

CHAPTER I

INTRODUCTION

1.1 Background

Cost has been defined as classifying, recording, and appropriate allocation of expenditure for the determination of the costs of products or services; and for the presentation of the suitably arranged data for purposes of control, and guidance of the management. It includes the ascertainment of the cost of every order, job, contract, process, services or such unit of output as may be appropriate. It deals with the cost of production, selling and distribution. Costing means such an analysis of information to enable management to know the cost of production and selling that is, the cost of various products and services and also to know how the total cost has formed. It is thus the provision of such analysis and its classification of expenditure as well as enables the total cost of any particular unit of production or service to be ascertained with reasonable degree of accuracy and at the same time to disclose exactly how such total cost is constituted lie.

Cost control mechanism of the organization enable to make the management to take right decision at right time. It is possible through the cost accounting principles. Cost accounting is the applications of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information these for the purposes of, managerial decision making. 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 process 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 efforts 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.

Cost accounting is a quantitative method that accumulates, classifies, summaries and interprets information for three major purpose that is 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 accounts of may be made. It defines cost accounting as “that part of management accounting which establishes, budgets and standard costs and actual cost of operation, process, department or product and the analysis of variances, profitability or social use of funds.” The cost department is a part of information system, a large data and record keeping unit, which in turn provides past, present and future data. The cost department is responsible for keeping record associated with the accounting for materials, labor, and overhead. To attain the greatest usefulness, the cost department must not only record but also analyze all cost of manufacturing, marketing, and administration for use by management in planning and control. It must in addition, issue significant control reports and other decision-making data to executives, superintendents, department heads, and foremen, which assist in controlling and in improving cost and operations. The need of prompt issuance of reports and statements must alert the accountants to modern developments and techniques in the field of communications. Cost control needs or profit opportunities have been delayed or missed because of poor communications. The analysis of cost and the preparation of reports are greatly facilitated through proper sectioning of functions generally listed under the cost department. Proper coordination is also needed with the other functions closely allied with cost accounting for which separate departments or sections are often set; namely budget and cost analysis. This functional unit should come under the supervision of controller. The performance of the functions of the cost departments 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 the presentation of costs and revenues for operations and transactions already experienced. When issuing cost control reports, he is working in the past. In the developing costs for planning purposes, the accountant is concerned with future.

Since the cost data depend upon proper, correct, and timely information from all level of the organization, cost accounting becomes a cooperative venture involving all departments of the company. It is educational problem of top management, the

controller, and the controller's staff to make all employees cost conscious. For planning purposes, costs 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 via analytical tools that express more vividly and forcefully the multidimensional aspects of managerial problems. For example, break even 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 the techniques of linear programming for profit maximization or cost minimization models that have become part and parcel of the information system available to management. Budgeting and planning is a highly significant management functions. The accountants help to bring together the budget estimates and coordinate them into a comprehensive plan for the future. Sales estimates expressed the physical units are translated into rupees. Production requirement are planned, costs are determined, and all phases of business operation are interlocked to form a master guide. By following this plan, the management will able to predict and result of business operations and the financial position at some later date.

Cost is conventionally used as the basis of accountability. Assets when acquired under normal circumstances are recorded at the price arrived at by negotiation between two independent parties dealing at arms length. Simply stated, the cost of an assets to the purchaser is the price that he must pay now or later to obtain it. The fair value of the asset is not relevant in recording the transaction. A purchaser may acquire an asset at a cost that is greater or less than the fair value determined in the market place. If so, he accounts for the assets at his cost, value not with standing. Accounting for cost is an extremely complex process. In conducting business operations, assets lose their original identity, that is, they are converted into some other form. For example, materials used in a chemical process often cannot be identified as such in some end product produced. Costs are traced through operations', wherever possible, as the assets are transferred or converted in the course of operations. One of the principal in accounting for costs 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 most important in the business management. Operations are controlled by using cost as a basis to measure effective and efficient performance. Cost standards are set up and actual cost are compared with those standards to determine deficiencies and the source of those 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.

1.2 Public Enterprises Scenario in Nepal.

Nowadays the numbers of public enterprises are increasing rapidly in every country of the world. In our country, Nepal, also the number of public enterprises is increasing rapidly.

There are basically two reasons why developing nations have realized the importance of Public Enterprises in the economic development of the country and need for state intervention for structural change. The first inadequate initiative taken by private sector or enterprise and managerial competence. The reason is relating to the structural changes that are required for the rapid industrialization and thus economic development. These structural changes, by its nature are as huge that they need long-term planning and heavy investment.

The development activity in our country has been started since 2013 B.S. The third five years plan further emphasized manufacturing sector. This plan aimed at achieving industrial development through both public and private sectors. In conformity with the laid emphasis on manufacturing sector twelve public enterprises were established during this plan period of which seven were manufacturing enterprises, one of them was DDC. In the process of economic planning was started in USSR First, when there was economic depression in 1929. The needed of public enterprises were realized in Nepal, after the political changes in 1956. The concept of public enterprises in Nepal for the first time emerged in 1932 when the Nepal government gave the charter to set up the Nepal trading corporation in Kathmandu in order to promote government trading in Nepal but the step towards the incorporation of EPs was only initiated on 1953 when the Nepal Bank Ltd established in 1973. the

government started to make and social welfare like on other developing countries. Nepal has also adopted mixed economical existence.

The, government thus, established different public enterprises during various plan periods. During these periods some public enterprises were liquidated, some were amalgamated and thus at present about 59 public enterprises are operating under various sector of the company. This study attempts to focus its study on two of the public enterprises from the manufacturing sector. Though Public Enterprises are accepted now as an effective instrument to speed up the economic growth in the developing countries, in practice, the Public Enterprises that have been established so far have not been able to contribute in this process. Public Enterprise is strongly influenced by the culture and system of public administration of the country concerned. It is because of this fact in these countries the administrative problem arises both at the conceptual as well as practical level and this country is that they are not well understood and looked after by policy makers and administrators in government. Government has failed to provide the necessary and adequate policy directives and have not taken the right steps to help Public Enterprises operate on sound business principles. The Public Enterprises do not have corporate goals as well as sectoral coordination. As a result, most of the policies, as regards to Public Enterprises management, are the outcome of the crisis in that sector and are to solve the immediate problems only, but not from the long run point of view. It has also been felt that most of the Public Enterprises are created on the basis of the convenience and on the advice of the aid donors rather than on the basis of overall and long-term public sector development plan. Governments in developing country also attempt to manage and administer these enterprises on the basis of the traditional government control.

To take the instance of our own country, on the one hand decision-making is highly centralized and on the other, there are too many controlling agencies to be accounted for before a decision being taken. Participative management is not practiced. The result is slow work and poor performance. Favoritism is playing an important role in personnel selection, placement, training and promotional matters. It is observed that lack of skilled manager to manage Public Enterprises effectively is the basic problem in developing countries. A poor government recruitment policy is one of the causes of shortage of skilled managers. In most of the developing countries,

right from the establishment of Public Enterprises, public enterprise recruitment would be influenced by political and bureaucratic favoritism. Nepal too cannot be exception in this respect. It is felt that executives in Public Enterprises find themselves safe in safeguarding their chairs by taking no decision but by making their boss and ministry leashed in any way. Due to these drawbacks it became necessary to think seriously about Public Enterprises highlighting the needs of privatization. The story of privatization took a different turn in post multiparty democratic system.

1.3 Focus of the Study

Generally cost means money paid in exchange of any thing, According to W.M. Haorper, “ A cost is the value of economic resources used as a result of producing or doing the thing costed” Chartered Institute of Management Accountants defined cost as, “the amount of expenditure (actual or notional) incurred on or attributable to a given things.” Committee in cost concepts and standards’ of the American Accounting Association says that: “Cost is the forgoing measured in monetary terms incurred or potentially incurred to achieve a specific objective.”

Industrialization is the backbone for the economic development. If some industrial products are made easily available in the market as well as regular and sustainable industrial production have to be enhanced. Higher industrial growth rate and desirable quality improvement of the product is a major challenge of today.

The management of developed countries like America, Japan, and England has better understanding on this aspect. They are paying serious attention in managing the cost control unfortunately less developed countries like Nepal have not fully realized importance of this aspect in comparisons to them. Cost control enables the management of the industry to plan the production operation in such a way that labour and machine can be utilized efficiently and effectively. Timely modernized “Cost control” may result in the better service to customers by reducing total cost of production. This may also increase the profitability of the firm.

1.4 Statement of Problem

Public Enterprises need to be economically and financially sound. It is possible only when public enterprises have sufficient material, maximum overhead

cost and minimum cost of production etc. the Nepalese manufacturing public enterprises are suffering from a very high level of cost in comparison to the private enterprises, due to inefficiency, lack of technical know-how and miss-management. Some other invisible factors may be responsible for high cost of production.

In developing country like Nepal, there is a problem of capital formation and so it is not possible to accept the traditional concept that public enterprises should not make profit. It is meant that public enterprises are established for service motive but not to earn profit. But in developing country it is essential to earn some margin of profit for capital formation and it should be done by decreasing cost of production overhead cost, labor cost etc.

In our country, Nepal most of the development activities are one of the disposed of the state and so it is necessary for the country to make surplus money from the public enterprise to finance other development activities. Public Enterprises cannot generate profit due to carelessness of cost control. So cost control mechanism is a vital part of overall management. It is just like as backbone of the public enterprises. If cost control mechanism is not strong in enterprises than goal and target cannot achieved in time. It is possible when the enterprises have clearly examined the cost structure of the organization.

Success does not just happen; it should be planned and managed. As a role costing information should be collected as and when the work proceeds. This system of ascertaining cost is known as continuous costing and will involve the task of preparing an estimate of expenses even before a period begins. The other post costing, of finding out the cost after full and accurate information is available is not useful, because it is like a post mortems; it can reveal the exact cause of loss but without the chance to take corrective action. Post costing is useful only in 'Cost plus contract' which are usually awarded by the government on, the basis that the ultimate price will depend upon actual cost of production plus a reasonable margin of profit.

Success of any business enterprises is measured by the capacity of surplus generation. In reference to Nepalese public enterprises, is can observed that most of them have not been able to contribute toward the generation of surplus. All public

enterprises are in loss and are running with the help of government subsidy. Public enterprises could be geared neither towards achieving their prescribed objectives nor towards providing social returns to the society. The public enterprises poor performance or even negative results in some important respects may, therefore, be ascribed to the factors such as system-lacking and inefficiency in management, formal and informal intervention of the influential channels, the prevalence of corruption and abuse of power, vested and self interest of some of the public authorities including public enterprises officials over public enterprises affairs.

The management problems in public enterprises lie in such areas such as wastage control, repairs and maintenance. Accounting and management information system problems are acute in a number of public enterprises. Almost all the state manufacturing enterprises are running under capacity. One of the crucial deficiencies' of the public enterprises as pointed out in several studies is related to materials management causing high burden on the scarce foreign exchange accounting.

1.5 Research Questions

Cost accounting offers information needed by the various levels of management. Though the study is concerned with the cost control mechanism, following question has been asked to concerned person:

- (a) How the cost has been formed of DDC ?
- (b) What are the variable cost of DDC?
- (c) What are the fixed cost of DDC?
- (d) How is the situation of sales in past five years?
- (e) What are the standard cost rate?
- (f) Is there any cost control technique used by the DDC?
- (g) Is there any published articles of DDC regarding cost control mechanism?

1.6 Objective of the Study

The study is needed for effective cost allocation in DDC to see the impact in profitability and to find out how much money should invest in cost of production. The basic objective of this study is to examine the cost control mechanism applied by DDC , its effectiveness and significance. Following are the objectives of the study:-

- i) To analyze the cost control mechanism of DDC through cost volume profit analysis, labour cost control and standard costing.
- ii) To find out exact cause of decrease profit and increase in loss of DDC.
- iii) To provide a correct analysis of cost by using different methods of cost.
- iv) To provide suitable recommendation and suggestions.

1.7 Significance/ Importance of the Study

Cost control mechanism is one of the important aspects in any manufacturing enterprises. Without effective and efficient cost control none of the manufacturing company can achieve the goal. Proper allocation of the cost enables the enterprises to maximize the profitability and do not block the production. If slightly changes in the cost of materials it will effect in the profitability. So the company should keep adequate information regarding the cost structure of the company.

Nepal, an under industrialized country is still using traditional costing techniques in production. To have a sound achievement company should apply modern tools and techniques to control cost. In performing managerial functions of planning and control, among alternatives and planning the optimum utilization of resources, he should know costs of each alternative, costs data are also needed to make decisions such as pricing, volume, make or buy replacement, assets acquisition, product mix, etc. Further, the performance of executives and their subordinates can be evaluated and controlled only when a comparison between the costs actually incurred and the costs that should have been incurred is made. Though the term 'cost' is commonly used by all, yet there does not exist one unique concept of cost. In fact, different cost concepts exist for different purposes. A further complication arises when different people use the same cost term to represent different purposes.

1.8 Limitations of the Study

Cost structure mechanism is one of the important parts of the cost account. The following constraints are main limitations of this study:-

- i) This study attempts to find out the impact of cost control mechanism in DDC only.
- ii) The cost figures of last five years will be analyzed.

- iii) The limited time available with the researcher and the resource constraints will also limit the work.
- iv) Availability of relevant data and other information will determine its scope.
- v) Accuracy of the study will be based on the data availed from the management of DDC , and the response made by respondents on the research questioner.
- vi) This study related with certain method of cost control mechanism like as: cost volume profit analysis, labour cost control and standard costing, correlation and trend analysis.

1.9 Organization of the Study

This study is mainly related with the cost control mechanism of DDC . To achieve the objective of the study, this thesis has been divided into five chapters.

i) Introduction

The first chapter deals with background of study focus of the study, public enterprises scenario in Nepal, statement of problem, significance of the study, limitation of the study and chapter scheme of the study.

ii) Review of literature

The second chapter is related with review of literature. It deals conceptual framework setting, analytical tools. Definition, explanation and formula used in studying cost control mechanism and review of relevant literature related to study under the main heading of review of literature.

iii) Research Methodology

The third chapter the research methodology has been presented. This chapter covers research design, sources of data collection procedure, data processing and tabulation, analytical tools, and techniques used.

iv) Presentation and Analysis of Data

Fourth chapter presents the analysis of data. To the analysis of data, this chapter uses different charts, table, and statistical and financial tools for better understanding of data and to reach towards accurate interpretations.

v) Summary, Conclusion and Recommendation

The fifth and the final chapter provides the summary, conclusion and recommendations of overall study. At the end an extensive bibliography and annexes are also included.

