.
The highest Production cost always increases cost of product.
- STC has been spending only 7.5% of total cost for selling and distribution.
- Production cost has highest mean and standard deviation.

- Selling and distribution cost has highest coefficient of variation which indicates for less consistency in the given data.
- The coefficient of multiple correlations reflects for better relationship between the variables.

5.3 Recommendations

Most of the organizations investing huge amount of capital are suffering from loss due to inefficiency and mismanagement. Nowadays, the concept of globalization has emerged. The new technologies are developed and transferred from developed countries to underdeveloped countries. In this situation organizations should formulate new strategies in global perspective. The accounting system must be transparent. The cost is one of the factors, which determines the level of profit. So organizations should try to reduce cost by using the different cost accounting tools. Thus the recommendations based on the findings of this research study of cost structure of STC are as follows:

- STC should maintain the record of cost in a scientific way.
- STC has to create separate cost department for the cost planning purpose.
- STC has to analyze BEP which helps to manage and control over sales and cost.
- STC should evaluate which products are more profitable and which products are less profitable.
- STC should try to increase the relationship between profit and cost.
- The material labour and overhead cost should be recorded clearly so that the controlling measure can be taken to reduce their growth rate.
- The variable cost ratio is too high i.e. 85.92% so the corporation has to reduce variable cost.
- The administration costs covered unproductive cost which must be avoided.

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