CHAPTER I
INTRODUCTION

1.1 General Background

Profit planning is the process of developing a plan of operation that makes it possible to determine how to arrange the operational budget so that the maximum amount of profit can be generated. There are several common uses for profit planning, with many of them focusing on the wise use of available resources. Along with the many benefits of this type of planning process, there are also a few limitations (Welsch, 1996).

The actual process of profit planning involves looking at several key factors relevant to operational expenses. Putting together effective profit plans or budgets requires looking closely at such expenses as labor, raw materials, facilities maintenance and upkeep, and the cost of sales and marketing efforts. By looking closely at each of these areas, it is possible to determine what is required to perform the tasks efficiently, generate the most units for sale, and thus increase the chances of earning decent profits during the period under consideration. Understanding the costs related to production and sales generation also makes it possible to assess current market conditions and design a price model that allows the products to be competitive in the marketplace, but still earn an equitable amount of profit on each unit sold (Goyal, 2000).

While profit planning is a useful process in any business setting, there are some limitations on what can be accomplished. The effectiveness of the planning is only as good as the data that is assembled for use in the process. Should the data be incorrect or incomplete, the results of the planning are highly unlikely to produce the desired results. In addition, if the findings of the process do not result in the implementation of procedures and changes in the relevant areas of the business, the time spent on the profit planning is essentially wasted. For this reason, profit

planning should be seen as a starting point for operations and not simply recommendations of what should be done in order to increase profit margins.

A business must earn enough to pay for all costs and still keep itself in an adequate state of liquidity. Besides, it must make additional investment to grow and prosper. A sound and developing organization is favored by financial institutions in the capital market. Profit is an essential cost of any business activity. It must be planned and managed just like other costs of doing business Profit is a condition of survival. It is the cost of the future, the cost of staying in business.

Profit is not necessarily in direct proportion to production volume and machine loading. Activity and productivity, whether it be people or equipment, are two entirely different elements. In business the most fundamental measure of productivity is profit contribution. Most production records will tell management how well a piece of equipment operates, but not its contribution to overall productivity. Ideally, when we compare contribution margin to production volume, the most profitable products should be consuming the most production volume. Similarly, if we divide customers into high/medium/low profitability, then the most profitable customers should be consuming the most organizational resources. Sales efforts and incentives should also be devoted to the highest profit product lines and marketplaces, and so on. Many companies don't have is the ability to collect, interpret and use this information in a topical or meaningful manner.

Process of developing a profit plan that outlines the planned sales revenues and expenses and the net income or loss for a time period. Profit planning requires preparation of a master (Comprehensive) budget and various analyses for risk and what-if scenarios. Tools for profit planning include the Cost-Volume-Profit (CVP) Analysis and budgeting.

Most of this information is only available to management in summary form through the period reports produced by their accounting system. This information while necessary for other reasons is at best ancient history and often is not relevant in making day to day manufacturing, estimating and pricing decisions. Management must be diligent in interpreting these known facts and using them for the creation of maximum profit.

Profit planning can be defined as the set of steps that are taken by firms to achieve the desired level of profit. Planning is accomplished through the preparation of a number of budgets, which, when brought through, from an integrated business plan known as master budget. The master budget is an essential management tool that communicates management's plan throughout the organization, allocates resources, and coordinates activities.

A budget is a detailed plan for acquiring and using financial and other resources over a specified period of time. It represents a plan for the future expressed in formal quantitative terms. The act of preparing a budget is called budgeting. The use of budgeting to control a firm's activities is called budgetary control.
Master budget is a summary of a company's plan that sets specific targets for sales, production, distribution, and financing activities. It generally culminates in cash budget, a budgeted income statement, and a budgeted balance sheet. In short, it represents a comprehensive expression of management's plans for the future and how these plans are to be accomplished.

The concept of responsibility accounting is very important in profit planning. The basic idea behind responsibility accounting is that a manager should be responsible for those items that the managers can actually control to a significant extent. Each line item (i.e., revenue or cost) in the budget is made the responsibility of a manager, and that manager is held responsible for subsequent deviations between budgeted goals and actual results. Someone must be held

responsible for each cost or else no one will be responsible, and the cost will inevitably grow out of control.

Being held responsible for costs does not mean that the manager is penalized if the actual results do not measure up to the budgeted goals. However, the manager should take the initiative to correct any unfavorable discrepancies, should understand the source of significant favorable or unfavorable discrepancies, and should be prepared to explain the reasons for discrepancies to higher management. The point of an effective responsibility system is to make sure that nothing "falls through the cracks" that the organization reacts quickly and appropriately to deviations from its plans, and that the organization learns from the feedback it gets by comparing budgeted goals to actual results. The point is not to penalize individuals for missing targets (Laurie, 1994).

1.2 Statement of the Problem

Economic prosperity depends upon a sustainable economic development. For this attainment of accelerated economic development in the country, industrialization is as important as that of agriculture and other primary sectors. Industrialization, in the process of value added contribution, creates new employment opportunities and economic integration. As long as this sector can not be expanded on a promotional basis, proper development of economy is not possible. However, owing of constraints in the supply of raw material, basic infrastructure and low purchasing power of people, underdeveloped capital market and lack of technological advancement and so on, industrialization has far been of laggard phenomenon and has been able to make the desire head way.

Profit planning itself is a tool which can handle organization’s present profit situation smoothly. Incase of DDC profit planning and control tools and techniques may guide to create profit. DDC is a leading diary with government subsidy and lots of heavy resources. DDC has no lack of market for its any

product. DDC itself is an established logo which is making DDC a market leader in every aspect of dairy product. However it is suffered by losses. Although low resourceful, small competitor is generating the profits which is run under private management and growth rate is many times higher than DDC. So, this study mainly focuses on the following research problems.

- What are the budget target and its achievement along with the reason of deviation, if any ?
- What is the trend of expenses & cost variability ?
- What is the profitability position of DDC ?
- What is the relationship between Cost, Volume and Profit as a managerial tool of profit planning ?

1.3 Objectives of the Study

The main objectives of the study are as follow:

1. To analyze the budget target and its actual achievement along with the reason of deviation.
2. To analyze the trend of expenses & cost variability.
3. To explore the profitability position of DDC.
4. To identify the relationship between Cost, Volume and Profit as a managerial tool of profit planning.

1.4 Significance of the Study

In the recent days the nation is facing with lots of hurdles, in this situation the public enterprises sector are also running slowly. This study was helpful to the DDC to overview their profit planning and to formulate future strategies to do much better researcher their horizon. Not only in DDC, were these studies also being beneficial to other public enterprises situated in Nepal.

Further the concerned scholars, academicians, investors. Professional may also be benefited from this study. This study will also help to inform the decision makers about the importance of profit planning analysis on their further success.

1.5 Limitations of the Study

Maximum efforts will be given for not deviating from the facts and truth while presenting and analyzing the information. But certain limitations existed which will be difficult to eliminate.

Following are its limitations of this study;

1. The proposed study is based on the data covering only for five fiscal years from 2005/06 to 2009/10. Because such years are taken after the peace process was started.
2. Basically the study is based on secondary data but for the primary data general discussions with the management was also done.
3. This study is applied only some statistical tools like mean, co-relation, regression, and standard deviation for the evaluation of the data.

1.6 Organizational of the Study

The study has organized into five chapters which are as follows:

In the first chapter of the study background of the study, focus of the study, statement of the problems, objectives of the study, significance of the study are included.

In the second chapter of the study, it included review of related different studies, theoretical analysis, and also try to explain how this present study is different from previous studies.

In the third chapter of the study, this chapter deals with the research methodology, research design, population and sample, source of data, techniques of data collection, methods of analysis and presentations.

In the fourth chapter of the study, included the primary data and secondary data presentation, data analysis interpretation, and major finding.

In the fifth chapter of the study, included the summaries and conclusion of the whole study and recommendations. The exhibits and bibliography are incorporated at the end of the study.

CHAPTER II
REVIEW OF LITERATURE

This chapter is focused on brief discussion about the abstract regarding the theories of profit planning and control. In order to accomplish the objective of the study, the chapter includes reviews literature on profit planning and control, its theoretical framework etc. including different views of expertise, assumptions, book and journals, as well as major findings of previous dissertations of the relevant study is included in precise manner.

2.1 Conceptual Framework

Profit planning and control is an important approach, mainly in profit –oriented enterprises. Profit planning is merely a tool of management. It is not an end of management or substitute of management. It facilitates the managers to accomplish managerial goals in systematic way.

The management will be efficient if it is able to accomplish the objective of the enterprise. It is effective, when it accomplishes the objectives with minimum effort and cost. In order to attain long-rang efficiency and effectiveness, management must chart out its course of action in advance. A systematic approach that facilitates effective management performance is profit planning and control, or budgeting. Budgeting is therefore integral part of management. In a way, a budgetary control system has been described as a historical combination of a goal-setting machine for increasing an enterprises profit, and goal–achieving, machine for facilitating organizational co-ordination and planning while achieving the budgeted targets. (Lynch & Williamson, 1992)

Profit is the ultimate goal of every business house. They involve in business for making profit. Profit can not be achieved easily. It should be managed well with better managerial skills. So profit is the planned and controlled output of management. By element, profit is the difference of revenue and cost. Profit plan,

thus refers to the planning of revenue (i.e. increase the revenues), and planning of cost (i.e. increase the efficiency of cost).

Comprehensive profit planning and control is a new term in the literature of business. Though it is new term, it is new concept in management. The other terms, which can be used in same context, are comprehensive budgeting, managerial budgeting, and simply budgeting. The profit planning and control can be defined as process/technique, of management that enhances the efficiency of the management. (Lynch & Williamson, 1992)

Similarly Lynch and Willamson has defined profit planning and control as the concept of a comprehensive budget cover its use in planning, organizing and controlling all the financial and operating activities of the firm in the forth coming period according to.

2.1.1 Role of Profit Planning and Control

An effective budgeting system is vital to the success and survival of a business firm. Without a fully coordinated budgeting system, management cannot know the direction the business is taking out. Organizations that do not plan are likely to wonder aimlessly succumb to the swirl of current events. Other benefits of budgeting or profit planning and control are (Goyal, 2000):

- Basic policies developed as the pre-requisites of profit planning and control show direction to the business.
- It provides definite goals and objective that serve as benchmarks for evaluating subsequent performance.
- It compels and motivates management to make an early and timely study

2.1.2 The Basic Elements of PPC

The basic elements of PPC are as follows:

1. Comprehensive and co-ordinate plan: PPC is the plan for future expectation of firm's budget for all departments. It is prepared after co-coordinating

them for various segments of the enterprise. That budget is known as comprehensive budget for profit planning.

2. Expressed in financial terms: PPC is always quantified in financial terms. Initially budgets must be developed in terms of various quantities, but finally they must be expressed in the monetary units i.e. Rupee, Dollars, Pounds etc.
3. Plan for operational resources and expenses: PPC is a mechanism to plan for the firm's operations or activities. The two aspects of every operation are revenue and expenses. The PPC must plan for revenues and expenses related to a specific operation. The planning for resource will include planning for assets and source of funds.
4. Long term future plan: PPC should be meaningful only when it related to a specified period of time. The budget estimates will be relevant only for some specific period (Welsch, 2000).

2.1.3 How Profit Planning is Used?

The profit plan is used in the following ways:

1. Evaluating operations**:** Each time actual sales and costs contained in income statement are compared with those projected in original profit plan. This permits detection of areas of unsatisfactory performance so that corrective action can be taken.
2. Determining the need for additional resources such as facilities or personnel**:** For example, the profit plan may show that a sharp increase in expected sales will overload the company's billing personnel. A decision can then be made to add additional invoicing personnel, to retain an EDP service, or to pursue some other alternative.
3. Planning purchasing requirements**:** The volume of expected sales may be more than the business' usual suppliers can handle or expected sales may be sufficient to permit taking advantage of quantity discounts. In either case,

advance knowledge of purchasing requirements will permit taking advantage of cost savings and ensure that purchased goods are readily available when needed.

Anticipating any additional financing needs**:** With planning, the search for needed funds can begin as early as possible. In this way, financial crises are avoided and financing can be arranged on more favourable terms (Jain & Narang, 2000).

Profit planning is setting a profit target for the coming period. It is like a summarized version of estimated income statement. It starts with a forecast of expected sales and desired percentage for gross profit keeping in view the market conditions.

In a nutshell, profit planning is a set of steps taken to achieve a desired level of profit. To accomplish this, a number of budgets are prepared. Which taken together make a business plan.

Sales and profit planning enables the planning of sales and the revenue resulting from this on different aggregation levels. In addition, taking account of the cost of sales, the resulting contribution margins can be determined. Finally - together with the overhead costs the planned operating profit can also be determined.

The initial position is that the actual values from the current year should be used as a template for planning in the following years. The default values gained from copying the actual data can be adjusted to the expectations by a revaluation in the market segments for individual key figures.

Since the sales and profit planning takes place in different stages (strategic planning by top management, improvement by middle management, operational planning by individual key account managers), and the planned results should be comparable with each other at the different stages, the planned data is stored in different versions. Plan data is copied between these versions, and distributed from a higher aggregation level to a lower (top-down distribution) or inversely (bottom-up).

The valuation of planned sales (quantities) typically takes place on the basis of prices from the current year, which can be adjusted correspondingly to the expectations for the planning period. The adjustment should be carried out by the people responsible, this means the product costs should be planned by the purchasing manager, and the sales prices by the sales manager. In addition to values per unit of measure (price/unit), percentages of absolute values (sales discounts, and returns as a percentage of revenue) are also measures, which are used for planning.