CHAPTER- II

REVIEW OF LITERATURE

A limited number of studies are found to have conducted in the field of cost control. The second chapter has given emphasis on the review of literature regarding cost control mechanism. This chapter is divided into two parts. The first part is theoretical consideration of cost control, it focuses on the conceptual frame work setting, analytical tools, definition, explanation and formula used on identifying the cost control mechanism and second part is review of relevant literature related to studies.

2.1 Conceptual Setting

2.1.1 Cost

Cost represents the portion of the acquisition price of goods, properties or, services which has been differed or not yet assigned against revenue of a period. In other words expenses are costs which have been applied against the revenue of a period.

"Cost represents the resources that have been or must be scarified to attain particular objectives" (Shilling; 1998 p. 11)

According to him, cost accounting deals with the measurement of resource scarifies and concerned with four activities as below.

- i) Cost Finding: - Measurement of estimation of the costs of individual products, departments or other segments of the firms operation.
- ii) Cost Analysis: - Estimation pf the relationship between costs and various determinants of costs.
- iii) Cost Recording: - Classification and distribution of cost among the various ledger accounts.
- iv) Cost reporting: - Communication of costs data to various interested parties.

2.1.2 Cost Control

Cost control mechanism is the cost function of the management. It is always operating in business enterprises. Now a day's management is facing problems of survival because of actual competition, only that organization can meet the

competition effectively and have hold on the market which are in a position to keep their cost minimum. Cost control can be instrument in this regard by eliminating all inefficiencies and wastage. (Shilling; 1998 p. 12)

Cost control can be defined as the guidance and regulation by executive action of the costs of operating and undertaking. In other words, it is defined as a process of measuring and evaluating actual performance of each organizational component of an enterprises and taking correct action when necessary to ensure efficient accomplishment of an enterprises objective, goal and policies. Cost control aims to guiding the actual cost towards the line of targets. Cost control regulate the actual cost, if it is deviate or vary from targets.

Cost control mechanism helps in planning the production according to availability of materials, labour and overhead cost and stock can be arranged in time. Loss due to carelessness or any other mistake is deducted and steps taken to minimize such loss in future. It is also giving detailed information about machine, labour, and cost of raw materials, overhead cost and factory capacity. The maintenance of time and job cards for workers disclosed the cost incurred by idle time and indicates the directions in which techniques through losses may be minimized. It is also provides the knowledge use of budget and making performance report. It gives the knowledge about use standards to assist management in making estimates and plans for future on the basis of management efficiency. The organization and management understanding must be planned and controlled in such a way that desire volume of production is achieved at the least minimum possible cost in relation to schedule quantity of the product with the help of cost control techniques.

2.1.3 Steps for Cost Control Mechanism

A manager should take the following steps to make cost structure mechanism intelligently and skillfully. (Jain; 1993, p. 15)

- i) Set up targets
- ii) Measure the actual with the targets.
- iii) Compare the actual with the targets.
- iv) Find the exact causes for the variation between the targets and the actual.
- v) Take correct action to eliminate this variation.

First of all cost control requires fixing the expenses target for a given period. This target should necessary be related to production targets. Particularly in respect of variable expenses. Having decided the targets. In second step is to measure the actual. The actual should be measure on the same basis as the targets. In the third step cost control is compared actual with the targets. The objective of this comparison is to bring out the difference between these two sets of figures. The last step of cost control is to keep a watch on whether or not necessary action is being taken to eliminate the variations and actual are brought to the target.

2.1.4 Essential for success of cost control mechanism

There are certain basic factors which should be taken care of making success of cost control mechanism. (Welsh; 1992, p. 261-262)

- i) Proper fixation of target
- ii) Timely presentation of comparison.
- iii) Periodical review of result

First step, the target should always be fixed up in consultation with the individual responsible for achieving the target. If target is not fixed then whole objectives of cost structure mechanism will there be defeated. Second step, the comparisons between the targets and the actual should be presented sufficiently in time for necessary action to be taken, information delay is information denied. If a considerable time elapses between happening of events and reporting, opportunity for taking appropriate action may be lost or some wrong decision may be taken by management in the absence of information. Third step, the report should draw management in attention to exceptionally good or bad performance so that management by exception may be carried out effectively. The aim should be to bring to light the factors leading to increase in cost rather than to punish people to take the remedial action to improve the performance in future.

2.1.5 Cost Control system in Nepal

Nepalese management, whether in public enterprises or private enterprises, has not as yet effectively utilized the tools of cost control for the purposes of improving the organizational performance. It is because due to the virtual absence of the atmosphere of cost consciousness for the sack of efficient utilization of resources,

and they are not required to earn a predetermined rate of return on the capital employed. (Agrawal; 2000. p. 39-40)

Nepalese managers seem to be living in the world of panic stricken adhoc cost decision rather than making endeavors towards proper planning and control of costs. The information system prevailing in Nepalese enterprises does not even seem adequate to properly record the historical costs. Predetermination of costs and the timely provision of control reports is just possible from the management information system operating in them. Most of them even lack the basic cost accounting organization and carry on their operations without any cost information what so ever, very much like shots in the dark.

Nepalese managers seem to follow the easy way without of their financial difficulties even at the cost of consumers.

2.2 Analytical Tools Definitions, Explanation and Formula used

There are various analytical tool's available for effective cost control like as personal supervision, internal reports, break even analysis, budgetary control, material cost control, labour cost control but among them the following important tools will be used in this study.

2.2.1 Cost Volume Profit Analysis

The relationship between cost, volume and profit is known as cost volume profit analysis, it is an analytical tools for studying the relationship between volume, cost price and profit. It is also an important tools used for the controlling cost in business. There are three factors of cost volume profit analysis which are dependent on one another. For example profit depends upon sales, selling price will depends upon the costs and cost depends the volume of production. (Swaminathan; 2000, p.345-349)

C.V.P. helps to determine the minimum sales level to avoid losses and the sales volume at which the profit goal of the firm will be achieved. It also helps management to choose the most profitable combination of costs volume. C.V.P. analysis can be used by dynamic management to predict and evaluate the implications

of its short run decisions about fixed and variable costs volume and selling price for its profit plans on a continuous basis. It also provide the answer to question such as:

- i. Which product or product mix is most profitable ?
- ii. Which product or operation of plan should be discontinued ?
- iii. what will be the effects of changes price? And so on.

2.2.2 Break Even Analysis

Break even analysis is an analytical techniques used to study C.V.P. relationship. It shows the relationship between the costs and profits with respects of sales volume. It is an effective reporting system. B.E.P. analysis is a powerful instruments in the hand of policy makers who makes policy for decision making, cost control and maximize profit. (Dangol; 2004, p. 164)

The term break even analysis is interpreted in the narrower as well as broad sense. Used in its narrower sense, it is concerned with finding out the break even point, i.e. level of activity where total cost equals total selling price, used in its broader sense, it means that system of analysis which determines the probable profit at any level of production.

The break even Points means the level of output or sales which makes no profit or loss. In other words in which point total revenue equals to total costs, that point is called break even point. In that situation profit is zero. If the actual volume of sales is higher than the break even there will be profit and actual volume of sales is lower than break even there will be loss. For the break even point to occur, it is necessary that the firm has some fixed costs and some variable cost.

Break even formula

Break even point of business can be determined by following simple algebraic formula.

$$\text{Break even point in unit} = \frac{\text{Total Cost} - \text{Cost}}{\text{CMPU}}$$

$$\text{Break even point in Rs.} = \frac{\text{Total Fixed Cost}}{\text{PVRatio}}$$

Where, CM_{PU} = Selling price per unit – Variable cost per unit

$$PV \text{ Ratio} = \frac{S - V}{S}$$

2.2.3 Margin of Safety

Margin of safety is the margin by which the actual volume of sales exceeds the level of break even sales. In other words the margin of safety is the difference between the total sales and the sales at the break even point. The size of the margin of safety shows performance of a business enterprises. A business enterprises high margin of safety shows better performance. It can safe position in competition market because it can make high fixed costs and profit an not be made unless there is a high level of activity to absorb the fixed cost. The margin of safety can be calculated in the following manner. (Jain; 1993, p. 46)

Margin of Safety = Total sales – Break even sales

$$M \text{ a r g i n } \text{ i n } \text{ S a f e t y} = \frac{P r o f i t}{P r o f i t \text{ V o l u m e } \text{ R a t i o}}$$

If company finds that its margin of safety is unsatisfactory the following possible steps can be taken to rectify the situation.

- i Increase the selling price
- ii Reduce the variable cost
- iii Reduce the fixed cost
- iv Substitute the existing products
- v Increase volume of output.

2.2.4 Contribution Margin

Contribution margin is the difference between sales and marginal cost. It is also called marginal profit or gross margin. the marginal profit provides the contribution towards fixed cost and profit. If contribution is less than fixed cost, the loss is incurred and more than fixed cost profit is incurred. (Dangol; 2008, p. 417-418)

The following formula is used to calculate contribution margin:

$$\text{Contribution Margin} = \text{Sales} - \text{Variable Cost}$$

2.2.5 Contribution Margin Ratio

The contribution margin ratio is the complement of the variable cost ratio. It is one proportion of the sales dollar available for coverage of fixed costs and attainment of profit. It is computed by subtracting the variable cost ratio from 100 percent. The relationship may be expressed in dollars as the contribution margin- the difference between total revenue and total variable costs at any volume.

The contribution margin ratio may provide management with some useful information. If a firm is operating at a 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 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, the greater the loss as the dollar volume if sales decreases. The following formula can be apply to calculate contribution margin ratio.

$$\text{Profit Volume ratio or contribution margin ratio} = \frac{\text{Contribution}}{\text{Sales}}$$

2.3 Labour Cost Control

2.3.1 Introduction

Labour cost is a second major element of cost under the present political conditions with a restive labour engaged in organized industry, it is very difficult to reduce the labour cost. Therefore, proper control and accounting for labour cost is one of the must important problems of a business enterprise. The human element in labour makes difficult the control of labour is the most perishable commodity and such should be effectively utilized immediately. Labour, once cost, cannot be recouped and is bound to increase the cost of production. (Jain; 1993, p. 2.102)

Human contribution to production of goods or rendering of services represent labour cost, fundamentally, a labour cost consists of daily or weekly wages and the monthly salary paid to employees, in addition to the base pay labour cost usually includes overtime payment, leave pay, bonus, insurance such as life, accident, health and workmen compensation, hospital and surgical benefits for employees and other departments, retirement benefits like pensions, gratuity payment etc. so, labour cost constitute significant portion of the total cost of a product. Labour cost may be excessive due to inefficiency of labour, more wastage of materials by labour due to the lack of proper supervision, high labour turn over, idle time and unusual overtime work, inclusion of bogus workers in the wages sheet and many other related factors. Therefore, economic utilization of labour is a need of the present day industry to reduce cost of production of the products manufactured or services rendered.

Hence, control of labour cost's a important objective of management and realization of this objective depends upon the cooperation of every number of the supervisory forces the top executive to foreman. From functional point of view, control of labour is effected in a large industrial concern by the co-ordinated efforts of the following six department

a) Personal Department

Personal department deals with the human aspects in organizational work environment. It refers to organization, motivation and coordination to human resources towards accomplishment of desire organizational objectives. The responsibility of personal management ranges from assistance in laying down personnel policies by to management to the implementation of such policies in the work environments of the organization. Such policies may relate to employment and retirement. They may relate factors such as remuneration, fringe benefits, incentive schemes, evaluation of performance, promotion, reward and punishment. The policies may also relate to development aspects as training education and job-rotation.

b) Engineering Department

The engineering department maintains control over working conditions and production method of each job. The main functions of engineering department are given below.

- i) Preparation of plans and specifications for each job schedule for peroration.
- ii) Supervision of production activities in production departments.
- iii) Inspection of parts and job successive stage of production.
- iv) Maintaining good working condition to health and efficiency of workers.
- v) Conducting research and experimental work before undertaking new jobs.
- vi) Maintaining safety conditions so that there may be minimum possible number of accidents.

c) Time and Motion Study department

This department deals with the management technique of studying the job by dividing it into its fundamental elements. Eliminating or reducing all un necessary and reducing the fatigue element. The main objective is to improve the method of working by economizing efforts while maintaining efficiently. After the motion study is completed, study of time is made each operation to fix up standard time required to do a job.

d)Time Recording Department

Recording of the time that a worker is available for work has two different aspects (i) arrival and departure of the worker, i.e. his attendance in the factory (ii) availability of the worker for particular operations, jobs work orders.

The recording of the workers time arrival and departure is known as time keeping. The objective of time keeping is to keep a day to day record to the workers attendance and to enforce discipline in attendance. Time keeping also helps in the calculation of wages of workers who are paid on a time basis besides, it enables management to determine the normal time of work, late attendance, over time and early leaving by employees and to conform to the legal requirements about daily hours of work.

Availability of the worker for particular operations jobs and process during his period of attendance in a factory is known as time booking its objective is to ensure

that the time for which a worker is paid is properly utilized. Secondly, it helps computation of the labour cost for different jobs and work orders. Thirdly, it provides a basis for the apportionment of overheads among different jobs. Besides, idle time can be easily ascertained and controlled with the help of proper time booking.

e) Cost Accounting Department

The cost accounting department is responsible for the accumulation and classification of all cost data of which labour costs are one of the most important elements on the basis of the labour time the cost department records direct labour cost on the appropriate cost sheet or, production and indirect cost on the departmental expenses sheet. The time keeping department sends copies of daily time tickets to the cost department where they are costed and checked as total time in a factory as well as labour distribution.

f) Payroll Department

The important activities of the payroll department in controlling and accounting for labour cost are follows:

- i. To distribute wages and salary.
- ii. To maintain a permanent payroll records for each employee.
- iii. To prepare departmental summaries.
- iv. To compute employee wages.
- v. To verify and summarize the time of each worker as shown on time cards.

Preparation of Payroll or Wages Sheet

Employment of labour and utilization of labour time must be accompanied by factory of wage Payment. This involves computation of gross wages, deduction their from and calculate the net wages payable to him at last, the payroll are either prepared weekly fortnightly or monthly according to the practice followed in the factory. the pay rolls are prepared departments wise and where the department work more than one shift. When payroll is prepared a pay slip is made out for each worker and these are distributed to the worker a day before the actual date of payment.

