

**SALES PLANNING IN NEPALESE PUBLIC ENTERPRISES**  
**(A CASE STUDY OF DAIRY DEVELOPMENT CORPORATION)**

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## **RECOMMENDATION**

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## ABBREVIATIONS

B.S.	:	Bikram Sambat
BEP	:	Break Even Point
DDC	:	Dairy Development Corporation
Defn.	:	Definitions
Edn.	:	Editions
F/Y	:	Fiscal Year
FAO	:	Food and Agriculture Organization
GDP	:	Gross Domestic Product
k.g	:	Kilograms
Ktm.	:	Kathmandu
Lit.	:	Liters
Ltd.	:	Limited
MPAS	:	Milk Product Association System
No.	:	Number
P.E	:	Probable Error
PEs	:	Public Enterprises
PPC	:	Profit Planning and Control
Resp.	:	Respectively
Rs.	:	Rupees

# **CHAPTER - ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

Nepal ranks as one of the world's poorest countries with per capita income as GDP per capita towards the bottoms when compared to the world. In 2009, the country's per capita income was US \$484. So, uplifting the living standard of people is difficult without proper industrialization. Industrialization takes time so for country like ours should adopt the 'agriculture' as the means of prosperity. Within the 'agriculture' field also dairy and dairy products can be the measure tools for uplifting the living standard of the people.

The principal organization for the dairy development in Nepal has the Dairy Development Corporation (DDC) establishment under the Corporation Act in 1969 or (2026 B.S). The DDC was created, as full government owned corporation under the ministry of Agriculture with the responsibility of overall development of dairy industry in Nepal.

“Processing of dairy products within the rural households and cottage type under taking has long history in Nepal. Processing methods are simple and labour intensive process is done for a number of purposes i.e. to preserve the milk to produce marketable products e.g. ghee, to produce traditional dishes which are used by the households and during festivals, livestock farming has been a traditional enterprises in Nepalese farmers and has mostly been carried on in sufficient household scale and thereby benefited them as the secondary source of income.”

The history of dairy development in the organized sector is not long. Systematic dairy development in Nepal began in 1952 when GON requested assistance from FAO of the United Nation in trying to better utilization of milk produces in the mountain region in the country.

### **1.2 Public Enterprises of Nepal**

Governments of developing countries have generally a strong urge to develop and modernize their economics at the factor place and more importantly on a rational and

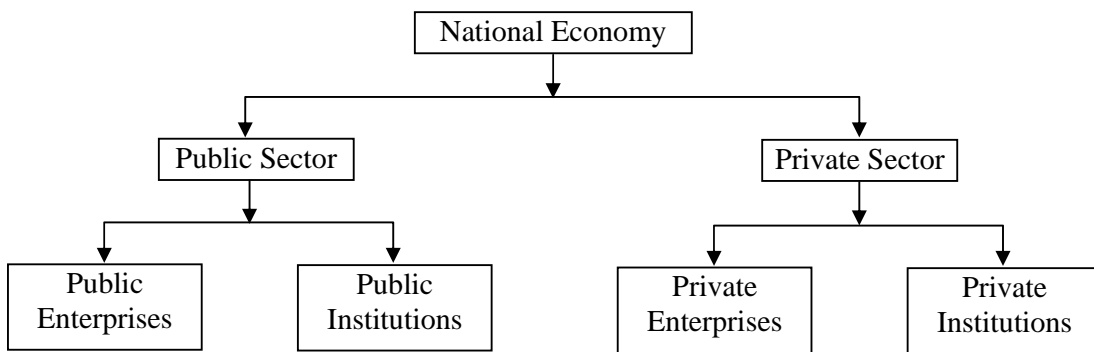
socially desired footing. Therefore, they found it necessary to take substantial initiative in promoting economic and social development through the planning and development of public sectors activities. Thus, “Public enterprises” came to be widely accepted as effective tools for accelerating the achievement of socio-economic goals.

Meaning of the term “PEs continues to remain vague and varying. It is rightly said that public enterprises is a notable for very untidy concept.” PEs general word which make very difficult reality. There is no authorities internationally accepted definition of the term public enterprises. It is each country's prerogative to draw the line between public enterprises and other government organizations and activities.

Though PE generally has legal autonomic as joint stock company as a statutory corporation as a co-operative society or as a society under the societies registration Act, it is not and essential ingredient of public enterprises (Narayan Laxmi, 1982:1).

In brief PEs is an organization which is owned by public authorities to the context of 50 percent or more, is under the top management business character and its markets its output in the shape of goods and services for a price.

In nature and scope of PEs can be conceptualized in the framework of the following diagram which attempt to represent all institutionalized activities in mixed enterprises into four segments.