This way, the adjustments of quantities, and prices, or percentages are the measures, which control the overall result in profit planning. The prices are stored in the corresponding aggregation level, production prices in dependency on the product group, sales discounts and returns in dependency on the product group and customer group. The comparison of planning on the different hierarchy levels discloses whether a further iteration of the planning process is necessary or not (www.wikipedia.com).

2.1.4 Profit Planning

Profit planning is, therefore of fundamental part of the overall management functions and is vital part of the total budgeting process. The management determine the profit goals and prepares budgets that will led them to the realization of these goals. Profit planning can be done only when the management has the information about the cost of the products both fixed and variables and the selling price it will be in a position to sell the products of the company (Maheshwori, 2000).

Profit planning is planning for future operation in such a way is to maximise the profit or to maintain a specific label of profit. A comprehensive profit planning is also known as broad budgeting schedule develop in financial statement. Profit planning deal with the development of objectives, specification of short-term goal and development of strategy and tactical profit plan. In other words profit plan is a detail expression of the expected result from the planning decisions. Profit

planning is an important approach on developed to facilitate for effective performance of management process like as planning, organizing, staffing, controlling etc. Therefore, profit planning carryout the responsibility of forward thinking about the future operation of the organization. Since the precise measurement of operation is in terms of quantity (i.e. the matter of the profit planning are expressed in numerical value).

2.1.5 Profit Planning Process

Profit is not just happened but it is planned. The major process of profit planning are as follows (Welsch, 1996):

- Identification and evaluation of external relevant variables.
- Development (or revise) of the broad objective of the business/enterprise.
- Development of specific goal for the business/enterprises.
- Development and evaluation of business/enterprises strategies.
- Specification executive management planning instructions.
- Preparation and evaluation of project plans.
- Development and approval of strategic and tactical profit plan.
- Implementation of profit plans.

As controlling function of management, prepare monthly performance reports by responsibility and follow up by provide feedback, take, corrective action, re-plan etc.

2.1.6 Component of Profit Planning and control

Profit Planning and control is a systematic and formalized approach for accomplishing the planning, coordination and control responsibilities of management. Components of PPC are bones of a business/an enterprise, which help it operate properly, efficiently and effectively. The components of PPC are as follows (Welsch, 2000)

1. The substantive Plan:-

- Broad objectives, Missions and short term goals of the enterprise.

- Specified enterprise goals, structure/responsibilities, authority.
- Enterprise polices and strategies.
- Instructions and communication of executive management planning.

2. **The financial Plan:-**

   a. Strategic long-range profit plan:

   - Sales, cost and profit projections.
   - Major projects and capital additions.
   - Cash flow and financing.
   - Personnel requirements.

   b. Tactical short-range profit plan:-

   - **Operating plan:-** It includes planned income statements, Sales plan, production for merchandise purchase plan, administrative expenses budget and appropriation type budget.
   - **Financial position Plan:-** It includes planned balance sheet(i.e. assets, liabilities, owner's equity)
   - **Cash- flow plan.**

3. **Variable expenses budgets** (i.e. output-expenses formula)
4. **Supplementary data**(i.e. CVP analysis, ratio analysis)
5. **Performance reports.**
6. **Follow –up, corrective action and preplanning reports.**

2.1.7 Major tools use in profit planning and Control

Profit planning and control represents on overall plan of operation which covers a definite period and formulates of planning decision of managements. It consist of three main budgets, which are (Grrison, 1985):

1. Operating Budget:-

The operating budget covers revenue and expenses. In other words, operating budget relates to the physical activities or operations of a firm such as sales,

production, purchase, labour and other different expenses budgets. In specific term an operating budget has the following term.

i) Sales Budget: A sales budget is a detail schedule of expected sales for coming period which is usually expressed in both amount and unit. Once the sales budget has been set, a decision can be made on the level of production that will be need to support sales and the production budget can be set well. The sales budget is constructed by multiplying the expected sales in units by the sales price.

Sales budget is prepared from sale forecast where as a sales forecast encompass potential sales for the entire industry as well as potential sales for the firm preparing the forecast. Sales results from prior years are used as starting point in preparing a sales forecast. (Welsch, Hilton and Gordon,1992)

ii) Production Budget:- After the sales budget has been prepared, the production requirements for the forth coming budget period can be determined and organized in the firm of a production budget sufficient goods will have to be available to meet sales need and provides for the desire ending inventory. A portion of these goods will already exist in the form of begging inventory. The reminder will have to be produce. Thus, production need can be determined by adding budgeted sales units to desire ending inventory and deducting the begging inventory from the total. (Horngreen, Foster and Datar, 1999)

iii) Purchase Budget :- In case of Merchandising firm, instead of preparing production budget , it would prepared a merchandise purchase budget showing the amount of goods to be purchased from its suppliers during the period. The Merchandise purchased budget is in the same basic formate as the production budget except that it shows goods to be purchased rather than goods to be produced.

iv) Direct Material Budget:- After the production need have been computed, a direct material budget should be prepared to show the materials that will be required in the production process. Sufficient raw material will have to be available to meet production needs and to provide for the desire ending raw material inventory for the budget period part of this raw materials requirements will already exist in the firm of a begging raw material inventory. The reminder will have to be purchased from supplier.

v) Direct labour Budget:- The direct labour budget is also develop from the production budget. Direct labour requirements must be computed so that the company will know whether sufficient labour time is available to meet production need. Just knowing in advance, the company can develop plan to adjust the labour force as the situation may require. Direct labour requirement can be computed multiplying product to be produced by each period by the number of direct labor ours required to produce a single unit. Many different types of labour may be involved. If so, then computation should be by type of labour needed. The hours of direct labour time resulting from these computations can then be multiplied by the direct labour cost per hour to obtain budgeted total direct labour cost.

vi) Manufacturing Overhead Budget:- The manufacturing overhead budget provide a schedule of all costs of production other than direct material and direct labour. These costs should be broken down by cost behavior for budgeting purposes and a predetermined overhead rate developed. This rate will be used to apply manufacturing overhead to units pf product throughout the budget period.

vii) Selling and Administrative Overhead Budget:- The selling and administrative expenses overhead budget contains a listing of anticipated expenses for the budget period that will be incurres in areas other than manufacturing the budget will be made up of many. Smaller, individual

budgets submitted by various persons having responsibility for cost control in selling and administrative matters. If the number of expenses item is very large, separate budgets may be needed for the selling and administrative functions.

2) Financial Budget:-

Financial budgets are concerned with expected cash receipts/ disbursements financial position and result of operations. The components of financial budget are (Garrison, 1985):

i) **Budgeted Income Statement:-** The budgeted income statements is one of the key schedules in the budget process. It is the document that tells how profitable operations are anticipated to be in the forth coming period. After it has been prepared, It stands as a bench mark against which subsequent company performance can be measured.

ii) **Cash Budget: -** Cash budget is the detail showing cash receipt, cash disbursement and the balance cash. The cash budget is composed of four major sections: The receipt section, the disbursement section, the cash excess or deficiency section and the financing section. The receipt section consists of the opening balance of cash added to whatever is expected in the way of cash receipt during the budget period. The disbursement section consists of cash payment that is planned for the budget period. The cash excess or deficiency section consist of the difference between the cash receipt section total and the cash disbursement section total. The financing sections provide a detail account of the borrowing and repayments projected to take place during the budget period. It is also includes a detail interest payment that will due on money borrowed.

iii) **Budgeted Balance Sheet: -** Budgeted balance sheet is a statement of asserts and liabilities prepared after the preparation of operating budgets and financial budgets. It is based on functional or operating budget, cash

budget, projected income statements and the previous year asserts and liabilities. In other words, budgeted balance sheet developed by beginning with the current balance sheet and adjusting it for the data contained in the other budgets.

3) Appropriation Budget

The appropriation budget covers all types of expenditure on advertising and research sectors. A part from above budgets PPC also has relationship with following additional budgets, CVP analysis, and completion of profit plan and performance reports (Garrison, 1985).

- **Flexible Budgets**

  Flexible expenses budget relates only to expenses or cost. They are also called dynamic, activity or output adjusted expenses budgets. The concept of flexible expenses budget is that all expenses or incurred because of passes of time, output, activity or combination of time and output or activity. Therefore it is complementary to tactical profit plan which helps to provide an expenses plan. They should be adjusted to actual output for comparison with actual expenses in periodic performance report. Expenses or cost must be identified into fixed and variable expenses or cost in flexible budget.

- **Capital Expenditure Budget**

  Capital expenditure budgeting is a process of planning and controlling of the long term and short term expenditure for expansion, replacement and contraction of fixed asserts. Capital budgeting is useful to earn future profit and reduce future costs. The major elements of a capital expenditure budget are cash out-flow and cash inflows. Cash out-flow includes the cost of the project as cash out lays at deferent times during the life of a project. The cash out- flows are effected by the provision of residual value of old equipment, tax position, addition working capital needed etc. Cash in flows

are expected cash revenue during the life of a project. non cash expenses like deprecation and tax position can affect the cash in flows.

- **Zero Based Budgeting**

  Zero based budgeting is the method of budgeting in which manager are required to started zero budget levels every year and to justify all cost as if the programes involved were being initiated for the first time. No cost are viewed as being on going in nature the manager must start at the ground level each year and present justification for all cost in the purposed budget regardless of the type of cost involved. Zero based budgeting differs from traditional budgeting in which budgets are generally initiated on an incremental bases, the manager start with last years budgets and simply adds to it according to anticipated needs. The manager does not have to start at the ground each year and justify on going costs for existing programs.

- **Activity Based Budgeting**

  Activity based costing can lead to improved decision making which principles extend budgeting. Activity based budgeting focuses on the lost of activity to produce and sell products and services. It separates indirect cost into separate homogeneous activity cost pools. Management uses the causes and effects criterion to identify to cost drivers for each of these indirect cost pools.

2.1.8 Advantages of Profit Planning

Profit planning offers many advantages to business. The modest investment in time required to develop and implement the plan will pay liberal dividends later. Among the benefits that your business can enjoy from profit planning are the following (Welsch, Hilton & Gordon, 2000):

- Performance evaluation**:** The profit plan provides a continuing standard against which sales performance and cost control can quickly be evaluated.

- Awareness of responsibilities: With the profit plan, personnel are readily aware of their responsibilities for meeting sales objectives, controlling costs, and the like.
- Cost consciousness: Since cost excesses can quickly be identified and planned, expenditures can be compared with budgets even before they are incurred, cost consciousness is increased, reducing unnecessary costs and overspending.
- Disciplined approach to problem-solving: The profit plan permits early detection of potential problems so that their nature and extent are known. With this information, alternate corrective actions can be more easily and accurately evaluated.
- Thinking about the future: Too often, small businesses neglect to plan ahead; thinking about where they are today, where they will be next year, or the year after. As a result, opportunities are overlooked and crises occur that could have been avoided. Development of the profit plan requires thinking about the future so that many problems can be avoided before they arise.
- Financial planning: The profit plan serves as a basis for financial planning. With the information developed from the profit plan, you can anticipate the need for increased investment in receivables, inventory, or facilities as well as any need for additional capital.
- Confidence of lenders and investors: A realistic profit plan, supported by a description of specific steps proposed to achieve sales and profit objectives, will inspire the confidence of potential lenders and investors. This confidence will not only influence their judgment of you as a business manager, but also the prospects of your business' success and its worthiness for a loan or an investment (Welsch, Hilton & Gordon, 2000)

2.1.9 Limitations of Profit Planning

Profit plans are based upon estimates. Inevitably, many conditions expected will change. Crystal balls are often cloudy. The further down the road one attempts to forecast, the cloudier they become. In a year, any number of factors can change, many of them beyond the control of the company. Customers' economic fortunes may decline, suppliers' prices may increase, or suppliers' inability to deliver may disrupt your plan.

The profit plan requires the support of all responsible par- ties. Sales quotas must be agreed upon with those responsible for meeting them. Expense budgets must be agreed upon with the people who must live with them. Without mutual agreement on objectives and budgets, they will quickly be ignored and serve no useful purpose.

Finally, profit plans must be changed from time to time to meet changing conditions. There is no point in trying to operate a business according to a plan that is no longer realistic because conditions have changed.

Despite the limitations of profit planning, the advantages far outweigh the disadvantages. A realistic plan, established yearly and re-evaluated as changing conditions require will provide performance guidelines that will help you control every aspect of your business with a minimum of analysis and digging for financial facts (Gupta, 2000).

1. To communicate expectation to all the concerned with the management of the firm so that they understand, support and implement.
2. To provide details plan of action for reducing uncertainty and for its proper direction of individual and group efforts to achieve goals.
3. To co-ordinate the activities and efforts in such a way that the use of resources is maximized.

4. To provide a means of measuring and controlling the performance of individuals and units and to supply information based on which the corrective action can be taken.

2.1.10 Profit

Profit is the primary measure of business success in any economy. If a firm cannot make profit, it cannot obtain or hold capital for very long period, it cannot secure and retain other resources, such as, materials, machines, manpower, etc. In other words, the more profitable enterprises are more attractive to the holders of the available capital they have the money to buy the other needed resources. The key here is that capital and other resources are scarce, they are allocated to the profit makers in roughly descending order of their profit potential. Our economy performs this allocation function through a relatively free and open market system.

Usually profit does not occur, profit is managed. Before making an intelligent approach to the managerial process of profit planning, it is important to understand the management concept of profit. There is after all several different interpretation of the term 'profit.' An economist will say that profit is the reward for entrepreneurship for risk taking. A labour leader might say that it is a measure of how efficiently labour has produced and that it provides a base for negotiating a wage increase. An investor will view it as a gauge of the return on his\her money. An internal revenue agent might regard it as a base for determining income taxes. The accountant will define it simply as the excess of firm's revenue over expenditure of producing revenue in a given fiscal period (Frengen, 1973).