2.3.2 Wages System

An important aspect of labour cost control is a wages system designed primarily for exercising management control over labour. The following objective should be considered in selecting wages system. (lynch; 1999, p.77)

- i) The employers should be responsible to avoid slowdowns and work stoppages in factory.
- ii) Factory administration should be economy.
- iii) Stabilization of labour turnover.
- iv) Minimizing of absenteeism and idle time should be controllable.

There are two systems to pay wages for labour.

a) Straight Time

Straight time wages basis system is prepare by an hourly, daily, weekly rate and monthly to pay wages for who depends upon the time and not upon production. If a worker works for an overtime, the wages agreement usually provides that all hours worked of an excess, paid at a higher rate than normal rate.

In this method payment of wages workers have feelings of security and certainty for a definite wages or salary regardless of the amount of work completed or the efficiency of their work provided it is above the minimum requirements.

b) Piece Work

Under this method, a fixed rate is paid for each unit produced, job performed or number of operations completed. The worker wage depends upon his output not upon time spends in the factory.

2.3.3 Idle Time

Loss of time which takes place during the regular hours of work is known as idle time. In other words idle time is that time for which the employer pays but from which he obtains no production idle time does not include festival, holidays, annual leave etc. Idle time may be of two types:

a) Normal Idle Time

Normal idle time represent the time, the wastage of which can not be avoided and therefore, the employer must bear the labour cost of this time. this idle time is caused by several reasons like as time lost in waiting for materials, instruments, time cost in moving from one job to another, temporary absences from duty because of minor accidents, personal needs, tea breaks and time taken in picnic up the work for the day.

b) Abnormal Idle Time

The wastage of time which can be avoided if proper precautions are taken, that is called abnormal idle time. The abnormal idle time caused by effect of following factors such as.

- i) The time lost through the break down of machinery due to inefficiency of workers.
- ii) The time wasted due to shortage of material on account of efficiency of storekeeper or, the purchasing department.
- iii) The time wasted due to strike, lockout, fire, wind and water damage etc.

Control of Idle Time

Production should be always planned and supervised so that idle time is reduce to minimum efficient worker must be apply to do work in time to reduce idle time. Idle time due to internal power failure should be reduced by keeping a proper inspection and maintenance of the power plant. Timely provisioning of materials and regular maintenance of plant and machinery will also reduce the idle time control of strike, lockout, fire and labour union also control idle time.

Over Time

When a worker works beyond his normal hours of work, that time is known as over time. According to factory “act 1948 every worker is to be paid over time at a higher rate, generally at double the normal wage rate. If he is required to work more than eight hours a day” the excess rate over normal wages rate is called. Overtime arise due to break down of machinery or failure of power during normal hours, absenteeism of worker in duty time. It is desire to complete the normal work in over time. Demand of the product is high in the market but factory has limited machine,

labour capacity. In that situation factory can not fulfill the demand of market doing work in normal time and do work in over time for fulfill the element of market.

Over time payment made to workers engaged in direct labour are treated as direct labour cost and payment of indirect labour are treated as factory overheads and payment made to staff of selling and distribution is treated as distribution overheads.

Control the overtime

Working overtime hours is very bad practice for a factory because overtime wage rate is higher than normal rate. Worker will adopt the habit of postponing the work to be done in over time just to earn more wages. Expenses like lighting, cost of supervision, wear and tear of machinery etc. will increase disproportionately.

A proper control should be exercised during normal hours to ensure that overtime is not allowed when normal output is not achieved during normal working hours. A statement of overtime work should be prepared with the advise of related authority. Normal rate per hour and overtime rate per hour of output should be compared and excess of overtime rate should be try to decrease at normal hour rate for reduce overtime cost. If possible in a factory an upper limit of overtime should be fixed for each category of workers and periodical reports overtime work should be sent to the top level management for taking corrective action.

2.3.4 Labour Turnover

Labour turnover is defined as the engagements and losses in the labour complement as related to the total numbers employed at the beginning of the period labour turn over denotes the percentage change in labour forces of an organization. Every factor should see that its labour turn over percentage is kept at the minimum. Increase in labour over denotes that labour is not stable and there are frequent changes in the labour forces because of new workers engaged and workers who left organization. So high labour turn over affect the working efficiency of the factory and low turn over effect adversely of high turn over.

There are three methods of measuring labour turnover

i) Separation Method

This method is calculating on the basis of number of worker left during a period and average number of worker during a period. This method does not take consideration the fact of surplus labour. It will give incorrect result when the surplus workers are discharged because labour turn over calculated in this way will high. The following formula can be used for calculating labour turnover by separation method:

$$\text{Labour Turn Over} = \frac{\text{No. of employee left job during a period}}{\text{Average no. of employee in a period}} \times 100$$

ii) Flux Method

Flux method is calculating only the basis of number of worker of worker left and number of worker joined. This method should be applicable when the factory is not expanding. In such a case, many new workers are engaged and there may be no separation. When calculating labour turnover from flux method following formula can be use.

$$\text{Labour Turn Over} = \frac{\text{No. of worker left} + \text{no. of worker joined}}{\text{Average no. of employee in a period}} \times 100$$

iii) Replacement Method

In this method only mind number of workers replaced during a period, not mind number of workers left job during a period. It gives correct labour turn over when factory is expending. So, this method is most reliable method of above of them.

$$\text{Labour Turn Over} = \frac{\text{No. of worker replaced in a period}}{\text{Average no. of worker in a period}} \times 100$$

2.4 Standard Costing

2.4.1 Concept and Definition

Standard cost is predetermined cost. It is a determination in advance of production, what a product should be cost, it is a measure of acceptable performance established by management established by management as a guide of certain economic decision. (Lynch; 1999, p.194)

The costing terminology of chartered institute of management accountants London as “ a predetermined calculation of how much costs should be under specified working conditions.”

From above given definition it is clear that standard cost is predetermined cost. It is built up by correlating standard quantity (of machine time, labour time and material) and forecast of future market trend for price standard (price of materials, wages rates, machine cost per hour etc.)

When standard cost are used for the purchase of cost control, the technique is known as the standard costing. It is important to determine what a product should cost, and if the actual cost is more than the determined cost then why it is so. Standard costing aims is to reduce the wastage and increase efficiency in performance through setting up standards for production expenses and production performance.

I.C.M.A. (1966), London had defined the term standard costing “As the preparation of standard cost of products and services.”

From the above definition it is clear that the techniques of standard costing may be summarized as below:

- a. To fixed the standard cost for material, labour and overhead.
- b. To find out actual cost.
- c. To compare the actual cost with standard cost.
- d. To analyses the variance between standard cost and actual cost for taking the appropriate action where necessary so that maximum efficiency may be achieved.

The system of standard costing is more commonly applied in an industries where the production is repetitive type i.e. where, the manufacturing operation are limited in number and the range of product is large.

DDC production process is reparative type. It's manufacturing operation are limited and the range of products is large so standard costing is very essential for controlling cost.

2.4.2 Objective of Standard Costing

The following are the major objective of standard costing.

- i) To help in making budgets and evaluating managerial performance.
- ii) To help in control of excess cost like as material, labour and overheads etc.
- iii) To simplify the tasks of tracing costs to products for inventory valuation purpose.
- iv) To provide a prediction of future costs that can be used decision making.

2.4.3 Types of Standard Costing

There are three types of standards.

Basic Standard

It is a long term standard which would remain unchanged over the years. It is also known as budgetary standard, fixed standard and static standard. This standard is fixed for long period so as to help forward planning. It is established for some base year and not change for a long period of time a material prices, labour rates. Basic standard is not use any practical life because it is constant over a long period of time and not adjusted to current market condition. So this type of standard is not suitable for cost control point of view.

Expected or Attainable Standards

This type of standards based on expected performance and represent cost that should be incurred under forth coming efficient operating conditions, normal losses are allowed for while setting expected standard. Actual costs are compared against expected standard costs in order to isolate the variances. Managers can hope to achieve and even better expected standards. They can efficiently apply the principle of “management by exception”. Moreover, such standard exert desirable motivational impact on the employees. Hence, this type of standard is best suited from cost control point of view because this standard reveals real variances from the attainable performance.

Ideal Standard

It is based on the best operating conditions, no breakdowns, no material wastage, no stoppages in work. This standard is extremely tight and available capacity

is fully utilized. It is not likely to be achieved because ideal condition of performance will not prevail.

2.4.4 Variances Analysis

Control is a very important function of management control through management ensures that performance of the organization conforms to its plans and objective. Analysis of variance is helpful in controlling the performance and achieving the profits that have been planned. (Dangol; 2004, p. 612)

The difference between actual cost or profit or sales from the standard cost or profit or sales is known as “Variance”. If actual cost is greater than standard cost, the variance is known as adverse or unfavorable where as if actual cost is less than standard cost the variance is known as favorable. The favorable and unfavorable variances are also known as credit and debit variances respectively.

The following three variances are the main variances for practical purpose:

2.4.4.1 Direct Material Variance

The difference between actual direct material and budgeted direct material is known as direct material variances. (Dangol; 2004, p. 612)

i) Material Cost Variance (MCV)

The difference between the standard cost of material specified and the actual cost of material used is known as material cost variance. Material cost variance is generally caused by either or both of two factors derivations of price and quantity of materials from the standards specified of materials.

It is computed as follows:

$$\text{MCV} = \text{SQ} \times \text{SP} - \text{AQ} \times \text{AP} \quad \text{or,}$$

$$\text{MCV} = \text{MPV} + \text{MUV} \quad \text{or,}$$

$$\text{MCV} = \text{MPV} + \text{MMV} + \text{MYV}$$

ii) Material Price Variance (MPV)

The difference between actual price paid and standard price specified is known as the material price variance. This variance may be caused by several reasons like as: increase in market price of material, emergency purchase in smaller quantity

of material, failure to secure discount on bulk purchase and failure to secure cash discount provided for while setting standards.

It is computed as follows: $MPV = AQ(SP-AP)$

iii) Material Usage Variance (MUV)/ Material quantity variance(MQV)

It is that portion of the material cost variance which is due to the difference between the standard quantity of materials specified for the actual output and the actual quantity of material used. The wage variance may have been caused by following factors such as: difference in quality of material use in production, inefficiency in production due to lack of necessary skill in workmen, abnormal wastage through defective machinery and wrong specifications of materials by planning engineer etc. It is calculated as follows:

$$MUV = SP (SQ-AQ)$$

Where more than one year of material is used in the process, material mix variance(MMV) and material yield variance (MYV) are worked out in the place of material usage variance.

iv) Material Mix Variance (MMV)

The material mix variance is represented by the difference between the actual quantity of respective materials valued at the standard price for each, and the actual quantity of materials in standard proportions valued at the standard price for each.

In case of MMV two situations may arise:

i. Actual weight of mix and the standard weight of mix do not differ. In such a case, material mix variance is calculated as follows:

$$\text{Standard unit cost (Standard quantity – actual quantity)}$$

In the standard it is revised due to shortage of material, the material mix variance is calculated as follows:

$$\text{Standard unit cost (Revised St. quantity Actual quantity)}$$

ii .Actual weight of mix differs from the standard weight of mix. In such case, it is calculated as follows:

$$\frac{\text{Total weight of actual mix}}{\text{Total weight of (revised) St. mis}} \times \text{St. cost of revised St. mix.}$$

The material mix variance may arise from a variety of causes such as change in market condition, shortage one of the material in the mix, delay in material supply and so on.

v) Material Yield Variance(MYV)

The difference between the standard yield specified and the actual yield obtained is known as material yield variance. This variance measures the abnormal loss or saving of materials. It is important in case of process industries where certain percentage of loss of materials inevitable. If the actual loss of materials differs from the standard loss of materials, yield variance will arise. This loss may result in the following two situations:

- i. When standard and actual mix do not differ in such case it is calculated as follows

$$MYV = \text{St. Rate} (\text{Actual yield} - \text{Standard yield})$$

Where,

$$\text{St. rate} = \frac{\text{Standard cost of St. mix}}{\text{Net St. output} - \text{St. loss}}$$

- ii. When actual mix differs from standard mix

$$MYV = \text{St. Rate} (\text{Actual yield} - \text{Revised St. yield})$$

$$\text{Where, st. rate} = \frac{\text{Standard cost of St. mix}}{\text{Net St. output} - \text{St. loss}}$$

The yield variance may be caused by such factors as: defective method of operation, sub- standard quality of material purchased, lack of proper supervision etc.

2.4.4.2 Direct Labour Variance

The difference between standard labour and actual labour is known as direct labour variance. (Dangol; 2004, p. 614)

In case of labour, the following may be variance

i) Labour Cost Variance (LCV)

The difference between the standard wage specified and the actual wage paid is known as direct labour cost variance it is also known as wages variance. Cost of

labour is determined by on the basis of labour time and wages. It is calculating with the help of following formula:

$$LCV = ST \times SR - AT \times AR$$

ii) Labour Rate Variance (LRV)

The difference between the actual and standard rates of wages multiplied by the actual hours of labour, time represents the labour rate variance. It is calculated as follows:

$$LRV = AT(SR-AR)$$

Labour rate variance may have been caused by such factors as: grade of labour overtime rates for urgent completion of job and change in the basic wage rates etc.

iii) Labour Efficiency Variance (LEV)

The difference between the actual labour time expended to any work and the standard labour time specified valued at standard wage rate is known as labour efficiency variance. The computation of the variance is as follows:

$$LEV = SR(ST-AT)$$

Labour efficiency variance may have been caused by such factors as : inefficiency work man, machinery break down, lack of proper supervision, unsatisfactory working conditions and hours last in waiting etc.

iv) Labour Mix Variance (LMV)

It is part of labour efficiency variance. The variance which is due to the difference between standard labour grades specified and the actual labour grades utilized is known as labour mix variance. It is calculated as follows:

$$LMV = \frac{\text{Actual labour mix}}{\text{St. labour mix}} \times \text{St. cost of revised St. mix}$$

The labour mix variance may be caused by following factor as : different grades of labour and inadequate training of employees etc.

v) Labour Yield Variance (LYV)

The difference between standard output expected and actual output is known as labour yield variance.

It can be calculated as follows:

$$LYV = (AY - SY) \times \text{St. cost per unit of output}$$

vi) Labour Idle Time Variance (LITV)

It is that portion of labour cost variance which is abnormal idle time of workers. This variance is shown separately to show the effect of abnormal causes affecting production like power failure, break down of machinery and shortage of materials etc.

It can be expressed as follows:

$$LITV = \text{Abnormal Idle Time} \times SR$$

2.2.4.3 Overhead Variances

In case of overhead, the following may be variance. (Dangol; 2004, p. 615)

i) Overhead Variance

The difference between the standard cost of overhead allowed for the actual output achieved and the actual overhead cost incurred is known as overhead variance.