2.1.11 Planning

Planning is the first essence of management and all other functions are performed within the framework of planning. Planning means deciding in advanced what is to be done in future. Planning starts from forecasting and predetermination of future events.

Planning is the process of developing enterprise objectives and selecting future courses of action to accomplish them Planning is one of the functions of the manager and as such, involves the section, from among alternatives of enterprise objectives, policies, procedures and programmes. It is thus decision making affecting the future course of an enterprise, planning describes what a manger intends to do (Flippo, 1995).

Planning is the basic foundation of profit planning and control. Planning means thinking and deciding in advance what is to be done in future. It is a method of thinking out acts and purposes beforehand planning starts with forecast and complete with determination of future event. It is the first essences of management and all the other functions performed within framework of planning.

Planning is the hard task since it involves the ability to think periodically, to analyze and to come to decide, to control the actions of its personnel and to cope with a complex dynamic fluid environment. They bridge the gap between what they are and where they want to go. This statement obviously shows planning is a complex and hard job, planning is a tool of developing and getting organizational objectives. Planning is the function of management. Planning is essential to accomplish goals. It reduces uncertainty and provides effective direction to the employees by determining the course of action in advance (Flippo, 1995).

2.1.12 Control

Control is the process of assuring efficient performance to attain the enterprise objectives. Control provides timely information that may prompt the revision of goals. The purpose of control is achieved with setting standards, comparing predicated and actual results against these standards and taking corrective action. Once planning is determined, it must be carried out under control. For this, managers compare actual performance against the planned performance and find out deviation taking remedial steps to remove those deviations. Control provides timely information that may prompt the revision of goals. The purpose of control

is achieved with setting standards, comparing predicated and actual results against these standards and taking correctives actions.

An important aspect of control that is frequently overlooked is its relationship to the point of action or at the time of forward. In other word, it is assumed that objectives, plans, policies and standard have been developed and communicated to those managers who have the related performance responsibility.
Business managers are continually involved in organizing, planning and controlling the operation of both large and small business organization. Profit planning is one of the most important management tools used to plan and control business operations. Budgets or the profit plans are financial plans prepared as a guide to and control future operations.

The descriptive term comprehensive profit planning and control can be used in the same context as: business budgeting, managerial budgeting and budgeting. The term comprehensive profit planning and control is defined as systematic and formalized approach for performing significant phases of management planning and control functions (Flippo, 1995).

2.2 Cost Volume Profit Analysis

CVP analysis applies the variable costing approach to analyze the built-in relationship between cost, volume and profit. It analyses the short term static relationship between cost, volume and profit it assumes that under constant underlying condition, CVP analysis-profit planning. This assumption of constant underlying conditions and the short term relationship however have been criticized by many authors.

The assumptions over emphasize the market sovereignty of producer (i.e. seller) rather than that of consumer. Therefore, to assume that seller has choice to sell as many as of his product in the market, at the given price fixed by him is neither true nor possible. Competitive market with a wide range of the substitute product in the

market has minimized the role of the seller and has over focused on the sovereignty of the customers. Though it has been criticized by the authors, CVP analysis is powerful tool in the hands of management for profit planning (Flippo, 1995).

It helps mangers understand the interrelationship between cost, volume and profit in an organization. Basically, CVP analysis involves finding the most favourable combination of variable costs, fixed costs, selling price, sales volume and mix of products sold. CVP analysis provides the manager with a powerful tool for identifying those courses of action that will and will no improve profitability.

Goyal (2000) defined Cost Volume Profit (CVP) analysis is supplementary tool of planning for profit. Cost-Volume-Profit analysis is immensely helpful for developing alternative strategies in sales planning and the cost estimation. A certain relationship exists between the variable like selling price, dales volume, expenses and taxes. Cost Volume Profit analysis is an accounting technique showing the relationship between theses variables. This technique is applicable in all economic sectors (manufacturing, wholesaling, retailing and service industries), because the same types of managerial functions are performed in each type of organization.

Flippo (1995) analyzed that Cost Volume Profit analysis is a systematic method of examining the relationship between changes in activity (i.e. output) and changes in total sales revenue, expenses and net profit as a model of theses relationship cost – volume - profit analysis simplifies the real world conditions that a firm will face. Like most models, which are abstractions from reality, CVP analysis is subject to a number of underlying assumptions and limitations, nevertheless, it is a powerful tool for decision-making in certain situations.

CVP analysis provides only on overview of the profit planning process. It provides management with a comprehensive overview of the effects on revenue & cost of all

kinds of short run financial changes. It is related to profit, sales volume & cost (Munakarmi, 2002)

According to Horngren, Datar and Foster (2003) Cost Volume Profit (CVP) analysis examines the behaviour of total revenues, total costs, and operating income as changes occur in the output level, the output level, the selling price, the variable cost per unit, and or the fixed cost of the product.

Management can get important information and can made analysis of business with the help of cost- volume- profit analysis and cost behaviour information. It is highly essential for the management to have the complete knowledge about the interrelationship among the cost, volume and profit. A study concerning this interconnection is undertaken through cost volume profit analysis. It can be regarded as a sophisticated method or analytical tool used in management. The use of this method helps in determining the different levels of products or sales of avoid losses, to earn desired profit and so on. CVP analysis provides the management with a comprehensive overview of the effects on revenue and costs of all kinds of short-run financial changes. It is related to profit, sales volume and costs.

Cost Volume Profit summarizes the effects of changes in the organization's volume of activity on its costs, revenue and profit. That is the technique explores the relationship which exists between costs, revenue, output level and resulting profit.

2.2.1 Assumption of CVP Analysis

It is essential that anyone preparing or interpreting CVP information should be aware of the underlying assumption on which the information has been prepared. If these assumptions are not recognized, serious errors may result and incorrect conclusions may be drawn from the analysis. They are as follows (Jain & Narayan, 1991):

1. All other variables remain constant:

It is assumed that all variables other than the particular one under consideration have remained constant throughout the analysis. In other words, it is assumed that volume is the only factor that will cause cost and revenues to change. However, changes in other variables such as production efficiency, sales mix, price levels and production methods can have an important influence on sales revenue and costs. If significant changes in these other variables occur, the CVP analysis presentation will be incorrect.

2. Simple products or constant sales mix:

   CVP analysis assumes that either a single products is sold or, if a range of products is sold, that sales mix will be in accordance with a predetermined sales mix is used, it an depict in the CVP analysis by using average revenues ad average variable costs for a given sales mix.

   BEP is not a unique number; it varies depending on the composition of the sales mix. Because the actual sales mix is different from the budgeted sales mix, the actual average unit contribution is different from that used in the budgeted BEP calculations.

   Thus, the BEP and the expected profits or losses at various output levels will also change. Any CVP analysis must therefore be interpreted carefully if the initial product mix assumptions do not hold.

3. Complexity-related to fixed cost does not change:

   CVP analysis assumes that complexity-related cost will remain unchanged. Cooper and Kaplan illustrate that many so-called fixed cost vary not with the volume of items manufactured but with the range of items produced (i.e. the complexity of the production process).complexity-related costs do not normally vary significantly in the short run with the volume of production. If a change in volume does not alter the range of product then it is likely that complexity-related fixed costs will not alter but if volume stays constant and

the range of items produced change then support department fixed cost will eventually change because of the increase or decrease in product complexity.

CVP analysis assumptions will be violated if a firm seeks to enhance profitability by product proliferation, i.e. by introducing new variants of products based on short term contribution margins. The CVP analysis will show that profits will increase as sales volume increases and fixed cost remains constant in the short term. The increased product diversity, however, will cause complexity-related fixed cost to increase in future periods and there is a danger-which long term profits may decline as a result of product proliferation. The CVP analysis incorporates the fixed cost required to handle the diversity and complexity within the current product range, but the costs will remain fixed only if diversity and complexity are not increased further. Thus, CVP analysis will not capture the changes in complexity-related costs arising from changes in the range if items produced.

4. Profit are calculated on a variable costing basis:

The analysis assumes that the fixed costs incurred during the period are charged as an expense for that period. Therefore, variable costing profit calculations are assumed. If absorption- costing calculations are used, it is necessary to assume that production equals to sales for the analysis to predict absorption costing profits. If this situation does not occur, the inventory levels will change and the fixed overheads allocated for the period will be different from the amount actually incurred during the period. Under absorption costing, only when production equals to the amount of fixed overheads incurred are equals to the amount of fixed overheads changed as expenses.

5. Total costs and the total revenues are linear functions of output:

   The analysis assumes that unit variable cost and selling price are constant. This assumption is only likely to be valid within the relevant range of production.

6. Analysis applies to relevant range only:

CVP analysis is appropriate only for decisions taken within the relevant production range and that it is incorrect to project cost and revenues figures beyond the relevant range.

7. Cost can be accurately divided into their fixed and variable element:

   CVP analysis assumes that costs can be accurately analyzed into their fixed and variable element s. Even the, separation of semi-variable cost into fixed and variable elements are extremely difficult in practice. Nevertheless, a reasonably accurate analyse is necessary, if CVP analysis is to provide relevant information for decision- making.

8. The analysis apply only to a short-term time horizon:

In the short-term, the cost of providing a firm's operating capacity such as property taxes and the salaries to the senior managers are likely to be fixed in relation to the changing in activity. Decision on the firms intended future potential level of operating capacity would determine the amount of capacity cost to be incurred. This decision will have been made previously as part of the long-term planning process.

Once these decisions will have been made, they cannot be easily reversed in short-term. It takes a time to significantly expand the capacity of plant and machinery a reduced capacity. Furthermore, plant in investment and abandonment decision should not be based on short-term fluctuation in demand within a particular year. Instead, they should be reviewed periodically as part of the long-term planning process and decisions based on prediction of long-run demand over several years. Thus, capacity costs will tend to be fixed in relation to changes in activity within short-term periods such as one year. However, over long-term period significant changes in volume or product complexity will cause fixed costs to change.

It is therefore assumed that in the short-term, some costs will be fixed and unaffected by changes in volume. In the short-term, volume is the most important

variable influencing total revenue, costs and profit. For this reason, volume is given special attention in the form of CVP analysis. However, in the long run, other variables besides, volume, will cause costs to change. Therefore, the long-term analysis should incorporate other variables, besides volume and recognizes that fixed cost will increase or decrease in steps in response to changes in the explanatory variables (Khan & Jain, 1993).

2.2.3 Terms used in CVP Analysis

Variable Cost

The cost, which varies according to the level of production or output, is called variable cost. It fluctuates in total amount but tends to remain unchanged per unit as production activity changed. Materials costs, direct cost, etc are variable cost. There is a linear relationship between the volume and variable cost i.e., the cost increases or decrease as the volume increase or decreases (Jain & Narayan, 1991).

Fixed Cost

The cost, which remains unchanged to an entire range of production or output, is called fixed cost. Thus, fixed cost is the cost which remains constant in respect to the changes in the output within a relevant range, the main characteristic of fixed cost is that it is fixed within a range whereas in per unit cost, it will change. For example, rent, insurance, etc.

Semi-Variable Costs

Semi-variable cost is the cost, which remains fixed to a certain range of output and varies thereafter in accordance with the change in activity. In other words, the cost which has characteristics of fixed and variable cost is semi variable costs. It is even called mixed cost. For example, lighting, indirect material, individual labor, cost of overtime, repair and maintenance, etc.

Step Fixed Cost

It is the fixed cost, which remains constant up to certain level of capacity. After meeting the capacity, there is an increment in the fixed cost by certain amount.

Regularly, the fixed cost will increase up to the point, where the cost meets its existing capacity.

Break Even Analysis

Break even analysis is a logical extension of marginal costing. It is based on the same principle of classifying the operating expenses into fixed and variable. Now a day, it has become a powerful instrument in the hands of policy makers to maximize profit. The B/E analysis is a specific way of presenting and studying the inter-relationship between the cost, volume and profit. It provides information to management in the most precise manner.

The B/E analysis established a relation between the revenues and cost with respect to the volume. It indicates the level of sales at which cost and revenue are in equilibrium. The equilibrium point is normally called BEP (Batliboi, 1991).

2.2.4 Special problems in CVP analysis

CVP analysis is applied to individual products or parts of the business and to company as a whole. In the latter case, there are three special problems may be encountered (Mukherjee & Hanif, 2000).

- ❖ The Activity Based: When two or more products or activities are combined for BEP analysis, the activity based is usually in amount. Product unit is used for single product. The activity based is must be in additive units using a common denominator of volume or output in multiple products. Therefore, for the company as whole, net sales amount are usually the only satisfactory common denominator because manufacturing, selling and administrative activities are expressed in contributions.
- ❖ The change in inventory: Normally, the budgeting changes in inventories (i.e. finished goods and work-in –progress) are immaterial and thus may be disregarded in CVP analysis. On the other hand, when the changes in budgeted inventory are significant; it should be included in analysis. Including the effect of inventory changes in CVP analysis requires

subjective judgements about what management might do (about making inventory changes) at different volume and the conceptual precision is desired. Management considers two practical approaches or policies are desired. Management considers two practical approaches or policies in inventory changes often used:

- Disregard the inventory changes
- Include the inventory changes

❖ **The non-operating incomes and expenses:** Non-operating income (gains) and expenses (losses) and extraordinary gains and losses, if materials in amount, cause another problem in CVP analysis. The basic issue is whether they should be included or excluded. Extra-ordinary gains and loses are non-recurring and unusual: therefore, they should be excluded. Non-operating incomes and expenses are recurring but they are not related to ongoing operations. Management consider the policy may be to:

a) Include the non-operating incomes and expenses;
b) Exclude the non-operating incomes and expenses;

2.2.5 Utility of B/E Analysis

Break-even analysis is the most useful technique of profit planning and control. It is a device to explain the relationship between cost, volume and profits. The utility of the break-even analysis lies in the following advantage (Pandey, 1992).