It can be expressed as follows:

$$\text{Overhead Variance} = \text{Actual Overhead} - \text{Budgeted Overhead}$$

ii) Capacity Variance

The portion of the overhead variance which is caused by a difference between the actual usage of plant capacity and the planned usage of plant capacity is known as capacity variance. It is calculated as :

$$\text{Overhead Capacity Variance} = FC + (UVC \times SQ) - (SR \times SQ)$$

iii) Overhead Budget Variance

The difference between total overhead cost actually incurred and standard overhead cost for output achieved is known as overhead budget variance, it is presented as follows:

$$\text{Overhead Budget Variance} = \text{Actual Overhead Cost} - \text{Budget Overhead Cost}$$

iv) Overhead Efficiency Variance

The difference between the actual hours worked and the standard hours for actual production is known as overhead efficiency variance. It is calculated as follows:

$$\text{Overhead Efficiency Variance} = \text{UVC} (\text{AQ} - \text{SQ})$$

v) Overhead Spending Variance

The difference between actual rate and standard rate specified is known as spending variance, it is calculated as follows:

$$\text{Overhead Spending Variance} = (\text{AQ} \times \text{AR}) - \text{FC} + (\text{UVC} \times \text{AQ})$$

Overhead variance may be caused by several reasons like as: change in price of overheads, excessive or under utilization of machine capacity, breakdown, Labour absenteeism, strikes, or shortage of labour, change in customer demand and idle time etc.

2.5 Inventory Control

Every business organization however big or small, has to maintain some inventory. Inventories serve as caution to observe the shocks of errors in demand forecast and also provides more efficient use of the resources. Inventory requires valuable space, consumer taxation and insurance charges. (Hearpae; 1968, p. 137)

A significant portion of the capital invested in inventories remains till the items present in stock are not used. Inventory for any organization is a necessary evil and requires careful planning and formulation keeping in view the best interest of the organization.

The techniques of maintaining the size of the inventory some desired level keeping in view the best economic interest of an organization is known as inventory control. Inefficient procedure in purchasing and stocking of inventories result in an unbalanced inventory. Causing some items out of stock and other overstocking. Such inefficiencies ultimately have an adverse effect up on profit. Such inefficiencies are controlled. Only through planning, ordering and scheduling of materials used in the manufacturing process. More specially. “ The purpose of inventory control is to stock an adequate amount of inventory on one hand and on the other hand with minimum

storage and handling cost, obsolescence and deterioration lost, insurance and interest charges and risk of price level changes are to be minimized.

2.6 Cost Reduction

Cost reduction is to be understood as the achievement of real and permanent reduction in the unit cost of goods manufactured or, services rendered without impairing their suitability for the use intended. (Lynch; 1999, p. 376)

It means to say that reduction must be a real one in the course of manufacture or services rendered. Real cost reduction comes through greater productivity. Reduction in the price of inputs and improvements in the method of production form research work.

2.7 Budgetary Control

Budgetary Control is planned to assist the management in the allocation of responsibilities and authority to aid in making estimates and plans for future. To assist in analysis of variations between estimated and actual results and develop basis of measurement or standards with which to evaluate the efficiency of operations. (Lynch; 1999, p. 481)

2.8 Review of Related Studies

In this study, efforts has been made to study the cost control mechanism of DDC. Thus review focused on the literature relating to cost structure of Nepalese Public Enterprises along with the study of Dairy Development Corporation.

Pahari, (2000) who has done research on, “Profit Planning in DDC”, objectives of: examine the present profit planning premises adopted by DDC, analyzes the various functional budgets that are prepared by DDC, evaluate the variances between budgeted and actual achievement of the enterprises, sketch as : DDC has planed only short term plan rather than long term planning and collected milk only by 39 district and distributed their products only in a few urban city, the collections and sales of milk and milk product has smoothly in increasing trend, availability of the manpower are more than its requirements, there is not separate planning department and not planning expert, planning are made only on adhoc basis,

the pricing policies of the corporation is not scientific and the government directly interference to the price of raw milk and milk products, there is not proper coordination between collection, production, inventory and sales department, DDC has suffering the loss all over the research period, financial position of the corporation is not good, net profit margin, return on assets is negative but current and quick ratio is satisfactory, the corporation has not trying to meet BEP, actual sales is lower than BE sales, DDC has not applied any inventory policy, a systematic cash flow plan has not prepared, the top level executives are only involved in planning and decision making task and lower level participation is not encouraged, no performance reporting, reward and punishment system and completely ignored the variance analysis.

Thakur, (2001) who has done research on "Cost control mechanism of Janakpur Cigarette Factory Ltd." in which it was stated that power should not be centralized i.e. authority should be delegated top to bottom level for freedom in the work. Reward and punishment policy should adopted fairly to motivate and discourage them promotion and transfer should be evaluated with their performance in the factory other than political favoritism political appointment of staff should be discouraged. Attention should be paid to reduce overstaffing because it raise unnecessary operation expenses.

Subba, (2002) has conducted a study for master degree thesis on " Cost structure of Nepalese Public Enterprises with reference to Dairy Development Corporation" in which it was stated that material, labour and overhead costs of DDC has increased in the last five years. The company should follow modern tools and techniques at the time of element cost forecast. Material, labour and overhead costs should be classified in most appropriate way so that the controlling measure can be taken to reduce the differences in their growth rates. Compared to other costs, it can be said that the company has been able to manage its overhead cost since it has increased by only about thirty percent from the past five years.

Adhikari, (2004) who has done the research on "profit Planning in Manufacturing Enterprises: a case study of DDC". objectives of analyze the functional budgets on sales and production sector of DDC, analyze various accounting ratios,

major profitability and efficiency of the DDC, analyze the budget target and its achievement along with reason of deviation, provide valuable recommendations and suggestion based on analysis. Mr. Adhikari has summarized his unforgettable finding as: DDC has practice short term planning rather than long term planning, the time is covered by interim period and by product, production and sales of DDC is increasing annually although the growth rate is fluctuated, the correlation between actual and targeted sales is positive, the corporation has no proper practice in segregating cost into fixed and variables, there is positive correlation between targeted and actual production of milk, most of budget figure are higher than actual figure. DDC has applied stable inventory policy with opening stock of inventory but this policy is not applied on practice.

Paudel, (2006) in his master degree thesis " Sales Budget on Profit Planning and Control in manufacturing Public Enterprises", with objective of: analyzed the sales budget prepared by DDC, evaluate the variances between budgeted and actual achievement, compare the sales with profit of DDC, and provide the suitable suggestion and recommendations for the improvement of planning system of DDC. Mr. Paudel has summarized his unforgettable findings as; DDC has not practice of systematic and scientific sales plan, not able to acquaint the comprehensive budgeting techniques, not practice of using statistical tools in sales forecasting, lack with expertise to formulate strategic and tactical plans and to implement it, DDC has clear objectives but it is lagging behinds the means to achieve such objective, sales achievement of DDC are highly fluctuates, DDC adopted traditional pricing method to determine price.

Subedi, (2009), has conducted the research on "Cost volume and profit analysis of Dairy Development Corporation" and conclude that the corporation has not utilized its full capacity because of the lack of raw material inefficiency of management and lack of skilled production specialist. There is a communication gap between top level employee and lower level employee. The decisions and policies are made only by top level management. DDC should immediate seek for drastic change in its policy and should plan for using CVP tools for profit plan. It seems necessary to develop and implement CVP analysis in the DDC. It helps to DDC for better utilization of the limited resources to achieve the corporation goals from the

application on profit planning and control. According to Mr. Subedi, there should be democratic style of management while formulating plans, policies for the organization. The lower level management should be highly encouraged in profit planning and similarity. There should be proper communication to all level of management about the tactical and strategic plan of the organization to run effectively.

CHAPTER- III

RESEARCH METHODOLOGY

Cost control mechanism in the Dairy Development Corporation is the major factor of the high price so there is need of effective cost control system in the factory. The basic objective of the study is to analyze the cost of DDC and to recommend necessary suggestion for the improvement of cost control. To fulfill this objective of the study, appropriate methodology has been followed. So this chapter concerned with the research methodology applied in this study. This study covers research design, sources of data, data collection procedures, data processing and tabulation and analytical tools used.

3.1 Research Design

This present study related with “cost control mechanism of DDC” has been prepared on the basis of five years secondary data and descriptive research design used to access and analyze the highest cost of production. The exploratory design has been used to explore and find out the trend of cost, production, sales and the relationship among them.

3.2 Population and Sample

In Nepal 59 public enterprises are operating till this period, presently study is considered with the cost control mechanism of DDC, show the population as a whole has been taken into consideration while taking the data and analyzing the data.

This search covers the period of five fiscal year i.e. 2060/061 to 2064/065, because of the time constant and expenditure. DDC have largest and higher transaction therefore the researcher want to task of this enterprises only.

3.3 Sources of Data

The following sources have been used to collect necessary data:

- i) The annual reports of DDC which comprised balance sheet and income statement.
- ii) Published reports and bulletins of the corporation.
- iii) Unpublished official records.
- iv) Relevant previous studies and publications.

3.4 Data Collection Procedure

For the completion of any thesis report reliable data and information are very essential because, without reliable data and information a thesis report can never be perfect and can never be able to fulfill the objective of the thesis report. Therefore, for the account section. Production section, personal management department of DDC. Verification and clarification of data has been done through personal interview and discussion with concerned authority where ever is possible.

3.5 Types of Data

Secondary data are only used in this report. They are as follows:

1. Annual reports
2. Bulletins
3. Reverent previous studies and publications of DD

3.6 Data processing and Tabulation

First of all, collection data are compiled organized, tabulated and processed according to the need and objective of the study. Data for five years 061-062 to 064-065 are presented on table according to time series.

3.7 Analytical Tools Used

Since the study is concentrate on cost control aspects of DDC. Some important cost control tools like cost volume profit analysis. Labor cost control and standard costing have been used. There are also simple statstical tools like average, percentage trend and correlation analysis have been used.

3.7.1 Financial Tools

In this research study various financial tools are employed for the analysis. There are more than 100 techniques of cost identification, but in this study some selected cost control techniques are used.

3.7.1.1 Cost Volume Profit Analysis

The CVP analysis helps in finding out the relationship of cost and revenue to volume. It is a device used to determine the usefulness of profit planning process of the firm. Really speaking there is interrelationship between cost volume and profit planning. However, it should be noted that the formal profit planning and control involves the use of budgets and other forecasts and CVP analysis simply provides an overview of the profit planning process and helps to evaluate the purpose and reasonableness of such budgets and forecasts. CVP helps to determine the minimum sales level to avoid losses and sales volume at which the profit goal of the firm will be achieved. It also helps management to choose the most profitable combination of costs and volume. CVP analysis can be used by a dynamic management of its short run decisions about price for its profit plans on a continuous basis.

3.7.1.2 Labour Cost Control

Labour cost is one of the important tools for cost control analysis. Labour, once lost, can not be recouped and is bound to increase the cost of production. So, labour costs constitute a significant portion of the total cost of a product. It may be excessive due to inefficiency of labour, more wastage of material by labour due to lack of proper supervision, high labour turnover, idle time and unusual overtime work, inclusion of bogus workers in the wages sheet and many other related factors. Therefore, economic utilization of labour is a need of the present day industry to reduce the cost of production of the products manufactured or service rendered.

3.7.1.3 Standard Costing

Standard costing is a very important system of cost control. It is important to determine what a product should cost, and if the actual cost is more than the determined cost. Then why it is so. Standard costing aims at eliminating the wastage and increasing efficiency in performance through setting up standards for production expenses and production performances. A standard costing system eliminates the effect on job costs of fluctuations in volume of output by separating the cost of idle facilities because standard costs have been defined as the normal costs for normal production efficiency at a normal level of output. The system of standard costing can be more commonly used in industries producing standardized products which are repetitive in nature.

3.7.2 Statistical Tools

In this study, following statistical tools are used:

3.7.2.1 Trend Analysis

In cost structure analysis, the direction of changes over a period of years is crucial important. Trend analysis of ratios indicates the direction of change. This kind of analysis is particularly applicable to the items of profit and loss account.

Trend analysis is a significant tool of horizontal cost analysis. It is a dynamic method to indicate the change and derivations in items of cost statements. Trend analysis help of identify the controllable in items of given period and future forecast can be made for on going concern. It is one of the useful tools in making a comparative study of the cost statements of the number of years. It makes easy to identify the change in an item or in group of items over a period of time and to draw in a group of items over a period of time and to draw the conclusions regarding the changes there on.

Trend relationship is the ratio analysis and interpretation of the items of the comparative cost statements of different period. Trend analysis reveals the direct of change or is guide to the movements of different periods. This way the favourable situation of business revealed.

Utility of Trend Analysis

The analysis of trend is great significance for DDC which are given below:

(i) It helps in the analysis of past behaviour of a variable:

Analysis of past data disclose the effect the various factor on the variable under study. These studies isolate and analysis the effect of various sets of homogenous factors on the problem under study.

(ii) It helps in forecasting:

The analysis of past conditions is the basis of forecasting the future behaviors of the variable under study.

(iii) It helps in evaluation of current achievement:

The review and evaluation of progress made on the basis of a plan are done on the basis of time series data. Similarly, the evaluation of our policy of controlling inflation and price rise is done by the study of various prices indices which are based on analysis of time series.

- (iv) It helps in making comparative studies:
Once the data are arranged chronologically comparison between one time period and another is facilitated. It provides a scientific basis for making comparisons by studying and isolating the effect of various components of a trend.

3.7.2.2 Measurement of Trend Analysis

There are two important methods for trend analysis measurement which are given below:

a) Graphic Method

This is the simplest method of studying trend. The procedure of obtaining a straight line trend method is given below:

- (i) Plot the time series in a graph.
- (ii) Examine carefully the direction of the trend based on the plotted information.
- (iii) Draw a straight line which will best fit to the data according to personal judgment. This now shows the direction of the trend.

The following points must be kept in mind in drawing a graphic curve.

- (i) The curve is smooth-either a straight line or a combination of long gradual curves.
- (ii) The number of points above the line or curve are equal to the points below it.
- (iii) The sum of vertical deviations of the point above the smoothed line is equal to the sum of the vertical deviations of the points below the line.
- (iv) The sum of the square of the vertical deviations of the observations from the trend should be as small as possible.

b) Method of Least Square

This method is most widely used in practice. It is a mathematical method and with its help a trend line is fitted to the data in such a manner that the following two conditions are satisfied:

(i) $(Y - Y_o) = 0$

i.e. the sum of deviations of the actual values of Y and the computed values of Y is zero.

(ii) $(Y - Y_o)^2$ is least

i.e. the sum of the squares of the deviations of the actual and computed values is least from this line and hence the name of least square. The line obtained by this method is known(as the line of best fit)

The method of least squares may use to fit a straight line trend. The straight line trend is represented by the equation.

$$Y = a + bx$$

where,

Y= estimated values of dependent variables.

x = time in trend analysis

a = Y-intercept

b = slope of trend line

Whenever, fit any straight line trend by least squares method. Three things should be specified.

(i) Which year was selected as the origin?

(ii) What is the unit of time represent by x?

(iii) In what kind of units is Y being measured. is it production in tones, sales in rupees, prices in rupees etc.

3.7.2.3 Correlation

Correlation is a statistical technique which measures and analyses the degree or extent to which two or more variables fluctuate with reference to one another. correlation thus denotes the interdependence amongst variables. The degree of relationship between the variables under consideration is measured through the correlation analysis. The measure of correlation called the correlation coefficient or

correlation index summarizes. The correlation analysis refers to the techniques used in measuring the closeness of the relationship between the variables.

In business, correlation analysis enables to executive to estimate costs, sales, prices and other variables on the basis of some other variables on the basis of some other series with which there costs, sales or prices may be functionally related. Some of the guess work can be removed from decision when the relationship between a variable to be estimated and the one or more close and reasonably invariant. However, it should be noted that coefficient of correlation is one of the most widely used and also of the most widely abused statistical measures. It is abused in the sense that one some times over looks the fact that correlation measures are nothing but the strength of linear relationship and that it does not necessarily imply a cause effect relationship.

Use of Correlation

The use of correlation to the fields of business and economics for following manner:

- (i) Economic theory and business studies show relationship between variables like price and quantity demanded, advertising expenditure and sales etc. The correlation analysis helps in deriving precisely the degree and directions of such relationships.
- (ii) The relationships between variables are studies under various economic laws or the concepts like the law of demand and the elasticity of demand. The advantages of stastical techniques of correlation is that the average of relationship in a series can be summed up in a single value of changes called the coefficient of correlation.
- (iii) The effect of correlation is to reduce the range of uncertainty of our prediction. The prediction based on correlation analysis will be more reliable and near to reality.
- (iv) The concept of regression and ratio of variation are also based upon the measure of correlation.

Coefficient of Correlation

Coefficient of correlation is calculated to study the extent or degree of correlation between two variables. The correlation between two variables does not

mean that their relationship is functional or constant. If the value of the variable is known, it is not always possible to obtain the exact value of the other variable. This can be done only where there is linear relationship between the two variables. In these two variables, one relating to radii of various circles and the other relating to their areas.

The coefficient of correlation between the two limits of +1 and -1. When there is positive correlation its value is +1 and when there is negative correlation its value is -1. Its mid-point is zero, which indicates absence or there is no correlation. As the value of this coefficient decreases from the upper limit of +1. The extent of positive correlation between the two variables also declines. When it reaches the value of zero it indicates complete absence of correlation and when it goes further down in negative values (less than zero), it indicates negative correlation.

Karl Pearson's has given a formula for the calculation of coefficient of correlation. According to him the coefficient of correlation of two variables is obtained by using following formula

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

Where, $x = (X - \bar{X})$ $y = (Y - \bar{Y})$

CHAPTER- IV

PRESENTATION AND ANALYSIS OF DATA

The main objective of the study is to examine, “Cost control mechanism of DDC”. For accomplishment of this objective, a definite course of research methodology has been followed, which is described in third chapter. In this chapter primary and secondary data are used to accomplish basic objectives. The primary data are used for segregation of costs into variable and fixed costs. Similarly, secondary data are used to analyze other related information.

4.1 Cost Volume Profit analysis

Cost- volume profit analysis is an analytical technique studying the relationship among volume, costs (fixed and variable), prices and profits. It is a device used to determine the usefulness of the profit planning process of the firm. In fact, the entire field of profit planning has become associated with the CVP interrelationships. However, it should be noted that the formal profit planning control involves the use of budgets and other forecasts and CVP analysis simply provides an overview of the profit planning process and helps evaluate the purpose and reasonableness of such budgets and forecasts. As a starting point in the cost control. CVP helps to determine the minimum sales volume to avoid losses, and the sales volume at which the profit goal of the firm will be achieved. It helps management to seek the most profitable combination of costs and volume.

The CVP analysis is immensely useful to management as it provides an insight into the effects and inter-relationship of the factors which influence the profits of the firm. It is with the help of the CVP analysis that the accountant is enabled to present facts and figures in accurate reports and intelligible charts to management for action.

Table 4.1
Cost volume profit analysis of DDC

(Rs. in Million)

Year	Sales	Variable Cost	Fixed Cost	Contribution Margin	P/V Ratio	B.E.P. Sales	MoS
2060/061	1535.81	1287.25	222.11	248.56	16.81%	1372.38	163.430
2061/062	1589.86	1397.20	234.99	192.46	12.11%	1940.94	(351.285)
2062/063	1536.34	1308.79	272.74	227.55	14.81%	1841.45	(305.107)
2063/064	1680.35	1448.74	279.84	236.61	13.78%	2030.26	(349.913)
2064/065	1800	1621.89	282.32	178.11	9.89%	2853.16	(1053.16)

Sources: Annual Report of DDC

4.1.1 Variable Cost Analysis

Variable costs are based on activity. The variable costs should be zero at zero activity. They change directly with changes in activity level in a responsibility center. Therefore, if output is doubled, variable expenses is to be doubled, if output increase by 15 percent the variable expenses also increase by 15 percent, if output is zero, the variable cost also zero. But variable cost per unit cost might be changed due to increase in price of material, labour and inventory costs etc.

Table 4.2
Variable Cost Sheet of DDC

Details	Fiscal Year				
	2060/061	2061/062	2062/063	2063/064	2064/065
1. Cost of Milk					
Purchase of Milk	1045469720	1100969720	1078769720	1167403720	1336705324
Labour cost of transportation	33904	45504	51154	76512	82219
Chemicals and detergent	3637340	4797340	4681340	4560540	4891250
Other dairy products	1869116	1985116	1929116	1808316	1852249
Water and Electricity	36085872	39245872	38085872	37965072	38562298
Allowance	7164428	8324428	8208428	8087628	8181581
Fuel	62119532	73719532	73603532	73482732	73985236

Scheme milk power expenses	39656569	51256569	45656569	45535769	45924129
Other raw materials	1892398	3052398	2936398	2815598	3001577
Packing goods	60355588	80355588	68755588	68634788	68800999
Cheese, butter, other transportation	927164	1004713	888713	767913	892154
Total	1259211631	1364756780	1323566430	1411138588	1582879016
2. Administrative Cost					
Allowance	3982786	5284786	6344786	6460786	6585214
Water and Electricity	24572	36172	47772	59372	65252
Fuel	1649188	2902487	4035503	5195503	5225269
Total	5501620	8223445	10428061	11715661	11875735
3. Selling and Distribution Cost					
Allowance	2174864	2334864	2450864	2566864	2659821
Water and Electricity	153826	154986	143386	154986	165248
Fuel	3450546	4610546	4770546	4886546	4949125
Milk carrying cost	16678805	17030949	16914949	18074949	19154268
Travelling expenses	88446	89606	205606	206766	210494
Total	22546487	24220951	24341965	25890111	27138956
Total variable cost	1287259738	1397201176	1358336456	1448744360	1621893707

Sources: Annual Report of DDC

4.1.2 Fixed Cost Analysis

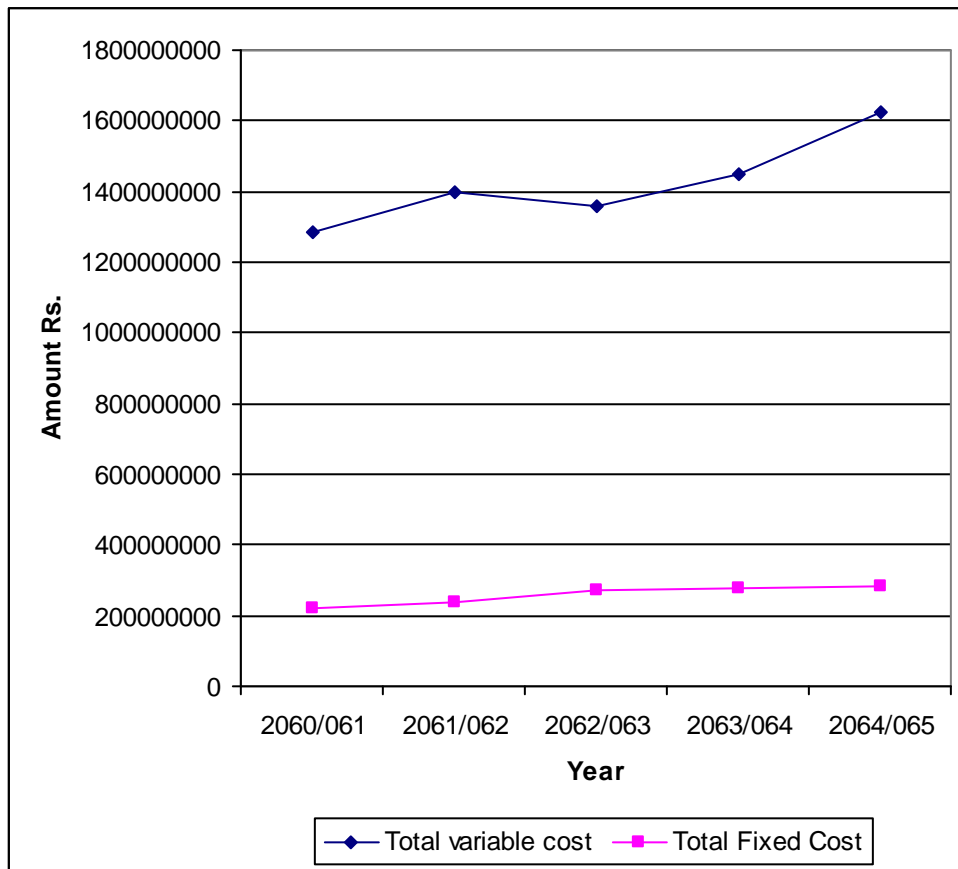
Fixed cost are cost associated with those inputs, which do not vary with the changes in volume of output or activity within a specified range of activity or output (relevant range). Fixed costs, thus, remain constant whether activity increases or decreases within a relevant range. For example, the rent of the factory or office premises, property, insurance, senior executives salaries, lease payments, depreciation etc. remain the same whether there is an increase or decrease in the volume of activity.

Table 4.3
Fixed Cost Sheet

Details	Fiscal Year				
	2060/061	2061/062	2062/063	2063/064	2064/065
1. Cost of Milk					
Chemicals and detergent	1503363	1536696	1475586	1542252	1575534
Water and Electricity	170646	171090	170702	170868	168854
Traveling Expenses	30055447	31066115	30455005	31232782	34649890
Other raw materials	1114536	1147869	1138981	1216758	1153424
Repair and Maintenance	66431195	76920084	69126862	83817310	75136886
Insurance	3011375	3044708	2946932	3023598	2655819
Total	102286563	113886563	105313569	121003568	115340407
2. Administrative Cost					
Salary	56080104	56862105	84195107	78939552	80048499
Allowance	4126469	4148691	4926468	4882024	4904246
Water and Electricity	19581	19803	20136	20025	19914
Insurance	8812643	8834865	9612642	9544160	9479309
Fuel	34034265	34367598	50478709	47145376	54649890
Total	103073062	104233062	149233062	140531137	149101858
3. Selling and Distribution Cost					
Storage	8959583	9037360	9704026	9770692	9479309
Traveling	4701168	4745612	5183945	5217278	5042548
Advertisement	3095741	3089520	3308122	3324123	3360920
Total	16756491	16872491	18196092	18312093	17882777
Total Fixed Cost	222116116	234992116	272742723	279846798	282325042

Sources: Annual Report of DDC

Figure 4.1
Variable and Fixed Cost Trend of DDC



4.1.3 Contribution Margin

The difference between sales revenue and variable cost is known as contribution margin. Conceptually, this is the contribution made by the sales of any period, after coverage of all applicable variable costs towards the cover of the fixed costs of the period and the realization of profit. The contribution margin can be calculated by applying following formula.

$$\text{Contribution Margin} = \text{Sales} - \text{Variable Cost}$$

The contribution margin of DDC in FY 2060/061 to 2064/065 were Rs.248.56 million, Rs. 192.46 million, Rs.227.55 million, Rs.236.61 million and Rs.178.21 million respectively. Above data shows that the contribution margin between observed period are in fluctuating nature. The contribution margin of the DDC is not in satisfactory condition, DDC was going on loss per year. Corporation could not

avoid such loss without increase in sales revenue or, decrease in proportion of variable and fixed costs.

The above analysis shows that contribution margin were not sufficient to meet all of its fixed cost and DDC was suffering from loss during the study period. The main causes of loss were increasing trend of fixed and variables cost.

4.1.4 Profit Volume Ratio

Profit volume ratio indicates the relationship between contribution and turnover. It measure the relative contribution of a company for different period. It can be calculated by using following formula

$$P/V \text{ ratio} = 1 - \frac{V}{S}$$

1. The P/V ratio of DDC in FY 2061/061 to 2064/065 were 16.81%, 12.11%, 14.81%, 13.78% and 9.89% respectively. It shows maximum sales in FY 2064/065 and minimum sales in FY 2060/061 & FY 2062/63, maximum P/V ratio in FY 2060/061 indicates that proportion of sales revenue were higher than the proportion of variable cost and vice versa.