- It is a simple device to understand accounting data.
- It is a useful diagnostic tool.
- It provides basic information for further profit improvement studies.
- It is useful method for considering the risk implications of alternative actions
- The break-even analysis is a simple concept to comprehend and interpret the accounting data. Many business executives and others are unable to understand accounting data contained in financial statements and reports.

When these data are presents through break-even charts, it becomes very easy to grasp and interpret them. However, the executives using break-even analysis should remember the limitations of this device and should not attach too much value to it.

The break-even analysis is a useful diagnostic too. It indicates to management the causes of increasing break-even point and falling profits. The analysis of these causes will reveal to management what actions should be taken. As a practical matter, knowledge of where the break-even point lies can be quite useful to management in determining the need for action. However, an increasing break-even point should not always be a matter of alarm to management. The important information to be analyzed is break-even as a percentage of capacity. If the break-even point as a percentage of capacity is increasing, it indicates unfavourable conditions. It is this kind of situation which needs immediate action. It is possible that due to plant expansion absolute break-even point may increase, but overall capacity may be increase. This situation, where the break-even point as a percentage of capacity does not increase, is not unfavourable.

In the break-even analysis, BEP is identified and P/V ratio prepares break-even charts and p/v graphs these whole set of information is important to evaluate the reasonableness and usefulness of profit plans and other budgets and forecasts prepared by management. The break-even analysis, thus, provides the basic information for profit improvement studies and it is a useful starting point for detailed investigations.

The desirability of an action should be considered on the basic of its profit as well as risks. If profit alone is considered, a firm may commit to a risky action. The break-even analysis, to some extent, is a useful method for considering the risk implications of alternative actions. Considering the effects of the alternative action on the break-even point can approach the problem of risk evaluation. From one alternative, a firm may expect higher profit and also a higher break-even point,

while another alternative maybe produce comparatively lower profit but may also entail a lower break-even point. In taking a decision, the firm should not only consider the profits expected from the alternative but also the probability of reaching the BEP.IF the probability of achieving the BEP sales is low, the firms should prefer the second alternative where the BEP will be reached earlier (Pandey, 1992).

2.2.6 Limitations of B/E Analysis

The BEP analysis is simple and useful concept. But it is based on certain assumptions, which have been discussed earlier. These assumptions limit the utility and general applicability of the B/E analysis.

Therefore, the analysis should recognize these limitations and adjust data, wherever possible, to get meaningful result. The B/E analysis suffers from the following limitations (Khan & Jain, 1993):

- It is difficult to separate costs into fixed and variable components.
- It is not correct to assume that the total fixed cost would remain unchanged over the entire range of volume.
- The assumption of constant selling price and unit variable cost is not valid.
- The B/E analysis is a short-term concept and has a limited use in long range planning.
- The B/E analysis is a static tool.

2.3 Review of the Previous Dissertations

The cost volume profit analysis in the context of particularly in public manufacturing enterprise seems to be new subject of study for research and analysis.

Bhattarai (2000) has conducted research on profit planning of non manufacturing public enterprises in Nepal – A case study of Nepal Oil Corporation limited.

The objective of this study was to appraise the performance of Nepal oil corporation ltd. And to recommend to introduce prove comprehension profit planning system. Thus the specific the various accounting system of NOC. The procurement and distribution channel system of petroleum oil and lubricant products. Has been analyze the profit planning of NOC. Provide recommend and to provide suitable suggestion to the corporation.

On the basis of data presentation and their analysis the most remarkable findings relating to this study have been presented below: The corporation's goals and objective are not clear. The corporation has not and clear cut policy of purchase sales and inventory. The corporation is planning section is very poor. Lack of detail and systematic labour, capital expenditure, selling and distribution and overhead plan. The decision making power in this enterprise is concentrated only in top level management. NOC is unable to define clearly the duties and responsibilities of the employees. There is no cost classification system. Red, Tapism in implementation phase of profit plan. HMG intervention through rules, regulation and circular. There is no any evaluation system for capital decision making. There is no performance reporting and reward and punishment system. There is no arrangement of any accounting and management planning training by the corporation. Pricing is governed by the government.

Adhikari (2004) has conducted the research on the topic" Profit Planning in Manufacturing Enterprises: A Case Study of the Dairy Development Corporation". This research has disclosed how effectively the functional budgets are being applied as tools for profit planning in DDC.This research is mainly based on secondary data.

Adhikari's main objective was to analyze the functional budgets on sales and production sector of DDC. To analyze various accounting ratios, measure the profitability and efficiency of DDC. To analyse the budget target and its

achievement along with reason of deviation. To provide valuable recommendation and suggestion based on analysis.

Adhikari has listed the following major findings:
DDC has practiced 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 cost and variable cost. There is positive correlation between target and actual Production of Milk. Most of the budgeted figures are higher than real (actual) figure. DDC has applied stable inventory policy with opening stock of inventory but this policy is not applied in practice closing stocks quantity is not fixed. DDC has 1% store losses and O.O5% distribution losses of milk. DDC has prepared direct labor budget only based on technical and administration. DDC has not been practicing to plan effectively execution of program by supervision & monitoring. DDC has not clear attainable objectives, policies and strategies. The present management does not have any program of perfect planning. Timely accounting and auditing works are not maintained. Financial statements and accounting system are out of the financial rules.

Aryal, (2006) has conducted a research on topic of “CVP as a tool to measure effectiveness of profit- A case study of herbs production and processing company limited” was analyse the variances between target and actual sales of HPPCL. Evaluate the profitability, financial position of HPPCL. Analyse the CVP of HPPCL. Provide suitable suggestions and recommendations based on the analysis for improving of HPPCL condition etc.

This study has found that the budgeted sales and actual sales are in fluctuating trend. Actual sales lower than budgeted sales. The company doesn't apply any appropriate and effective sales forecasting techniques. The correlation of coefficient between budgeted sales and actual sales is positive. It indicates that increasing in the budget sales would also increase in actual sales or vice versa. Planning premises is communicated from top to middle level. There is no cost classification system in the company. The costs are not segregated in to fixed cost and variable cost in a systematic manner. Periodic performance report has not been mainly trained to find the underlying causes of poor achievement. HPPCL has practice of making tactical budget to same extent but it has not practice of preparing strategic budget. The gross profit margin has fluctuated, i.e. 16.8143 to 32.1043 percent, which indicates the low performance of the company. The net profit margin has too low, i.e. -57.6181 to -16.3906. It seems to be most unsatisfactory. The operating ratio of the company is higher than the normal. There is existed little gap between actual sales and operating expenses, which implies that the margin is too low. The average of degree of operating leverage is highly fluctuated from negative to 19.0778 times, which means the company observed more fixed costs. There is no clear record of each products contribution of profit, or in fulfilling the establishing objectives. The profit volume ratio has not constant and sufficient profit too. Sales forecasting is not based on the realistic ground. HPPCL only use the sales force composite method n sales forecasting but it has not practice of using statistical techniques in sales forecasting. There is no any special system of taking corrective action for re-planning. The pricing policy of the company is not scientific. HPPCL fails to maintain its periodic performance report systematically.

Ghale (2006) had studied on Cost Volume profit analysis as a tool to measure effectiveness of profit planning and control of Nebico pvt. Ltd. were study relationship of cost, volume and profit and profit as tool of budgeting. Analyze the

cost volume profit of the company and its impact in profit planning. Evaluate the sensitivity of profitability. Provide suggestion and recommendation for improving Nebico's condition.

The major findings upon analysis of Nebico Pvt. Ltd's activities for study period were as follows: There is great lack of skilled employees to prepare budgeting and analyze their financial position. Nebico has relatively high fixed cost (i.e. interest, depreciation, repair Salary and wages, provident fund subsidies etc). The company has no detailed lists of fixed, variable expenses. No specific list is available for mixed expenses planning which is significant in profit planning and control. Sales trend of the company is fluctuating and lacks efforts to improve them. Variable cost of Nebico is proportionately higher than fixed or total cost hampering the overall company's profit. Nebico products - biscuits and confectioneries are supplied all over Nepal and in foreign countries too. Therefore Nebico is partially successful to substitute the important of biscuits and confectioneries. Nebico has tried to adopt new technology for improving quality products. Financial state of the company is at declining stage and requires new and effective marketing strategies to improve current position through utilizing available resources to the possible extent. Proper co-ordination among the production, administrative, distribution, sales and inventory department is required.

Dahal (2006) has studied on the topics of *"Cost volume profit analysis as a tool to measure the effectiveness of profit planning with special reference to Dabur Nepal Ltd."* This was submitted to Nepal commerce Campus, TU in Partial fulfillment of Master's Degree in the year 2006.

The main objective of the research was to examine the variance between target and actual sales and production. To show the capacity utilization of Dabur Nepal Ltd. To forecast future production and sales. To analyze financial performance.

Dabur Nepal Pvt. Ltd constitutes lack of adequate inventory policy. No control over external factor i.e. it has poor SWOT analysis. The researcher also provides the following recommendations; CVP analysis should be considered while formulating profit plan. Profit planning manuals should be communicated from top level to lower level. The company management should look carefully into the basis of setting target for sales and achieving those targets meaningfully.

Timilsina (2007) had studied on the topic *"cost volume profit analysis of Himalayan distillery limited.)"*. This was submitted to Nepal commerce Campus, TU in Partial fulfillment of Master's Degree in the year 2007.

The general objective of this study is to evaluate the C-V-P analysis of multi products manufacturing company. The specific objectives of this study are: To analyze different components of cost as per cost behavior. To analyze the impact of fixed cost on profit. To analyze break even point of overall firm as well as individual product. To show the relationship of cost, volume and profit between multi products. To provide suggestions and recommendations on the basis of major findings.

Mr. Timilsina had pointed out some major findings in his research. Some major findings are as follows; Different types of profit planning tools, which are used in the academic field, are not found applied by HDL. C-V-P analysis is not applied by HDL as no segregation of cost in to fixed and variable, which is the hardcore of CVP analysis.

The researcher also provides the following recommendations; Classification of expenses item as variable and fixed or controllable and non-controllable must be made within specific framework of responsibility and time. Separate cost control department should be established for the effective management and reduction of cost. HDL should consider about the product line to improve its profit. Market

studies on demand, supply and pricing of product should be carried out and loss oriented costs should be identified and control. HDL should consider BEP analysis which preparing sales plan, production plan and selling price of its products.

Gurung (2008) has studied on Cost Volume Profit analysis of public enterprise in Nepal - comparative analysis between Nepal Telecom and Nepal Electricity Authority.

The objective of his study and analyze the existing provisions regarding Cost Volume & Profit analysis of Public Enterprises in Nepal i.e. NT & NEA. Study & find out the current cost benefit ratios of these two public enterprises. To find out current comparative analysis between these two big public enterprises. To identify that factor that affects benefit and cost of these enterprises. Find out Break Even Level for avoiding losses. Study & comparative analysis about capacity margin of safety &profits of these two big public enterprises. Recommend necessary solution of the problems.

This study has found some major issues regarding NT & NEA while analyzing the data. The main important factor extracted from above analysis has described briefly in following bullets: The income of NEA is higher than NT in each year and expenditure of NEA is also higher than NT in same ratio. The expenditures ratio of NEA is higher than NT so, profit ratio of NEA is lower than NT which means NT profit line is in increasing trend while NEA profit line is in decreasing trend or negative. After segregated the cost into fixed & variable the percentage ratio of NT are 66 & 34 respectively whereas NEA's percentage ration are 46 & 54 respectively. In conclusion this analysis articulate that fixed ration of NT is higher than NEA whereas variable ration of NT is lower than NEA. Ratio of profit to sales of NT is in linear trend whereas NEA's in non-linear trend (decreasing). The top level executive are only involved in planning & decision making but lower level participation is not encouraged. According to comparative analysis of both enterprises, the researcher found as recommendations for both enterprises are

the NEA should reduce their total cost to achieve higher profit in coming year whereas NT should reduce their fixed cost in their respective up coming year. Break even point of NT are in parallel trend whereas NEA are in fluctuating trend. To achieve the target BEP level for NEA their sales revenue grate should be increased or total cost level should be reduced whereas BEP level of NT is quite satisfaction than NEA. and also remarkable point is NT's Contribution Margin Ratio is in high whereas NEA's Contribution Margin Ratio is in low. Margin of Safety of NT are in good position whereas NEA's is in negative. In two sensitivity analysis viz. i) Sales Revenue decreases by 5%,ii) Variable Cost decrease by 10%-effect on Break Even Point proved that its sales revenue decreases than new break even point would be gradually increased whereas if variable cost decreases then new break even gradually decreased.

Khatiwada (2009) had conducted a research study on to examine Cost Volume Analysis" as a tool to measure effectiveness of PPC of "Unilever Nepal Ltd." The objective of the study was: To study the relationship of cost, volume and profit. To evaluate profitability, financial position and sensitivity of UNL activities. To analyze the CVP of the company and its impact on productivity To make the analysis of multi- Product.

Khatiwada has listed the following major findings; total sales of the company are fluctuating. The contribution of domestic sales on total sales is greater than export sales. The company produces different products among them product toilet soaps have made highs contribution on total sales. But the sales of product tea on total sales in found nominal. Expenses of UNL are fluctuating variable cost as well as fixed cost increased of decreased haphazardly, but the trend of semi-variable cost decreased every year. The company has no details of systematic expenses plan. The fixed, variable and mixed expenses plan is the necessary elements for profit planning and control. The proportion of variable cost is higher than fixed cost in

total cost amount which made for lower contribution margin. Variable cost volume ratio of UNL is nearly 80% on average. It means tat the company is about 20% of total sales. Profit of the UNL increased year by year though sales decreased in the same year profit increased due to the reduction of the fixed cost. From correlation analysis, it is found that there is low degree of positive correlation between sales and net profit. It change is happened on sales, the profit will also change but not in the same ratio. The profitability position of the company was satisfactory but not as expected. BE points decreased it is due to the decreases in fixed cost and increase in P/V ratio. As the company has high margin of safety. The company might be at lower risk. The company's operation leverage decreased which indicated decreased in operating risk of the company.

2.4 Research Gap

Most of the previous research studies were on profit planning system of manufacturing organization or production oriented activities especially in public enterprises. The previous researches did not disclose which of the profit planning and control tools were in practice, which were not and why. The research could find only one research study that has been related to profit planning of manufacturing enterprise (A case study of DDC). Which was based on functional budget and production and accounting ratios.

This research is a new one in this field as no study yet has been made so far in the profit planning of DDC. It was taken for previous fiscal years when the company was facing political instability. It was a mainly based on secondary data. This study has tried to indicate the role of budgets for effective formulation and implementation of profit planning system as well as to see how far the DDC was practicing the CVP analysis. This study has analyzed the profitability position of DDC by applying the tools of ratio analysis and others mathematical and statistical tools. Finally, it concludes the various findings of research based on recommendations were made.

CHAPTER III
RESEARCH METHODOLOGY

The main objective of this research is to understand the practical aspects of the enterprise and to highlight the applications and current practice of Profit Planning and its effectiveness in realizing profit in Dairy Development Corporation. Moreover the objective of the study is to analyze, examine, and interpret the budgeting techniques with the help of various financial statements, accounting analysis, statistical tools and non-financial subject matters. The major aspects of research methodologies adopted in course of this study were as follows:

3.1 Research Design

The research design followed in this study is descriptive research design which examines and evaluates budgeting procedure in the process of profit plan of DDC. This study is closely related with the various functional budget and other accounting statements that the company has adopted. A descriptive research design was used in this study to analyze the performance of past five years from the FY 2005/06 to FY 2009/10. The research possesses both quantitative as well as qualitative aspects.

3.2 Sources of Data

The secondary source of data has been used which are mainly taken from the annual reports, cost sheets, auditors' reports of DDC and other published and unpublished data. The information from weekly magazines, daily newspapers and business journals has taken while preparing this research work.

3.3 Population and Sample

All the dairy industries are the population of this study. But only DDC was taken as sample of this study because it is only one dairy industry in public sector which is the largest industry among them.

3.4 Period Covered

The study covers only for five fiscal years period. The period for conducting research starts from the fiscal year 2005/06 to 2009/10.

3.5 Data Collection and Analysis

Secondary data were collected from office records, annual reports, balance sheet, profit & loss account and unpublished thesis related with this matter.

The analysis of data were done by using different accounting, financial and statistical tools. The statistical tools used are mean, co-relation, regression and standard deviation. Similarly different ratio analysis, variance analysis etc. were used as financial tools. As for the accounting tools different functional budgets were taken. Break even point is taken profit planning tools in this research.

3.5.1 Accounting Tools

The analysis of data were done by using functional budgets, contribution margin and break even point tools.

$$\text{BEP in Rs.} = \frac{\text{Fixed Cost}}{\text{Contribution Margin}}$$

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

3.5.2 Statistical Tools

The analysis of data were done by using mean, correlation, regression, standard deviation statistical tools.

$$\text{Mean} = \frac{\phi x}{\rho}$$

$$\text{Standard Deviation} = \sqrt{\frac{\phi x^2}{\rho}}$$

Trend line $Y = a+bx$

Where, $a = \frac{\phi y}{\rho}$ $b = \frac{\phi xy}{\phi x^2}$

3.5.3 Financial Tools

As for the financial tools different ratio analysis, variance analysis were used for the analysis of the data.

$$\text{Net Profit Margin} = \frac{Net\,\mathrm{Pr}\,ofit}{Sales} \text{ x } 100\%$$

$$\text{Total Expenses to sales Ratio} = \frac{TotalExp}{Sales} \text{ x } 100\%$$

CHAPTER IV
DATA PRESENTATION AND ANALYSIS

This chapter includes analysis of data collected and their presentation. In this chapter the effort has been made to analyze "Profit planning of Dairy Development Corporation''. Detail study of trend of cost & profit, relation of cost volume and profit, profitability position and budget target and its achievement along with the reason of deviation and analyses is done with reference to the various reading and literature review in the preceding chapter effort is made to analyze and diagnose the recent DDC market movement. The analysis of data consists of organizing tabulating and assessing financial and statistical result from different tables and diagrams are drawn to make the result more simple and understandable.

4.1 Analysis of Target and Actual Sales

DDC has a practice of preparing sales budget before the commencement of another fiscal year. DDC roughly prepares sales budget on the basic of past experience and performance. It does not forecast the sales for the coming period by product and sales region by assessing the marketing variables affecting the products.

The private dairy firms played leading roles in two strategically significant issues. Those were distribution channel and promotional aspects. DDC's promotional activities are insignificant. Private dairy firms approach to the costumer early in the morning with their milk pouch to cater in urban areas in which DDC lagged behind.

The starting point for the evaluation for sales revenue planning is to analyze past trends of sales revenue and its achievement. Table 4.1 shows DDC's sales revenue

trends (both planned revenue and actual revenue) for the period of fiscal year 2005/06 to 2009/10.

Table 4.1

Sales Revenue Trend

(In Rs. 00000)

Fiscal Year	Sales		Variance	
	Budgeted	Actual	Amount	Variance %
2004/05	18125.4	15896.63	-2228.77	-14.02
2005/06	18532.9	15363.4	-3169.5	-20.63
2006/07	18925.4	16803.53	-2121.87	-12.63
2007/08	19626.7	18006.73	-1619.97	-9.00
2008/09	21125.4	21933.09	807.69	3.68
2009/10	23532.9	26283.5	2750.6	10.47

(Source: Annual Report of Dairy Development Corporation)

The variance of actual sales and budgeted sales of fiscal year 2004/05 was negative by 14.02 percent. In the fiscal year 2005/06, 2006/07 and 2007/08 the variance was negative figure i.e. 20.63 percent, 12.63 percent and 9 percent respectively, which is not feverable for the company. Where as in fiscal year 2008/09 and 2009/10 there was positive variance with actual sales and budgeted sales which is the good aspect for the company. The performance of DDC based on sales revenue trend was satisfactory as the increment on sales trend. It is necessary to compare the budgeted sales revenue and actual sales revenue of the DDC to analyze the performance of the DDC to evaluate the efficiency of the planner of DDC. Due to this reason, table 4.2 shows the budgeted sales and actual sales with their respective achievements.

Table 4.2

Budgeted sales and Actual sales revenue and achievements

(In Rs '00,000')

Fiscal Year	Budgeted sales	Actual Sales	Achievements
2005/06	18532.9	15363.4	82.90
2006/07	18925.4	16803.53	88.78
2007/08	19626.7	18006.73	91.74
2008/09	21125.4	21933.09	103.82
2009/10	23532.9	26283.5	111.70

(Source: Annual Report of Dairy Development Corporation)

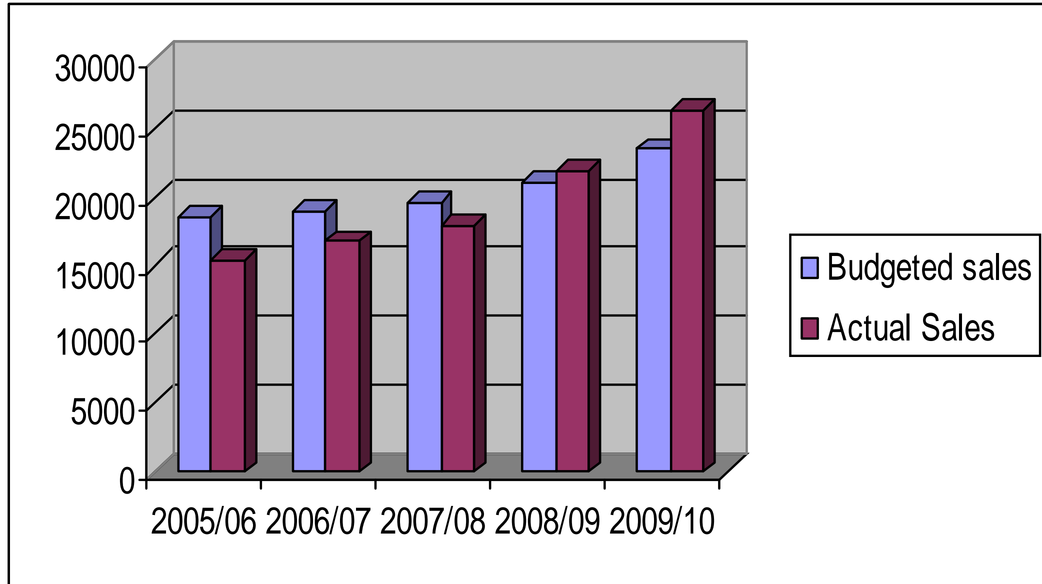
The table 4.2 showed that there was a small gap between the budgeted sales and actual sales of DDC. It showed that actual sales were in increasing trend. In the fiscal year 2005/06 the achievement was 82.9% where in the fiscal year 2006/07, it reached to 88.78%, in the fiscal year 2007/08 it increased to 91.74%, and in the fiscal year 2008/09 it was 103.72%. Finally in the fiscal year 2009/10 it reached to 111.70%.In last Two fiscal year DDC was able to achieve its target. On the basis of the Table 4.2, it can be concluded that budgeted sales were prepared on adhoc basis and sales targets were over estimated. Planning Officers should seriously think about the previous year's performance while preparing sales plan of the coming year. There should be effective sales forecasting in DDC.

The budgeted sales and actual sales achievement can be shown with the help of bar diagram.

Fig 4.1

Budgeted sales and actual sales

in Rs (00000)

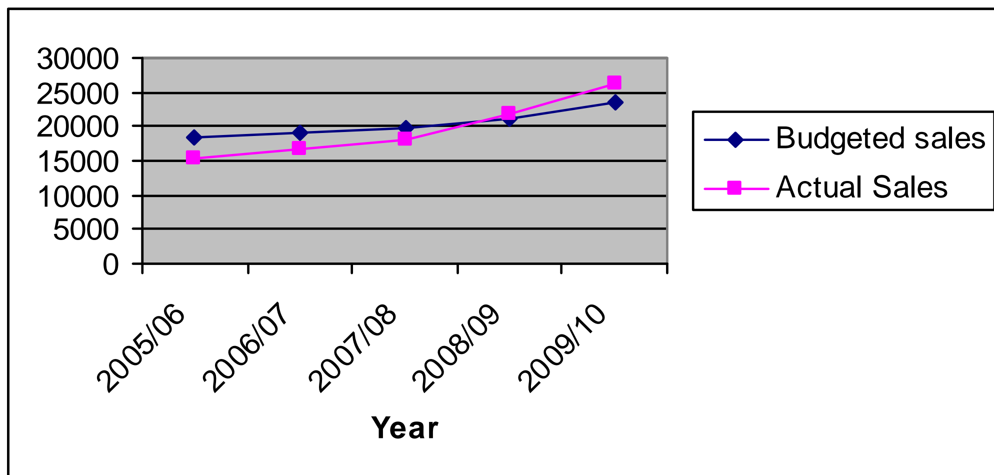


The figure 4.1 showed the relationship between the budgeted sales and actual sales revenue. It showed that there was small gap between the budgeted and actual sales achievements which were not consistent.

Fig. 4.2

Budgeted sales and actual sales

in Rs (00000)



The above figure 4.2 made clear that the gaps between the actual sales and budgeted sales were broadening year by year this shows lack of efficient sales planning. In subsequent years this has broaden and therefore a realistic sales forecasting should be made.

In order to find out the nature of variability of the budgeted sales, actual sales and achievement of different years, various statistical tools were used.

Table 4.3

Summary of statistical calculation of Sales

Rs. in 00000

		BUDGETED	ACTUAL
		5	5
Mean		20348.6	19678
Std. Deviation		2036.33	4426.89
Variance		782547.013	86133.78

(Source – Annex 1)

Correlations

		BUDGETED
BUDGETED	Pearson Correlation (r)	1
	No Of Year	5
ACTUAL	Pearson Correlation (r)	0.9961
	No Of Year	5
Coefficient of variation r2		0.100072

(Source – Annex 1)

The table 4.3 showed that the value of mean and standard deviation. Mean of the budgeted sales was Rs 20348.6 and actual sales mean was Rs 19678. Thus this shows that actual sales was consistent than the budgeted sales. Like wise Standard deviation of the budgeted sales was 2036.33 where as actual sales was 4426.89 This also showed that the actual sales are more consistent in comparison to the budgeted sales.

Another statistical tools correlation was used to analyze the degree of relationship between the budgeted sales and actual sales. Karl Pearson's correlation showed that the value of correlation coefficient lies between +1 and -1. The value was 0.9961 which showed there was positive relationship between budgeted sales and actual sales. This means that the actual sales would in increase with the budgeted sales and vice versa.

Another statistical tool called least square method was used to analyze the trend of the actual sales and to estimate the possible future sales for a given time. This tool is considered as a time factor because time element is also important factor to analyze the trend. With the passage of time, the sales achievement will be changed which can be expressed by the components of time series.

A straight line trend by the method of least squares will show the relationship between the actual sales years. For the least square method, it is assumed that the sales will consistently changed with the change in time. To fit the straight line trend, time factor (X) is considered as independent variable and the actual sales achievement (Y) is dependent upon time.