4.1.5 Break Even Analysis

The break even point determines the equilibrium point where total revenue equals to total costs and profit is zero. For break even point to occur, it is necessary that firm has some fixed and variable costs. It may expressed as follows:

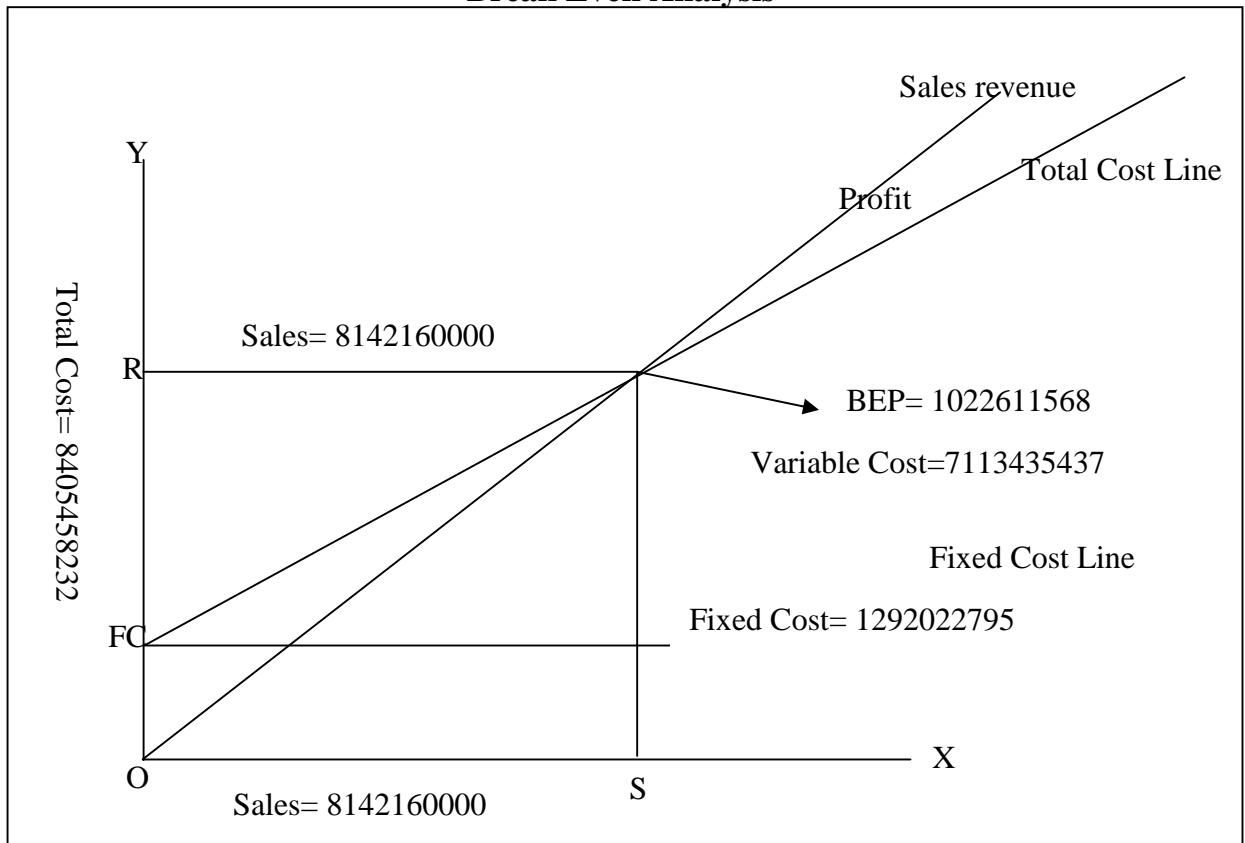
$$B.E.P.(\text{units}) = \frac{\text{Total fixed cost}}{SPPU - VCPU}$$

$$B.E.P.(\text{in Rs.}) = \frac{\text{Total fixed cost}}{P/Vratio}$$

The break even point analysis of DDC showed in FY 2060/061 to FY 2064/065 were Rs.1372.38 million, Rs.1940.94 million, Rs.1841.45 million, Rs.2030.26 million and Rs.2853.16 million respectively. The BEP of the DDC in FY

2060/061 to FY 2064/065 were in increasing trend, which indicate that DDC should have to increase the sales revenue to a great extent to meet the total cost.

Figure 4.2
Break Even Analysis



y, o axis on the above chart indicate the total cost, whereas o,x axis indicate the sales revenue . The above chart shows that fixed cost is always equal within a certain level of activity, so fixed cost curve is parallel to x-axis. The cost curve is sloping upwards to right side because total cost amount increase with increase in sales revenue. Total cost curve starts from fixed cost line. The amount of fixed cost for the observation period were Rs.1292.02 million is also total cost when the sales revenue is zero. The sales revenue curve originates from the origin because sales revenue is zero when the sales volume is zero. The chart shows that the sales revenue curve is sloping upwards to right. An equilibrium point between total cost and total revenue curve is known as break-even point where both the total cost and total revenue is equal Rs.10226115618 (for aggregate five years). If the actual sales amount is more than break even sales, the firms will earn profit and if the actual sales

amount is less than the break even sales, the firm will suffer from loss. Above chart clearly shows that the actual sales amount Rs.8142160000 is lesser than the total cost amount Rs.8405458232, which generates the loss of Rs.263298232.

4.1.6 Margin of Safety

The margin of safety is the difference between the total sales and the break even sales. The size of the margin of safety is indication of the strength of the company. A firm is strength when it must have high margin of safety and vice versa. The margin of safety can be calculated with the help of following formula:

$$\text{MOS} = \text{Total actual sales} - \text{B.E.P sales}$$

The margin of safety in DDC in FY 2060/061 to 2064/065 were Rs.163.43 million, Rs.(351.285) million, Rs.(305.107) million, Rs.(349.913) million and Rs.(1053.16) million. Thus amount of margin of safety in FY 2060/061 is only positive but the other years margin of safety is negative, it indicates that the company break even sales always exceed the actual sales, which results loss over the four year study period.

To conclude, the contribution margin of DDC were found not sufficient to meet all of its fixed costs and the DDC actual sales for four years study period always lower than break even sales volume. Therefore, company was suffering from losses due to high proportion of variable cost and increasing fixed costs.

4.2 Labour Cost Control

Labour cost is the cost of remuneration of the employees of an undertaking. Labour constitutes often 50 % of the cost to product and article. It is subject to product and article. It is subject to wastage like any other factor of production. It should always be remembered that labour is the one factor of production which is capable of increasing in productivity. In other cases physical limitations set a limit to the output that can be obtained from given quantity of input. Good production management and therefore, cost control demands that there should be a constant study of labour efficiency and the ways and means to improve it. The one point that will be worth remembering always is that it is the will to work that is the most important single factor in this respect.

Certain items of labour cost control related with DDC which are given below:-

- . Idle time
- . Absenteeism
- . Labour turnover
- . Time recording

4.2.1 Idle time

Where worker are remunerated on a time basis, some difference may occur between the time for which they are paid and the time that they have actually spent for production. This time difference is known as idle time.

DDC does not keep idle time record but idle times are happening by several causes like as production. Economic causes. Production causes are those which arise out of waiting of materials, machinery break down and unutilized man power. DDC workers wasted time excessively due to break down of machinery parts of oldness. It has been brought when factory was established. Now it is not in good working condition and its salvage value is zero.

DDC production process are divided into two parts:

- i) Collection department
- ii) Processing department

Collection department collect the raw material (milk) from various area and provide those raw material for further processing to processing department. Processing department collect the raw material and do some operational activity and packed finished product(milk, curd, panir, rasbari etc.)

4.2.2 Absenteeism

Worker absenteeism also responsible for overtime creation. DDC staff and workers are separated on the basis of machines and shifts. The machines are operating on the basis of labour. If one worker are absent in duty machine cannot operate and production target can not achieve in time. For achievement production target

corporation must be necessary to work in overtime. So absenteeism plays vital role to create overtime.

Table 4.4
No. of Absenteeism in DDC

Year	Worker	Average days of absent
2060/061	1010	4
2061/062	1005	3.91 = 4
2062/063	998	3.94 = 4
2063/064	992	3.50
2064/065	990	4

Sources: Annual Report of DDC

Above data shows that DDC staffs and workers absenteeism average 3.50 to 4 days in a month, which push to work do in overtime because normal daily target of production can not achieve due to absenteeism of worker or break down of machinery.

4.2.3 Labour Turnover

Labour turnover denotes the percentage change in labour force of an organization high percentage of labour denotes that labour is not stable and there are frequent changes in the labour forces because of new workers engaged and workers who have left the organization. A higher turnover is not desirable for factory. There are three methods of labour turnover measurement, but DDC have not done recruitment and selection of worker in FY 2060/61 to 2064/65. So, separation method is only appropriate for calculating labour turnover.

a) Separation Method

This method is calculating on the basis of number of worker left during a period and average number of worker during a period. This definition does not taken

into consideration the fact of surplus labour. It will give incorrect result when the surplus workers are discharged because labour turnover calculated in this way will be high. The effect of a high or low turnover ratio should be analyzed on training basis, on production efficiency and employee morale.

The following formula can be used determining labour turnover according to separation method

$$\text{Labour turnover} = \frac{\text{No. of employee left during a period}}{\text{Average no. of employee during a period}} \times 100$$

Table 4.5
Labour Turnover

Years	Turnover ratio
2060/061	0.99
2061/062	0.50
2062/063	0.70
2063/064	0.60
2064/065	0.20

Sources: Annual Report of DDC

The above data shows that DDC labour turnover ratios were flexible trend. There must be some labour turnover due to personal an unavoidable causes. It has been observed by the employers that a normal labour turnover, which is between 0.20% to 0.99% need not cause much anxiety. DDC in FY 2060/061 to FY 2064/065 turnover ratio were 0.99%, 0.50%, 0.70%,0.60% and 0.20% respectively which were applicable because these ratios lie between 0.20% to 0.99%. The workers may leave the factory purely on personal causes like as retirement due to old age, accident making workers permanently incapable of doing work, death of workers, finding better jobs at some other place and cases involving moral turpitude. In all such cases labour turnover is unavoidable.

4.2.4 Time Recording

DDC time recorder records the time of arrival and departure of the workers in security y section. The record of time is kept normally fourth time a day. The objective of time recording helps the administration to keep the workers under discipline and wages calculation on the basis of working hours. The worker leave the corporation premises for lunch break, the time keeper keeps the arrival and departure time. If somebody waste maximum time outside the corporation, then they get the punishment to improve for delay. So, time recording system is very good system in DDC it also help in labour cost control.

4.3 Standard Costing

Standard costing is only a means to an end it aims at control cost performance it is essential for building a budgeting and feedback system for management decision making indeed it provides a frame work for judging performance. Standards are predetermined against which actual costs are compared to obtain variances raise questions they do not provide answers. Analysis of variance allows management to take corrective actions in order to prevent recurrence of the events which brought about the variances. However, it is extremely important to identify variances to coat responsibility centre's for making the corrective action effective.

There is no doubt that the increased accuracy obtained from standard costing will inspire management to look more and more to costs as a guide to decision making standard costs techniques, therefore, leads to positive improvement in efficiency, so standard costing is an effective tools for cost control purpose.

4.3.1 Variance Analysis

The word variance is derived from the world vary of variation. In cost accounting. The divergence between planned result and actual result is known as variance. The prime object is known as variance. The prime objective of standard costing is to reveal the difference between actual costs and standard costs. A variance is standard costing refers to the divergence of an actual costs from standard variance of different cost items provide the key to cost control. They indicate whether, and to

what extent, standards set have been achieved. This enables management to correct adverse tendencies if any.

Variance analysis refers to an examination of the conditions of operation which gives rise to any cost variance. It provides an explanation as to why and how variances have arisen. Variance analysis involves not only the examination of causes but also the determination of the contribution of caused factor to the overall variances. It implies suitable steps for the control of cost wherever necessary.

4.3.2 Direct Material Variance

Milk is the one and only major raw material of DDC, without input no output is possible so for the cost control of the cost of raw material is seemed to be very essential. Management is not aware about the cost of raw materials it is never through that this much will be material cost for that much of sales volume and production volume and so on. So direct material variance always help to cost control of materials because materials variance always comparison among standard material, actual material cost, and quantity etc. then find out difference among them and take proper action where is necessary.

4.3.2.1 Material Cost Variance

The difference between total standard cost of material allowed for the output achieved and total actual cost of material used is known as material cost variance. It can be expressed as follows:

$$MCV = (SQ \times SP) - (AQ - AP)$$

Table 4.6
Material Cost Variance

Year	Material cost variance
2060/61	32643.80 F
2061/62	19945.50U
2062/63	95858.90 U
2063/064	445270 U
2064/065	484622 U

Sources: Annual Report of DDC

From the above table, it is clear that the material cost variance of DDC in FY 2060/061 was favorable by Rs.32643.80 and 2061/062 to 2064/065 were adverse by Rs.19945.50, Rs.95858.90, Rs.445270 and Rs.484622 respectively. The table also shows maximum adverse in FY 2064/065 and minimum adverse in FY 2061/062. So above data shows DDC adverse amount were flexible trend in FY 2060/061 to 2064/065 due to high carrying cost of material out side.

4.3.2.2 Material Price Variance

The portion of the material cost variance which is due to the difference between the standard price specified and actual price paid. It is computed as follows:

$$MPV = AQ (SP-AP)$$

Table 4.7
Material Price Variance

Year	Material price variance
2060/061	515103.80 F
2061/062	1141520.50 U
2062/063	1372112.91 U
2063/064	536840 U
2064/065	2025560 U

Sources: Annual Report of DDC

From above table it shows that M.P.V. of DDC in FY 2060/061 was favorable and in FY 2061/062 to 2064/065 were adverse by Rs.1141520.50, Rs.1372112.91, Rs.536840 and Rs.2025560 respectively, it means to say that M.P.V. were fluctuating trend in study period. The table as shows that maximum adverse in FY 2064/065 by increase price per liter of milk.

4.3.2.3 Material usage variance

The portion of the material cost variance which are due to the difference between the standard quantity specified and actual quantity used are known as material usage variance. The M.U.V. may be calculated by using following formula:

$$\text{MUV} = \text{SP}(\text{SQ}-\text{AQ})$$

Table 4.8
Material Usage Variance

Year	Material usage variance
2060/061	482176.2 U
2061/062	1122894.50 F
2062/063	1278381.09F
2063/064	982626.90 F
2064/065	1543873.12F

Sources: Annual Report of DDC

From above table it is observed that the M.U.V. of DDC in FY 2061/062 to 2064/065 were favorable by Rs.1122894.50, Rs.1278381.09, Rs.982626.90 and Rs.1543873.12. Out of FY 2061/062 M.U.V were increasing trend. The maximum increased in FY 2064/065 and minimum favorable in FY 2063/064.

In conclusion, material usage variances were favorable due to defective of machinery and wrong specifications of materials by planning engineer etc.

4.3.3 Labour Cost Variance

Labour variance implies the maintenance the costs with in predetermined limits. When standard costs can be set and employed the problems of control tend to be greatly simplified.