Now the straight line trend by last square method for actual sales upon time is expressed by

$Y = a + bx$ ____________________ (1)

Where Y = actual sales achievement

X = deviation taken in time

Table 4.4

Fitting straight line trend by least squares of sales

Fiscal year	Actual sales in Rs 00000(Y)	x=X-2007-08	x2	xy
2005/06	15363.4	-2	4	-30726.80
2006/07	16803.53	-1	1	-16803.50
2007/08	18006.73	0	0	0
2008/09	21933.09	1	4	21933.10
2009/10	26283.5	2	1	52567.00
	Y=98390.20	x=0	x2=10	xy=26969.80

Since = 0, then

a = Y/n = 98390.2/5 = 19678.04

b= xy/ x2 = 26969.8/10 = 2696.98

Now the best fit of straight line trend is obtained by substituting the values of a and b in equation 1, we get

Y = 19678.04+2696.98x

This trend line shows the positive relationship between time and actual sales achievements.

By using this trend line equation, we can estimate the actual sales for the fiscal year 2010-11 can be estimated.

The value of deviation for the fiscal year 2010-11, x=3

We have y=19678.04+2696.98x

=19678.04+2696.98x3

Rs 27768.98 Lakh

If the past sales trend does not change then the possible future actual sales will be Rs 27768.98 lakhs in the fiscal year 2010-11. The least square method application showed that the trend of the actual sales will have an increasing pattern.

Like wise sales the forecast for the fiscal year 2011-12 can be made.

For the fiscal year 2011-12, value of x=5,

We have y=19678.04+2696.98x

=33162.94

If the past sales trend does not change then the possible future actual sales will be Rs 33162.94 in the fiscal year 2011-12.

4.2 Trend of Expenses and Cost Variability of DDC

DDC it lacks adequate and effective policies regarding expenses plan. DDC has no well developed practices and approaches for controlling or reducing various types of expenses or cost.

The table 4.5 showed that the actual expenses of the DDC such as Collection, processing, selling, administrative, interest, depreciation and gratuity expenses from the fiscal year 2005-06 to 2009-10.

Table: 4.5

Actual Expenses Plan

In Rs '00000'

Expenses items	2005/06	2006/07	2007/08	2008/09	2009/10
collection expenses	14288.78	14973.8	16291.6	19161.07	23120.63
Selling Expenses	426.81	464.36	623.55	666.52	739.18
Administrative expenses	735.29	802.09	1176.65	1234.94	1339.51
Gratuity Expenses	537.5	162.58	553.86	7306..37	552.30
Deprecation Expenses	317.78	342.09	364.34	366.66	369.62
Interest Expenses	46.63	36.14	32.13	9.16	15.01
Total	16352.71	16781.06	19042.13	22168.95	26136.25

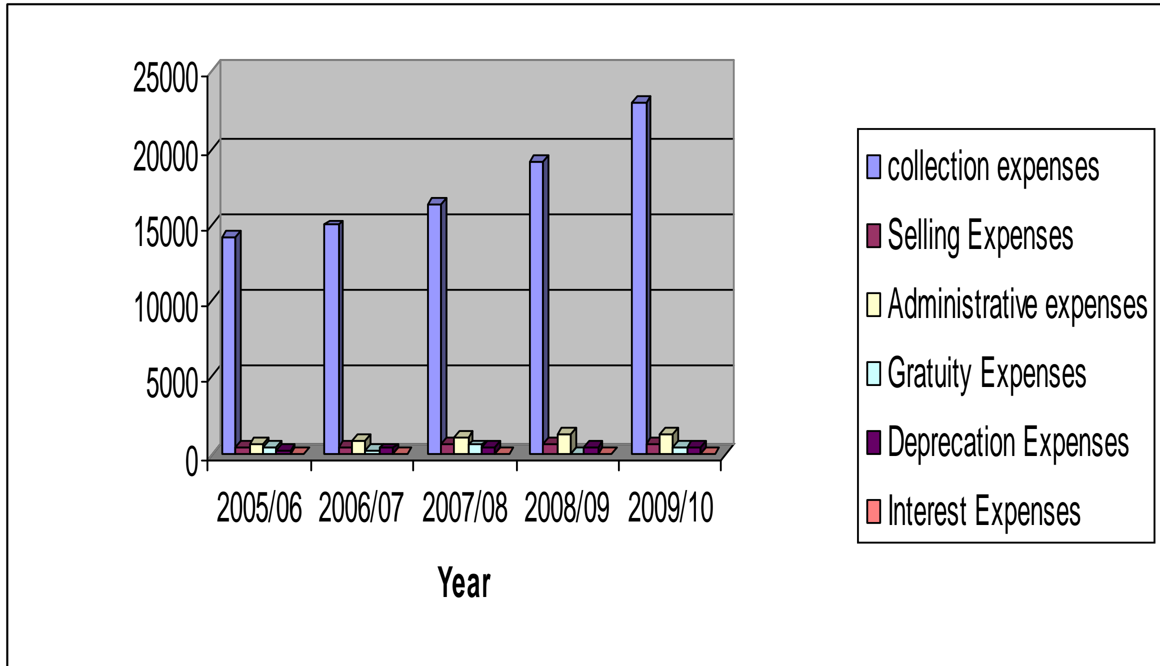
(Source: Annual Report of Dairy Development Corporation)

The collection expenses covered the maximum proportion of the total cost of DDC and gratuity cost covered the least proportion

Fig 4.3

Actual Expenses Plan

In Rs 00000



4.2.1 Trends of expenses of DDC

For planning of expenses it is necessary to know about the trend of expenses. The expenses trend analysis shows which cost is decreasing and which cost is increasing which helps for planning and controlling of expenses. Due to this reason this research work analyzed the expenses trend of DDC. The Table 4.6 shows the expenses trend of DDC from the fiscal year 2005-06 to 2009-10.

Table 4.6

Expenses Percentage trend of total expenses.

Expenses items	2005/06	2006/07	2007/08	2008/09	2009/10
collection expenses	86.00	89.23	85.55	86.55	88.46
Selling Expenses	2.00	2.76	3.27	3.00	2.82
Administrative expenses	4.50	4.78	6.18	5.57	5.12
Gratuity Expenses	3.20	0.96	2.90	3.30	2.11
Deprecation Expenses	1.90	2.06	1.91	1.65	1.41
Interest Expenses	2.40	0.21	0.76	0.04	0.057
Total	100.00	100.00	100.00	100.00	100.00

(Source: Annual Report of Dairy Development Corporation)

The table 4.6 showed that the collection cost was more or less similar throughout the study period from the fiscal year 2005-06 to 2009-10. The average collection expense was 87% of total expenses which was the largest expenses of DDC. The minimum collection expense was 85.55% in the fiscal year 2007-08 where as 89.23% was the highest in the fiscal year 2006-07.

The selling expenses, administrative and depreciation expenses were also in a same trend. The average selling expenses was 2.89% of total cost. Administrative expenses mean was 5.23% where as average depreciation cost was 1.78%.

Gratuity expense and interest expenses were also more or less recording 2.49% and 0.57% as mean for the entire research period. Thus collection expenses occupied the major share of expenses of DDC. Other expenses do not have substantial portion on the total expenses.

4.2.2 Identification of Cost Variability

DDC has not yet made cost classification of costs into fixed and variable costs. The fixed costs are beyond the capacity of control by DDC where as variable cost are controllable to some extent. Here the expenses are classified by judgmental basis into fixed and variable cost.

Table 4.7 explains about the cost variability of the cost of DDC for the study period.

Table 4.7

Identification of cost

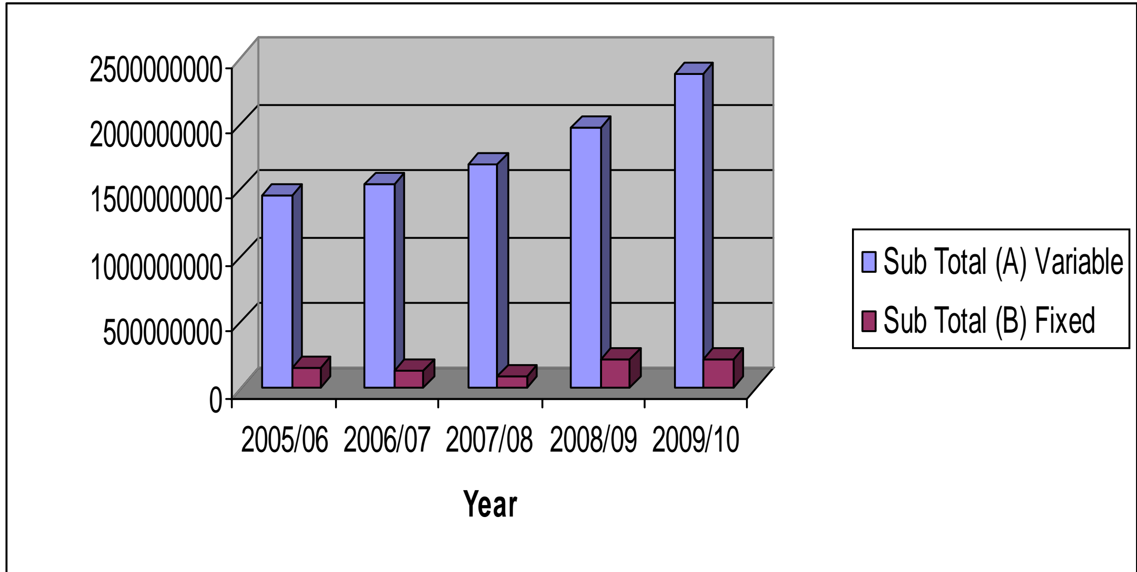
In Rs

Expenses items	Cost Behavior	2005/06	2006/07	2007/08	2008/09	2009/10
collection expenses	Variable	1144708429	1497384582	1629164826	1916107145	2312063599
Processing expenses	Variable	284171570	-	-	-	-
Selling Expenses	Variable	42681441	46437352	62355205	66652247	73918539
Sub Total (A)		1471561440	1543821934	1691520031	1982759392	2385982138
Administrative expenses	Fixed	73529349	80209132	11665206	123494625	133951778
Gratuity Expenses	Fixed	53753234	16258298	55386751	73063749	55230249
Deprecation Expenses	Fixed	31778505	34209863	26434380	36666382	36962464
Interest Expenses	Fixed	4663760	3614718	3213105	916235	1501770
Sub Total (B)		163724848	134292011	96699442	234140991	227646261
Grand Total		1635286288	1678113945	1788219473	2216900383	2613628399

The collection, processing and selling expenses are classified as variable cost because these costs change proportionately with sales and production volume. Similarly administrative, gratuity, depreciation and interest costs are classified as fixed costs as they are period cost and remains constant whatever be the volume of production and sales.

Fig 4.4

Cost Variability of DDC



The variable cost occupied the major share in the total expenses with comparison to fixed cost. Thus if DDC really wants to reduce its expenses, it has to reduce by reduce fixed cost.

It is also necessary to analyze the proportion of variable cost and fixed cost on the basis of total cost and sales through out the fiscal year 2005-06 to 2009-10.

Table 4.8

Percentage of Variable and fixed cost of Total cost and sale

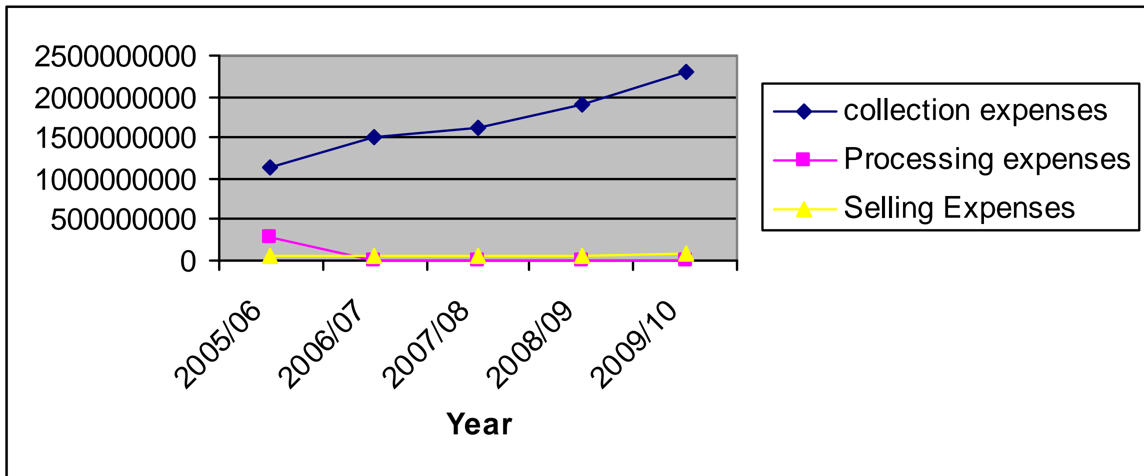
In Rs 00000

Fiscal Year	Variable Cost (RS.)	% Of TC	% of Sales	Fixed Cost (Rs.)	% of TC	% of Sales
2005/06	14715.61	89.99	95.78	1637.24	10.01	10.66
2006/07	15438.22	92.00	91.87	1342.92	8.00	7.99
2007/08	16919.20	88.85	93.96	966.99	5.08	5.37
2008/09	19827.59	89.44	90.40	2141.40	9.66	9.76
2009/10	23859.82	91.29	90.78	2276.46	8.71	8.66

The table 4.8 showed that the coverage of variable cost was higher than fixed cost. The diagrammatical presentation of collection, processing and selling expenses showed that variable cost was higher than fixed cost.

Fig 4.5

Trend of Variable costs

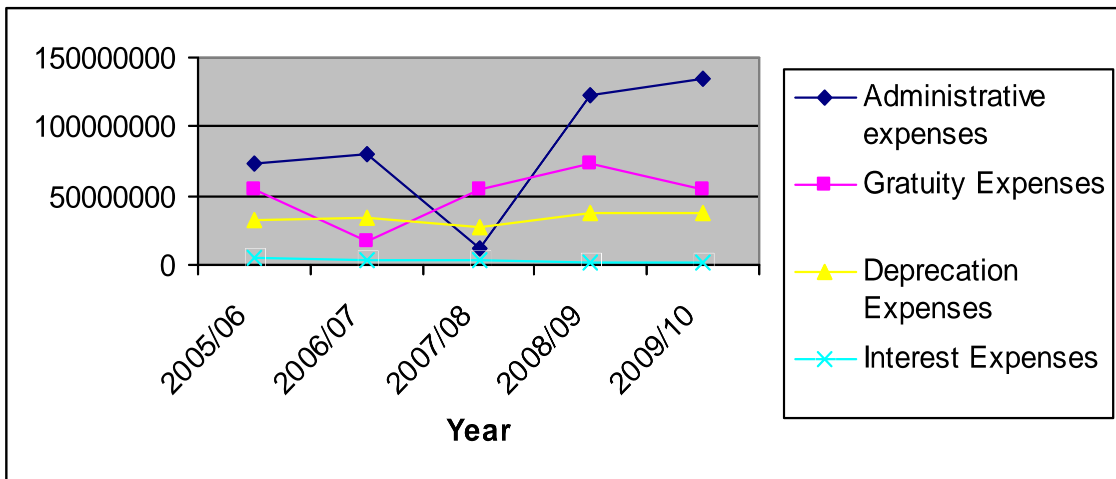


The figure 4.4 showed that the collection expenses was the largest expense in variable cost category where as selling expenses was the least variable cost.

Similarly the trend of fixed cost of DDC during the study period is presented in figure 4.5

Fig 4.6

Trends of Fixed Cost



The above graph showed that the trend of different expenses under fixed cost. The figure showed that the administrative cost was the highest in fixed cost category for the entire study period. Similarly gratuity expense was rising. And depreciation and interest expenses were consistent but interest expense was decreasing.

4.2.3 Inventory Consideration of DDC

In case of DDC we study only the finished goods inventory. Due to perishability of products i.e. milk, there is very lower quantity to be stored. The products of DDC such as milk, yogurt, cream etc cannot be stored for along time so that the DDC should keep small level of finished goods inventories.

Table 4.9

Total Inventory

In Rs

Fiscal years	Opening Inventory	Closing Inventory	Change in Inventory %
2005/06	5827586.31	62062979.21	964.9860149
2006/07	62062979.21	25861551.25	-58.33014854
2007/08	25861551.25	19543348.32	-24.43087373
2008/09	19543348.32	41183989	110.7314894
2009/10	41183989	98248772.79	138.5606037

The inventory of milk and milk products were fluctuating. The opening inventory was Rs 5827583.31 and closing stock was Rs 62062979.21. The excess closing inventory was due to over production and low sells of products. In the fiscal year 2006-07, the amount of opening inventory was Rs 62062979.21 and amount of closing inventory was Rs 25861551.25. Similarly in the fiscal year 2007-08, amount of opening inventory was Rs 25861551.25 where as closing inventory was Rs 19543348.32. Accordingly, in the fiscal year 2008-09, opening inventory was Rs 19543348.32 and closing stock was Rs 41183989. Finally in the fiscal year

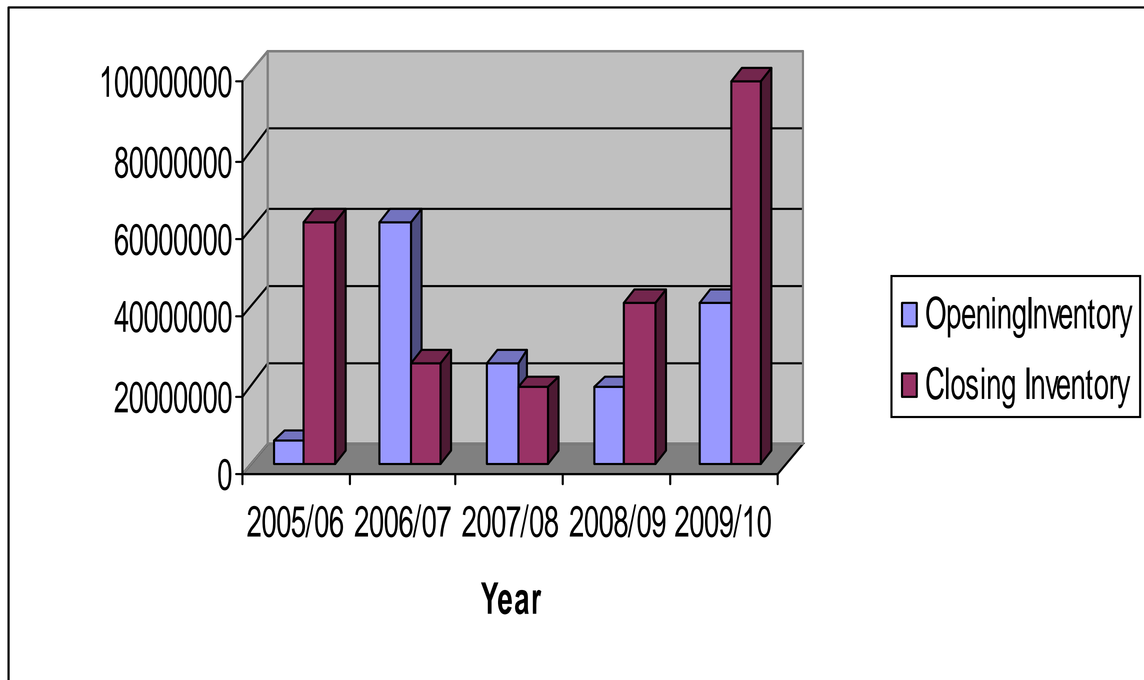
2009-10, opening stock was Rs 41183989 where as closing stock was Rs. 9824877.79. Thus it showed that there was no clear cut policy for maintaining stocks. In some year there was over production and there was huge closing stock and in some year closing was less which showed inefficient inventory management.

The inventory can also be shown in graph.

Fig 4.7

Total Inventory

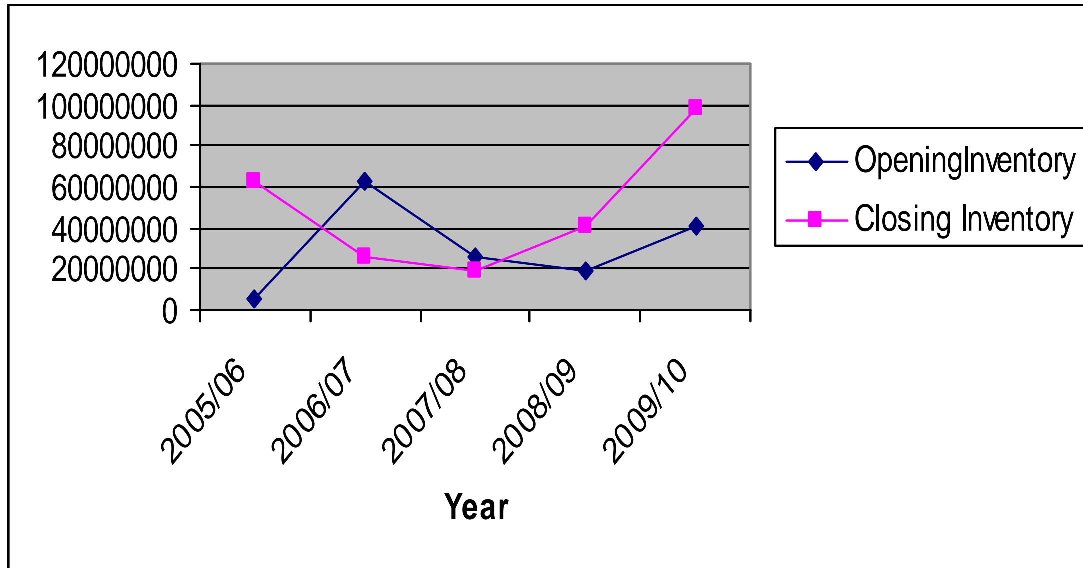
In Rs



The figure 4.7 showed that both opening stock and closing stocks were inconsistent.

Fig 4.8

Total Inventory in Rs



It is clearly seen that opening stock and closing stock are not in similar trend.

4.3 Trend of Profit and Loss of DDC

DDC was established to generate profit for its survival and growth. But DDC has not been able to generate profit in previous years and in initial year of study. DDC was unable to earn reasonable amount of profit and still not able to pay loans. The table 4.10 represents the profit and loss of DDC since fiscal year 2005-06 to 2009-10.

Table 4.10

Trend of Profit and Loss

In Rs '00000'

Fiscal years	Profit and loss amount	Sales revenue	% of profit on sales
2005/06	-25541.92	1536340.56	-166
2006/07	14702.49	1680353.67	0.87
2007/08	-89790.18	1800673.56	-4.98
2008/09	-8609.48	2193309.44	-0.39
2009/10	32263.65	2628350.97	1.22

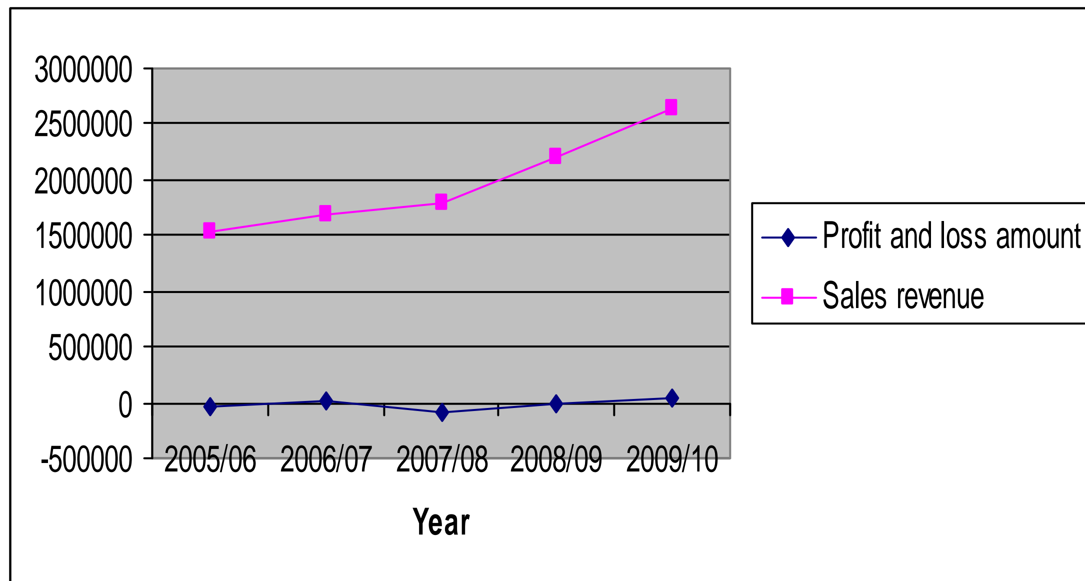
The table 4.10 revealed that DDC's profit was not consistent. In the fiscal year 2005-06, there was a was loss of 1.66% of total sales revenue. In the fiscal year 2006-07 there was small amount of profit of 0.87% of total sales. In the fiscal year 2007-08 there was huge loss of to 4.98% of total sales. In the fiscal year 2008-09 there is small loss of 0.39%. In the fiscal year 2009-10 there was nominal profit of 1.22%. Like wise there was loss of Rs 89790180 in the fiscal year 2007-08.

In comparison to profit amount, loss amount appears very huge in the study period. The reason of huge loss was due to excessive collection cost, interest on loan, high fixed cost and other administrative cost. The other causes of loss were inadequate plan and their implementation, lack of effective manipulation of funds and unbearable political pulls and pressure.

The trend of profit and loss can be presented in simple below figure also.

Fig 4.9

Trend of Profit and Loss



The least square method can be used to analyze the trend of profit and loss and to estimate the possible future profit or loss as dependent factor of year. Considering

the time factor as independent and profit or loss as dependent factor upon time, it shows relationship between year and profit.

Let the straight line be Yc = a + bx

Where Y = profit or loss

X = year

Table 4.11

Fitting straight line trend by least squares Net Profit

Fiscal year	Actual profit in Rs 000(Y)	x =X-2007-08	X2	xy
2005/06	-25541.92	-2	4	51083.84
2006/07	14702.49	-1	1	-14702.49
2007/08	-89790.18	0	0	0
2008/09	-8609.48	1	1	-8609.48
2009/10	32263.65	2	4	64527.30
	Y=-76975.44	x=0	x2=10	xy=92299.17

Since x=o, then

a= Y/n = -76975.44/5 = -15395.08

b= xY/ $\mathbf{x^2}$ = 92299.17/10 = 9229.91

Now substituting value of a and b in the above equation

We have Yc = -15395.08+9229.91x

For the estimation of profit for fiscal year 2010-11, we have a=3

Yc= - 15395.08+9229.91x3

Yc = Rs 12294.64 thousand

The estimated profit for the fiscal year 2010-11 will be Rs 12294.64 thousand if the past profit trend remains continue. With the help of least square method it can be said that the trend of profit will be on increasing trend.

Similarly to find out the expected profit for 2012-13, we have x=5

Yc = -15395.08+9229.91x5

Yc = 30754.47 thousands

The estimated profit for the fiscal year 2012-13 will be Rs30754.47 thousand if the past profit trend remains continue.

4.4 Relationship between Cost, Volume and Profit

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

Break even analysis is a key model of firms financial planning and control process. This is also term as cost volume profit analysis as it determines the relationship of cost incurred, volume of sales obtain and profit achieved thereof.