In broad terms the concept of labour variance refers to most economical use of labour in factory. Generally, companies have to pay approximately the same price as standard determined to earn an adequate return on capital employed. It is essential to aim at minimum labour cost with maximum production; bearing in mind the price to be charged management should be for costing and planning followed by the execution of the plans. These should be measured at all stages of labour variance for cost control. The actual labour costs include are compared with the standard labour cost find out the variances and take corrective action wherever necessary for avoid labour variances.

Table 4.9
Labour Cost Variance

Year	No. of employees	No. of decrease	Total salary	Difference
2060/061	1010	-	56080104.00	-
2061/062	1005	5	56862105.00	1.39%
2062/063	998	7	84195107.00	48.07%
2063/064	992	6	78939552.00	(6.24%)
2064/065	990	2	80048499.00	1.40%

Sources: Annual Report of DDC

Above table shows that employees of DDC in FY 2060/061 to 2064/065 were decreasing trend per years by 5, 7, 6 and 2 workers due unavoidable circumstances. The wages and salary of employees were increasing per year of total salaries in FY 2060/061 to 2064/065 were 1.39%, 48.07%, -6.24% and 1.40% it shows total salaries ratio were fluctuating trend because it is given on the basis of number of worker and staff of DDC.

4.3.4 Overhead Variances

First of all we know about meaning of overhead cost and overhead variance before analysis of DDC overhead variances

The aggregate of indirect material cost, indirect wages, indirect labour cost and indirect expenses are called overhead cost and difference between standard and actual indirect costs are called overhead variances. It is necessary to consider all these indirect costs which are described as overhead and which relative either to business as a whole or to a particular location or functions.

In this way amounts spent by a concern in carrying on day to day work, except those on prime cost may be treated as overheads it compares indirect materials, indirect labour and other indirect expenses. Overhead must not be ignored while ascertain the cost of production because it often from a considerable proportion of the total cost management should must consider very careful the effects that its decision will have on the level of overhead.

The total overhead costs are conveniently divided under three heads as below:

i) Factory Overhead

All expenses incurred inside a factory and for the benefit of manufacture as such will be include in factory expenses. These are following:

- a) Wages paid to indirect workers such as watch and ward staff, repair gangs, foreman etc.
- b) Works managers salary and fee paid to directors devoting their attention to production problems.
- c) Workers canteen and welfare expenses.
- d) Contribution to any social security schemes such as the employees insurance.
- e) Provident fund contribution by the company
- f) Carriage in ward on material purchased if such carriage has not been include in the cost of materials.

- g) Materials of small value whose accounts are not kept.
- h) Buying and storekeeping expenses including value of normal losses.
- i) Normal idle time wage of direct workers if this has not been charged out to job through inflation of wages rates.
- j) Factory rent and rates.
- k) Insurance or factory premises, plant etc.
- l) Factory lighting.
- m) Power and fuel
- n) Depreciation on plant and machinery.
- o) Works stationery and cost of works telephone.

ii) Office and Administrative Overhead

All the expenses relating to general administration will be include in office and administrative overheads. These are following:

- a) Salary of General Manager, Finance Manager, Accountant, secretary their staffs etc.
- b) Office rent and rates and repairs and depreciation of office premises.
- c) Depreciation and repairs of and power required for office equipment.
- d) Insurance of office premises and equipment.
- e) Fees of directors (other than those connected with sales and production.)
- f) Telephone, telegram and postage
- g) Printing and stationery
- h) Audit fees
- i) Gratuity
- j) Legal charges
- k) Leave compensation
- l) Bank charges.
- m) Interest on loan.
- n) Medical facility.
- o) Direct allowances.

iii) Selling and Distribution Overhead

Selling expenses from no part of the cost of production. The line between making and selling is clearly drawn. Nor it is possible to set down any comparable figures for production and selling cost. These are following:

- a) Salaries of the sales manager and his staff including his office staff and salesman.
- b) Traveling expenses and commission payable to salesman.
- c) Advertising and showroom expenses.
- d) Printing of catalogues and price lists and general stationery.
- e) Rent of finished good, godowns and their repairs etc.
- f) Show room expenses including rent and lighting etc.
- g) Packing and carriage outwards.
- h) Insurance of finished goods, godowns show room and goods internist.
- i) Fees of directors who pay attention to sales.
- j) Telephone and postage.
- k) Depreciation of delivery van etc and their running expenses.
- l) Entertainment expenses.

Table 4.10

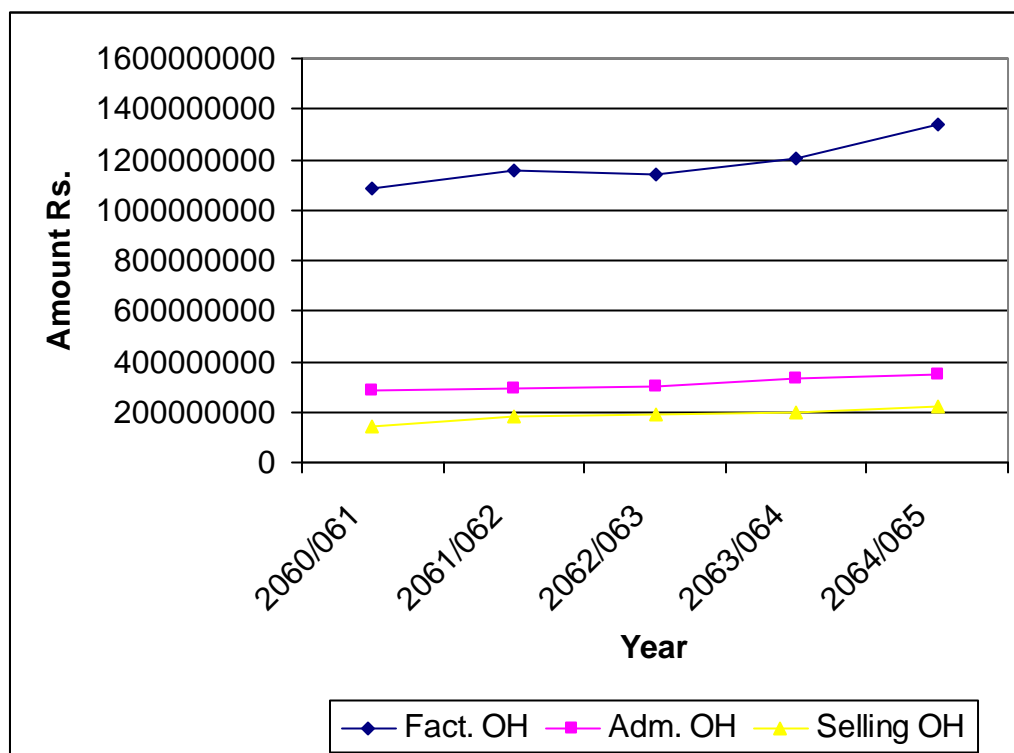
Schedule of Factory, Administrative and Selling Overhead

Year	Fact. OH	Difference	Adm. OH	Difference	Selling OH	Difference
2060/061	1082555567	-	285771926	-	141048361	-
2061/062	1158921797	7.05%	293744750	2.79%	179526745	27.28%
2062/063	1142929724	-1.38%	300795094	2.40%	187354371	4.36%
2063/064	1203151396	5.27%	330251042	9.79%	195196747	4.19%
2064/065	1338512109	11.25%	344821094	4.41%	220885547	13.16%

Sources: Annual Report of DDC

Figure 4.3

Trend Line of Factory, Administrative and Selling Overhead



The above table and figure shows that factory overhead cost were increasing trend out of FY 2062/063. The percentage of increasing in FY 2061/062 were 7.05% whereas percentage of increasing in FY 2063/064 to 2064/065 were 5.27% and 11.25% respectively.

The above table and figure also shows that administrative overhead cost were increasing trend. The percentage of increasing in FY 2061/062 to 2064/065 were 2.79%, 2.40%, 9.79% and 4.41% respectively.

The table and figure also shows that selling overhead in FY 2061/062 to 2064/065 were increasing trend. The percentage of increasing in FY 2061/062 to FY 2064/065 were 27.28%, 4.36%, 4.19% and 13.16% respectively.

4.4 Trend Analysis

The trend analysis is used to determine patterns in data collected overtime, in this topic various data related to cost structure of DDC have been analyzed by the method of least square to fit straight line trend of DDC during FY 2060/061 to FY 2064/065. The actual trend lines of respective variables are also plotted in graph. In

our study, the variables like, variable cost, fixed cost, factory cost, administrative cost, and selling expenses. This analysis includes both crude and calculated data of DDC.

For estimating straight line trends of these variables, following equation is used:

$$Y = a + bx.$$

Where,

Y = estimated value of dependent variables.

X = time in trend analysis(independent variables)

a = Y-intercept

b = slope of the trend line.

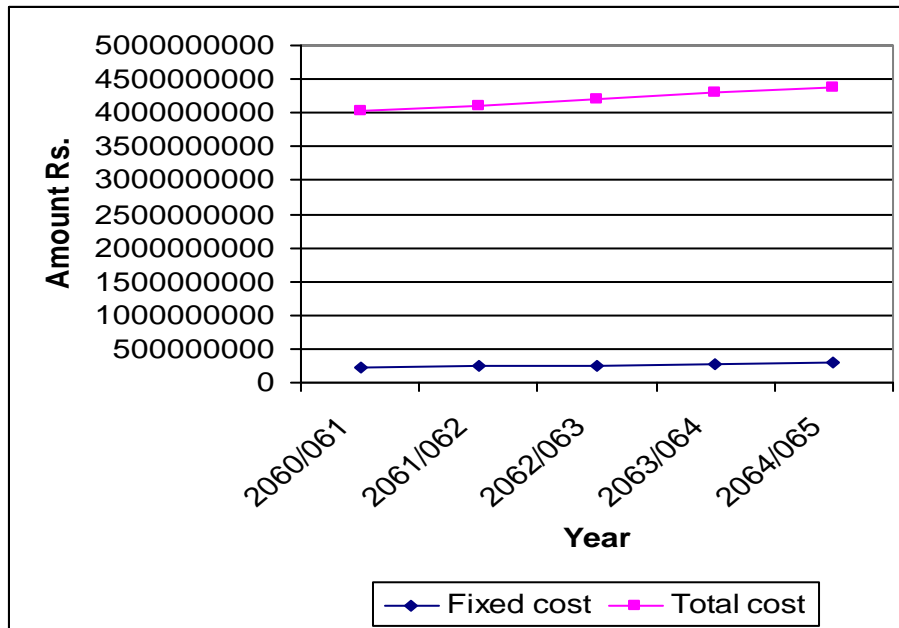
By solving above equation of these different variables, the value o Y-intercept, slope of the trend line and estimated value of dependent variables are obtained which are summarize in following table, however, the detail calculation are shown in appendix.

Table 4.11
Trend Analysis Result

Variables	a	b	Estimated value of dependent variables (Y)				
			2060/061	2061/062	2062/063	2063/064	2064/065
Fixed cost	258404559	16527253.4	225350052.20	241877305.20	258404559.00	274931812.40	291459065.80
Variable cost	1422687087	92081112.20	1238524862.6	1330605974.80	1422687087.00	1514768199.20	1606849311.40
Total cost	4202729116.00	88608365.60	4025512384.80	4114120750.40	4202729116.00	4291337481.60	4379945847.20
Factory cost	1185214118.60	55614268.30	1073985582.00	1129599850.30	1185214118.60	1240828386.90	1296442655.20
Adm. Cost	311076781.20	15460462.80	186755.60	295616318.20	311076781.20	326537244.00	341997706.80
Selling Cost	184082354.20	17534437.40	149013479.40	166547916.80	184082354.20	201616791.60	219151229.00
Sales revenue	1628568255.80	62041732.30	1504484791.20	1566526523.50	1628568255.80	1690609988.10	1752651720.40

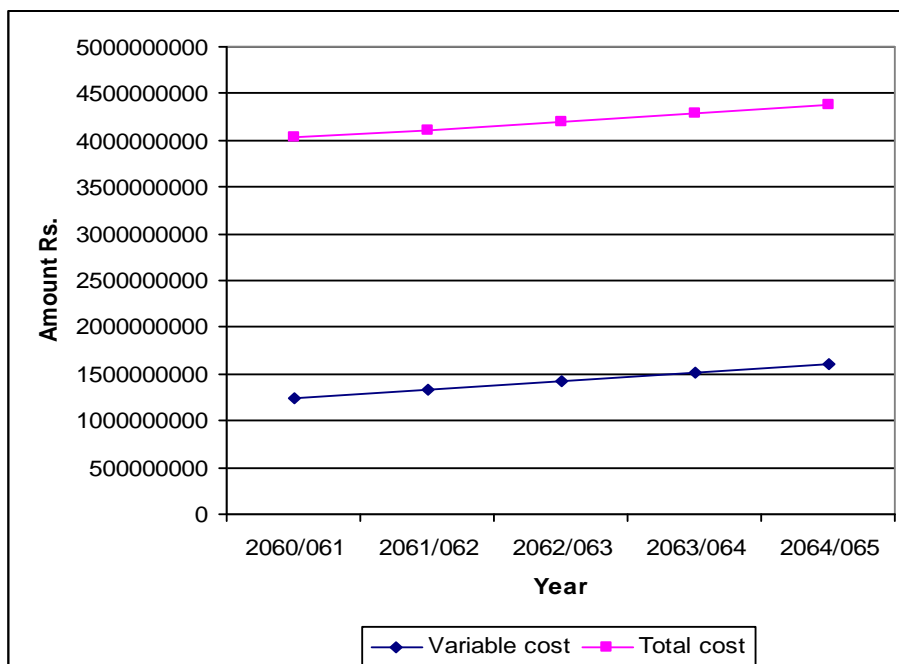
Sources: Annual Report of DDC

Figure 4.4
Trend line of Fixed Cost and Total Cost



It is observed that the slope of the trend line for fixed cost was positive because fixed cost was increasing slowly year by year, due to increasing repair and maintenance of machinery, purchase of some fixed assets. Total cost was also in positive trend because the total cost were formed with variable cost and fixed cost.