Table 4.12

Comparative Income statement of DDC

In Rs

			Fiscal Years		
Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
Incomes					
Sales Revenue	1536340564	1680353679	1800673560	2193309447	26283509971
Sundry Income	16939055	12462762	13755732	148981455	17541086
Total Income	1553279619	1692816441	1814429292	2208290902	2645892057
Expenditures					
Collection Expenses	1144708429	1497384582	1629164826	1916107145	2312063599
Processing Expenses	284171570	-	-	-	-
Selling expenses	42681441	46437352	62355205	66652247	73918539
Administrative Charge	73529349	80209132	11665206	123494625	133951778
Gratuity Expenses	53753234	16258298	55386751	73063749	55230249
Depreciation	31778505	34209863	26434380	36666382	36962464
Interest Adjustments	4663760	3614718	3213105	916235	1501770
Total Expenses	1578821540	1678113946	1904219473	2216900386	2613628402
Net Profit/loss	-25541921	14702495	-89790181	-8609484	32263655

The table 4.12 showed the net profit/ Loss for the 5 fiscal years study period after deducting other expenses. This statement showed that there was loss in the fiscal year 2005-06. In the fiscal year 2006-07 and 2007-08 there were profit of 14702495 and loss of 897900181. But again in fiscal year 2008-09 and 2009-10 there was loss of 86099484 and profit 32263655 respectively.

4.4.1 Contribution Margin of DDC

Table 4.13

Contribution Margin of DDC

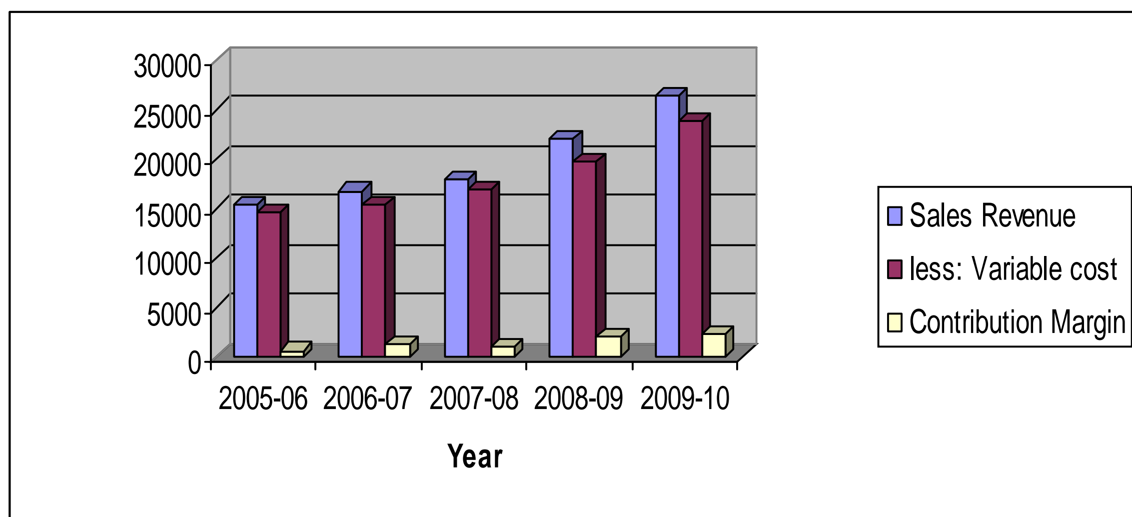
in Rs '00000'

			Fiscal Years		
Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
Incomes	-	-	-	-	-
Sales Revenue	15363.41	16803.53	18006.73	21933.09	26283.50
less: Variable cost	14715.61	15403.82	16915.20	19827.60	23859.82
Contribution Margin	647.8	1365.31	1091.53	2105.49	2423.68
CM % OF Sales Revenue	4.22%	8.12%	6.06%	9.60%	9.22%

The sales revenue and variable cost were very closer. The contribution margin was high in the fiscal year 2008-09 amounting 210549000. Where as there is less contribution margin in the fiscal year 2006/07 at 8.12 percent and decrease in 2007/08 at 6.06 percent and then after 9.60 percent and 9.22 percent in the fiscal year 2008/09 ad and 2009/10 respectively

Figure 4.10

Contribution Margin of DDC



4.4.2 Variable Cost to Total Sales Ratio

The variable cost was 95.78% in the fiscal year 2005-06 where as this decreased to 91.88% in the fiscal year 2006-07. In the fiscal year 2007-08, this raised to 93.94%. Similarly in the fiscal year 2008-09 and 2009-10 this ratio decreased to 90.40% and 90.78% respectively.

Table 4.14

Variable cost to Total Sales Ratio

In Rs '00000'

	Variable Cost	sales Revenue	VC to TR Ratio
2005/06	14715.61	15363.41	95.78
2006/07	15438.22	16803.53	91.88
2007/08	16915.20	18006.73	93.94
2008/09	19827.80	21933.09	90.40
2009/10	23859.82	26283.50	90.78

Table 4.15

Statistics of Variable cost and Total Sales

Descriptive Statistics **in Rs '00000'**

	Mean	Std. Deviation	N
VARIABLE COST	18240	3800.20	5
SALES REVENUE	19698	4464.26	5

Correlations

		VARIABLE COST
VARIABLE COST	Pearson Correlation	1
	N	5
SALES REVENUE	Pearson Correlation	0.9985
	N	5

Source: Annex 2

The mean variable cost was Rs 18240 and mean sales revenue was Rs 19698. Similarly standard deviation of variable cost for 5 year was 3800.20 where as s.d of sales revenue was 4464.26.

Another statistical tools correlation was used to analyze the degree of relationship between the Variable cost and total sales. To find out Karl Pearson's correlation showed the value of correlation coefficient lies between +1 and -1. The value is 0.9985 which showed there is positive relationship between Variable costs and total sales. This means the sales should increase with variable cost and vice versa.

4.4.3 Total Expenses to Sales revenue ratio

Total expenses to sales revenue ratio show the portion of total expenses against total sales. The table 4.15 showed the ratios of total expenses and total sales. The total expenses exceed total sales except in fiscal year 2007-08.

Table 4.16

Total expenses to Total Sales Ratio

For Fiscal year 2005-06 to 2009-10

In Rs 00000

Year	Total Expenses	Sales Revenue	Total Expenses to Sales revenue
2005/06	15788.21	15363.41	102.77
2006/07	16781.13	16803.53	99.87
2007/08	19042.19	18006.73	105.75
2008/09	22169.00	21933.09	101.08
2009/10	26136.28	26283.50	99.44

Table 4.17

Statistics of Total Expenses and Total Sales

Descriptive Statistics

in Rs 00000

	Mean	Std. Deviation	N
TOTAL EXPENSES	1998336749	133580275.20	5
TOTAL SALES	6698837444	1095088744	5

Correlations

		Total expenses	TOTAL sales
TOTAL EXPENSES	Pearson Correlation	1	0.8268
	N	5	5
TOTAL SALES	Pearson Correlation	0.8268	1
	N	5	5

Source: Annex 3

The table 4.15 showed the statistics of total expenses and total sales. Mean of total expenses was 1998336749 where as mean of total sales were 6698837444. Similarly standard deviation of total expenses was 133580275.0 compared to total sales standard deviation 10950887440.

Another statistical tools correlation is used to analyze the degree of relationship between the Total expenses and total sales. Karl Pearson's correlation lies between +1 and -1. The above table 4.15 shows the value of Karl Pearson's correlation was 0.8268 which shows there was positive relationship between total expenses and total sales. This means the sales should increase as the total expenses and vice versa.

4.4.4 Break even Analysis

Break even analysis determine the point of sales at which operating cost are just equal to revenue. This point of sales is known as break even point. It also shows the magnitude of firms operating profit or loss if sales exceed or decline below break even sales volume. Break even analysis is used as a profit planning tool by financial manager (Paudel, 2007).

Table 4.18

Calculation of BEP (in Rs)

Fiscal Year	Sales	Variable Cost	Fixed Cost	CM Ratio	BEP in Rs.
2005/06	15363.40	14715.61	1637.24	4.22%	38797.15
2006/07	16803.53	15438.23	1342.92	8.12%	16538.42
2007/08	18006.73	16919.20	966.99	6.06%	15966.93
2008/09	21933.09	19827.59	2141.40	9.60%	22306.25
2009/10	26283.50	23859.82	2276.46	9.22%	24690.45

4.5 Major Findings

The major findings of this research study based on the analysis of available data are pointed out as following.

- DDC practiced only short term planning rather than long term planning. The time covered was only one year.
- The company’s sales trend is average 14% increasing but not satisfactory as growth was fluctuating.
- The company’s collection expense is more than 85 percent share of expenses of DDC.
- The company's variable cost covers high proportion as 92% than fixed cost in total cost amount which contribute lower contribution margin.

- In DDC there was no any plan to reduce cost. There was lack of effective cost control techniques used.
- The profit trend of DDC is -0688% in average. Profit was not consistent as compared to profit, the amount of loss is very high.
- DDC has no detailed and systematic expenses plan. The fixed, variable and semi variable expenses plans are necessary elements of the profit planning control as well as CVP analysis.
- In DDC, there was no effective inventory policy. The inventory management, raw materials handling and controlling system are not effective.
- There is very closer relationship between sales and variable cost so, there was low contribution margin i.e. 4% to 9%.
- The co-relationship between variable cost and total sales is positive and high by 0.9985. So, there is positive relationship between variable cost and total sales.
- It seemed that budgeted sales are higher than actual sales. There is positive correlation coefficient for budgeted and actual sales by 0.9961.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Among Nepalese manufacturing enterprises, DDC has been taken as the representative enterprises. DDC was established in Shrawan 1, 2026 B.S. under company act 2021 B.S in the public sector as an understanding of Government of Nepal and engaged in serving Nepal through collecting milk and providing milk and milk products to all national level.

Every organization has limited resources. To utilize the limited resources in a better way, different tools and techniques have been developed. Among the various tools and techniques, cost-volume-profit analysis has proved beneficial in different aspects of managerial activities. The main objective of cost-volume-profit analysis is to help managers in over all managerial activities by providing information and helping in planning, controlling and decision-making. This acts as a strategic business partner in support of management role in decision-making.

Cost-volume-profit analysis is a supplementary tool of planning. It tells many things about the relationship between the business variables. Total variable costs are proportionate to the sales volume; whereas he total fixed costs remain unchanged within the relevant range of the output levels. Break even analysis is part of cost-volume-profit analysis which tells us about the level of sales at which revenues equal expenses and net income is zero. More precisely, it is called the break-even point. Cost-volume-profit analysis is sometimes referred to simply as break-even analysis which may be misleading because break-even analysis is just one part of the entire cost-volume-profit concept.

Therefore, the present research study has tried to analyze and examine the present practice of cost-volume-profit analysis as a tool of profit planning and control in

DDC and to identify the area where cost-volume-profit analysis can be applied to strengthen the company. It has also tried to answer the certain question stated in the statement of problem.

As per the nature of study, secondary data are used with descriptive and analytical approach. For this research study five years data from the fiscal year 2005/06 to 2009/10 has been used. Data are tabulated as per the requirement of the study.

Statistical tools like arithmetic mean, standard deviation, coefficient of variation, correlation coefficient, coefficient of determination, probable error of correlation, regression, financial tools such as ratio analysis, contribution margin etc have been used.

Literature related to this area has been reviewed which consists of book, periodical articles, government official publications and dissertation or thesis.

This study has been organized in five main chapters consisting of introduction, review of literature, research methodology, presentation and analysis of data and summary, conclusion and recommendations.

5.2 Conclusions

This thesis main aim is to study about the Profit planning of DDC. The study showed that DDC's actual achievements were always lower than the targets and the budget were not implemented effectively. There are no right forecasting tools were used. There was no clear method of segregating cost. CVP relation ship was not considered while developing sales plan.

DDC lacked proper inventory policy. This led inconsistent inventory in DDC. Propar inventory policy can make profit to the company. DDC is unable to earn reasonable amount of profit. The company is facing by -0.688% loss in average it shows company is running at a loss. Company's contribution margin is low which contribute lower profit. So, the company should minimize there variable cost. There is very closer relationship with sales volume and variable cost. It refers low

contribution margin. But least square straight line sales trend of the DDC showed the possible future actual sales will have an increasing trend. Therefore it shows that DDC can earn profit in future.

Thus Researcher can conclude that DDC is not in a good position in terms of profit. It can increase its profit volume if sales plan are properly made and it should increase the sales target are achieved as well as should focus on practice of segregating cost which help in minimizing the fixed cost which help to increase in profit margin. It should make proper inventory policy to optimize inventory cost.

5.3 Recommendations

On the basis of above analysis, findings and conclusions of the present study on DDC, it needs some suggestions to improve the application of cost-volume profit analysis as a managerial tool of profit planning for its better operation in the future. For better utilization of the limited resources and achieving goal through cutthroat competition, application of cost-volume-profit analysis can be of great help. Thus the following recommendations based on the findings of the research study are:

- DDC should develop realistic strategical (long term) plans as well as tactical (short term) plans regarding sales, production and expenses.
- Sales budget or plan serves as the key note for overall profit plan to be run effectively. All other budget depends upon sales budget. Therefore sales budget should be prepared on the realistic ground.
- Classification of expenses items as variable and fixed must be made within specific framework.
- To implement CVP analysis effectively, the concept of CVP analysis should be understood by all levels of management.
- There was no effective inventory policy, so DDC is recommended to use the tools effectively for efficient inventory management.

- DDC should consider about the product line to improve its profits. Market research on demand, supply and pricing of milk and dairy products should be carried out. This will help to identify and drop loss oriented product.
- To generate adequate sales and profit, DDC should emphasize on efficient utilization of resources.
- CVP relationship should be considered while formulating the profit plan.
- DDC should try to control fixed cost to increase profit.
- DDC should think about the ways to increase profit to sustain in long run.

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