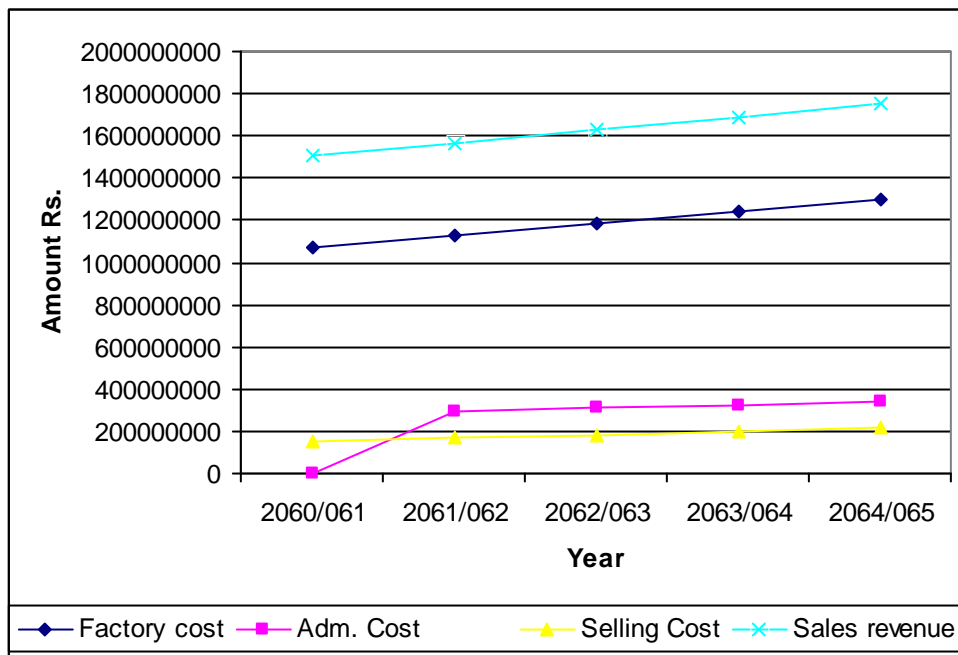
Figure 4.5
Trend of Total cost and Variable cost



It is observed that the slope of the trend line for variable cost was positive because variable cost was increasing slowly year by year, high price of the raw material is the main cause of increase in variable cost. Thus, the trend line of fixed cost and variable cost were positive so total cost of the slope line was also positive because of total cost = fixed cost + variable cost.

Figure 4.6

Trend of Net Sales, Factory overhead, Administrative overhead and selling and distribution overhead



It is observed that factory overhead were slowly increasing in trend line due to high cost of raw material, selling and distribution expenses are also increasing slowly due to publicity, advertising and sales promotion. So, increasing proportion of sales and selling and distribution were excellent but administration expenses shows highly increasing in trend line due to over staffing, channel of administrative division working style is very weak and delay and red tapism in work. It means expenses were unfavorable condition of DDC. The diagram only shows slight change of net sales. It means DDC administrative expenses were high or increasing year by year greater than sales revenue, so DDC is going on loss day by day.

4.5 Correlation Analysis

Correlation is a statistical tools technique which measures and analysis the degree or extent to which two or more variables fluctuate with reference to one another of DDC correlation thus, denotes the inter-dependence amongst variables. The degrees are expresses by a coefficient which ranges, between -1 and +1. The direction of change is indicated by + or – signs. The former, refers to the sympathetic movement in the same direction and the latter, in opposite direction, an absence of correlation is indicated by zero. Correlation thus expresses the relationship through a relative measure of change of DDC and it has nothing to do with the units in which the variables are expressed.

Table 4.12
Correlation Analysis

Variables	Value of r
Fixed cost and total cost	0.99
Variable cost and total cost	0.99
Net sales and total cost	0.99

Sources: Annual Report of DDC

There was high degree of positive correlation between total cost and fixed cost. If total cost was increasing, fixed cost was also increasing or total cost was decreasing, fixed cost was also decreasing. The correlation between total cost and fixed cost of DDC were 0.99 in study period. So, DDC must be tried to reduce total cost by applying modern technology like as replacing old machine by advance new technology machine and also try to reduce maintenance cost of machinery.

There was also high degree of positive correlation between total cost and variable cost. If total cost was increasing, variable cost was also increasing or total cost was decreasing, variable cost was also decreasing. The correlation between total cost and variable cost of DDC were 0.99 in study period.

Sales and total cost were highly correlated. The correlation between sales and total cost were 0.99 in study period. If sales were increasing, total cost was also increasing. So, corporation must be tried to increase sales by doing advertisement,

sales promotion, and product differentiation and so on. But these costs must be lower than proportion of sales increasing.

4.6 Major Findings of Study

From the analysis of the collected data following are the major findings:

1. Sales for the study period FY 2060/061 to 2064/065 are Rs.1535.81 million, Rs.1589.86 million, Rs.1536.34 million, Rs.1680.35 million and Rs.1800 million respectively.
2. Variable cost for the study period FY 2060/061 to 2064/065 are Rs.1287.25 million, Rs.1397.20 million, Rs.1308.79 million, Rs.1448.74 million and Rs.1621.89 million respectively.
3. Fixed cost for the study period FY 2060/061 to 2064/065 are Rs.222.11 million, Rs.234.99 million, Rs.272.74 million, Rs.279.84 million and Rs.282.32 million respectively.
4. Contribution margin for the study period FY 2060/061 to 2064/065 are Rs.248.56 million, Rs.192.46 million, Rs.227.55 million, Rs.236.61 million and Rs.178.11 million respectively.
5. P/V ratio for the study period FY 2060/061 to 2064/065 are 16.81%, 12.11%, 14.81%, 13.78% and 9.89% respectively.
6. B.E.P sales in study period FY 2060/061 to 2064/065 are Rs.1372.38 million, Rs.1940.94 million, Rs.1841.45 million, Rs.2030.26 million and Rs.2853.16 million respectively.
7. MoS in study period FY 2060/061 to FY 2064/065 are Rs.163.43 million, Rs.(351.285) million, Rs.(305.107) million, Rs.(349.913) million and Rs.(1053.16) million respectively.

8. No. of absenteeism in a month for study period FY 2060/061 to FY 2064/065 are 4, 4, 4, 3.5 and 4 respectively.
9. Labour turnover ration in study period FY 2060/061 to 2064/065 are 0.99, 0.50, 0.70, 0.60 and 0.20 respectively.
10. Material cost variance in study period FY 2060/061 to 2064/065 are Rs.32643.80F, Rs.19945.50U, Rs.95858.90U, Rs.445270U and Rs.484622U respectively.
11. Material price variance in study period FY 2060/061 to 2064/065 are Rs.515103.80F, Rs.1141520.50U, Rs.1372112.91U, Rs.536840U and Rs.2025560U respectively.
12. Material usage variance in study period FY 2060/061 to 2064/065 are Rs.482176.20U, Rs.1122894.50F, Rs.1278381.09F, Rs.982626.90F and Rs.1543873.12 F respectively.
13. No. of employee in DDC during the study period FY 2060/061 to FY 2064/065 were 1010, 1005, 998, 992 and 990 respectively.
14. No. of decreasing staff during the study period FY 2061/062 to 2064/065 were 5, 7, 6 and 2 respectively.
15. Total salary distributed to the employee of the DDC during the study period FY 2060/061 to 2064/065 were Rs.56080104, Rs.56862105, Rs.84195107, Rs.78939552 and Rs.80048499 respectively.
16. Difference percentage in salary distribution of study period FY 2061/062 to 2064/065 were 1.39%, 48.07%, (6.24)% and 1.40% respectively.
17. Factory overhead during the study period FY 2060/061 to 2064/065 were Rs.1082555567, Rs.115891797, Rs.1142929724, Rs.1203151396 and Rs.1338512109 respectively.

18. Difference percentage in factory overhead during the study period FY 2061/062 to 2064/065 were 7.05%,(1.38)%, 5.27% and 11.25% respectively.
19. Administrative overhead during the study period FY 2060/061 to FY 2064/065 were Rs.285771929, Rs.293744750, Rs.300795094, Rs.330251042 and Rs.344821094 respectively.
20. Difference percentage in administrative overhead during the study period FY 2061/062 to 2064/065 were 2.79%, 2.40%, 9.79% and 4.41% respectively.
21. Selling overhead during the study period FY 2060/061 to FY 2064/065 were Rs.141048361, Rs.179526745, Rs.187354371, Rs.195196747 and Rs.220885547 respectively.
22. Difference percentage in selling overhead during the study period FY 2061/062 to 2064/065 were 27.78%,4.36%, 4.19% and 13.16% respectively
23. Correlation between fixed cost and total cost were 0.99, correlation between variable cost and total cost were 0.99 and correlation between net sales and total cost were 0.99.

CHAPTER- V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

The researcher has identified that research problem and set objectives to solve research problems about cost control mechanism of DDC. To make this study more effective, related literature has been reviewed, the review of literature provide the foundation of knowledge in order to under take this research more precisely.

Research methodology has been described in third chapter which is the way to solve the research problems with the help of various tools and techniques, this chapter include the various financial as well as statistical tools to analyze the data in order to come to the decision. This chapter includes the research design, population and sample data collection procedure, data period covered and methods of analysis. These study is mainly conducted on the basis of secondary data collected from annual reports of DDC, official report, concerned person and authorize website of DDC.

The presentation and analysis of data has been made comparatively descriptive and their interpretation has done in chapter four by applying the wide varieties of methodology as stated in chapter three. It includes the various financial and statistical tools. In case of financial tools various cost item has been analysis with the help of financial report , various statistical tools such as trend analysis and correlation analysis has been applied to fulfill the objectives of this study. The analysis has been done mainly through secondary data. The major findings of the study are also included in the final section of the presentation and analysis chapter.

The government perception of role in public welfare has produced public enterprises engaged in public utility and necessities such as drug, cement, paper etc. In present context, public enterprises provides such goods and services which are provided by private enterprises more efficiently public enterprises face two types of challenges the first one is to meet public responsibility of providing quality goods and services at cheap rate and the second one is to utilized score resources more efficiently. In this context this study is concerned to appraise DDC and examine that in what extent the factory is applying cost control as to minimize its cost, that ultimately affect the price on the finished product.

This study covers a period of five years starting FY 2060/061 to FY 2064/065. This is the most latest study and covers information of relatively more years to analyze the cost control of DDC. The main sources of data are secondary data which consist of mostly the annual reports. It comprises balance sheet and profit and loss account, besides this information will also be supplemented from published and unpublished reports and bulletins of the company.

This study applied various cost control tools in the process of the study. They are cost volume profit analysis, labour cost control and standard costing. A part from these tools simple statistical tools like average, percentage were also use where ever they were needed.

5.2 Conclusion

From the above analysis of the facts and figures revealed by different cost control tools following conclusion have drawn about cost control of DDC.

- i) The cost volume profit analysis has indicated that contribution margin of DDC is not sufficient to meet all its fixed costs. The factory's break even sales during the study period always exceeded the actual sales volume. It is absorbed that the company has not sufficient margin of safety, which was loss figure. The proportion of variable cost, contribution margin were not able to meet increasing fixed costs. In the DDC observing the data, loss was occurring year by year but sales figure was fluctuating trend. It means decreased sales over total cost did not bring profit but invite losses.
- ii) Overtime, idle time and absenteeism are find most responsible for labour cost increasing.
- iii) Labour turnover is fluctuating trend and efficient workers are also going out from factory by avoidable cause.
- iv) Material cost also plays a vital role in the total cost structures. So material price and cost variance were not favorable in study period because, those required materials are very costly.
- v) Trend of production is not favorable and it goes on fluctuating trend due to machine break down, lack of proper supervision.

- vi) Overhead costs are increasing per year which is also most responsible for incurring losses.
- vii) DDC was running in loss during study period due to high production cost, high selling and distribution cost, excess labour cost and material cost.
- viii) Correlation analysis has showed that the relation between the selected variables are highly correlated

5.3 Recommendation

There is a need of economic production and that can be obtained through planning and policy of the factory. Some recommendation be given as below.

- i) The cost volume profit analysis relationship in DDC was not favorable because sales were not increasing as per the increase in the cost. In order to make profit, the company should match their sales over cost and make profit plan with their sales and costs.
- ii) Labour cost constitute a high percentage of the total cost to produce the product. It should always be remembered that labour is one of the factor of the production which is capable of increasing its productivity. In other case physical set of limitation limits to the output that can be obtained from given quantity of input. So overtime, idle time and absenteeism take high role of increasing in cost of production. Thus management should take corrective action for idle time, make some rules and regulation for absenteeism, repair and maintenance of old machinery which cannot operate efficiency and replacement of old machinery by new advance technology types of machine to avoid overtime.
- iii) A suitable personnel policy should be framed of employing the right man for the right job and giving a fair equal treatment to all workers to reduce the labour turnover. Men- Management relationship should be improved by encouraging labour participation in management also help to reduce labour turnover of DDC.
- iv) Material takes a high portion of the total cost of production and this means that efficiency as regard material is a vital factor in the total cost of production and in the profit earned. Any amount saving from material will be directly reflected in profits, it is therefore, necessary that at most care

should be devoted to the purchase and use of materials. The factory should try to buy material at low cost.

- v) DDC profit position was not favorable. It was going on loss during study period, but due to high cost of goods sold, high selling and administration cost. The factory did not follow cost control measures. Thus DDC should launch a long term programme to cut down excessive cost and to reduce wastage. Hence the measure and techniques such as economic order quantity, inventory control, performance standards, budgetary cost controlling, standard costing are suggested to be followed which will perhaps improve the cost efficiency and cost responsibility center should be clearly defined and pointed out.
- vi) DDC has maintained costing system refers to the establishment of cost standards and their application to problems of management, particularly those problems relating to product cost and departmental cost control. For any given cost unit, standards are set for materials, wages, direct expenses, variable overhead, fixed overhead, selling and distribution expenses, selling price and profit and labor for cost. Budget and standard costing tools provide the effective idea for cost control procedure and so the factory is suggested to adopt the standard costing system for cost control.
- vii) The frequent change of top level management has also affected the smooth functioning of management. It creates unstable environment. So the post G.M. should be professionalism and should be far from political interference.

In addition to above mentioned recommendations some important advise are also given for improvement of DDC.

DDC has no separate costing department will the section, should with the responsibility of categorizing the actual cost into direct and indirect, fixed and variable, controllable and joint cost should be separated on product wise basis.

The programme should be completed by adopting definite and suitable pricing policies regarding price fixation side by side.

Power should not be centralized i.e. authority should be delegated top to bottom level for freedom in the work. Reward and punishment policy should adopted fairly to

motivate the discourage them promotion and transfer should be evaluated with their performance in the factory other than political favoritism political appointment of staff should be discouraged. Attention should be paid to reduce overstaffing because it raises unnecessary operation expenses.