### 1.2.1 Position of DDC in Public Manufacturing Enterprises

Public enterprises were established in order to prepare infrastructure service and to except to help in controlling the price situation, to create opportunities for employment, to

increase government revenues and to contribute significantly in the national development as well as to assist in the country's economic achievement, DDC is one of the public enterprises which was also established to fulfill those objectives (Leory P. Jones, 1975: 20).

The government only wholly own DDC its management and operation are also fully controlled by the government. As a matter of fact, the basic philosophy behind Corporation Act is neither to earn profit nor to run the operation in a commercial manner. The objective is to run the activities through a corporation which otherwise should have been operated by the management. It is only for the sake of continence that the corporation is created. It is almost like government whether DDC can be run as a commercial entity under the present legal set up.

The DDC is a public enterprises created with the aim to increase the milk production in the rural areas by collecting and available quality of milk. Process and distribute it to the urban population at socially acceptable prices as a commercially viable operation.

Livestock keeping is playing a major role in the total agricultural activity of the country. The contribution of this sub-sector to the gross Domestic Product (GDP) of Nepal is about 26.4 percent, which as significant as the other sub-sector of the country's agricultural system (Rastriya Samachar Samiti, Gagan Rastriya Dainik, Baisak 7, 2058, Barsa 3, Aanka 92). The contribution of milk production to the DP is 6 percent. Thus the milk production is an important activity.

Most of the people of Nepal are engaged in the agriculture. Number of disguised unemployment is high in Nepal. So, the dairy farming may be an important occupation for the people to reduce the degree of unemployment. Organized commercial dairy farming i.e. DDC can largely help the people to generate income for them and hence to raise national income.

According to the Asian development bank, due to improvement to agricultural and industrial estate, is 2000, the GDP in Nepal has increased by 6.4 percent. This increment was 4.4 percent in 1991. In the recent years also the increment is justifiable although there are many obstacles and problems being faced by the country (Central Bureau of Statistics and Agriculture Statistic Division, 2000).

Large numbers of people are unemployed in Nepal. If the country is able to increase dairy firms, it will certainly help to solve such chronic unemployment problem to some extent. DDC is closely related to agriculture where the higher portion of population of Nepal engage in agriculture it has important role to play in the economic development of Nepal.

In the year of its existence, DDC was fulfilling its objectives as an agent of rural development and supply of dairy products to the urban population but its operations were commercially, not viable and as a result losses were accumulated.

The production of milk and dairy and dairy products increased by 3.5 percent to 1048040 metric tons in FY 2001/02 compared to 1012120 metric tons in the previous FY. In the FY 2002/03, the production of milk and dairy products is expected to increase by 2.4 percent to 1048040 metric tons compared to the previous year (Economic Survey and Ministry of Finance).

**Table No. 1.1**  
**Production of Milk and Milk Products**

Year	Metric Tones
1999/2000	961.56
2000/01	1012.12
2001/02	1048.04
2002/03	1724.62
2003/04	1097.02
2004/05	1124.13
2005/06	1158.78
2006/07	1214.48
2007/08	1252.12

*Source : Agriculture Statistics Nepal. CBS and Agriculture Statistics Division*

### **1.3 Brief Introduction to Dairy Development Corporation (DDC)**

The principal organization of dairy development in Nepal has the Dairy Development Corporation (DDC) established under the corporation act in 1969. The DDC was created, as a full government opened corporation under the Ministry of Agriculture with the responsibility.

Dairy Development Board (DDB) and the Dairy Development Section (DDS) were dissolving and a Dairy Development Corporation (DDC) was constituted under the corporation's act 2021 B.S. (1964 A.D.) Government of Nepal Announced the constitution of DDC through Nepal Gazette dated 2026 (1969), Kartik 18<sup>th</sup>. The preamble says "In order to maintain the health and wealth being of the consumers and promote services in a modern, scientific and co-ordinate ways, of milk production, collection, processing conserving and marketing of milk and milk products, a dairy development corporation has constituted" DDC started functioning from 1<sup>st</sup> Shrawan 2026 B.S. (16<sup>th</sup> July, 1969) with its head office Lainchour.

The objectives of the corporation were laid as under:

- Provide a guaranteed market and fair price to milk producers.
- Supply pasteurized milk and other dairy product to urban consumers at reasonable price.
- Organize, promote and expand milk collection, production to bring self-sufficiency in milk and milk products in order to meet the local demand and substitute imports of dairy products (National Dairy Development Board, 2001:31)

In keeping with its objectives, DDC was responsible both for development and expansion of dairy industry and at the same time to operate commercially with the principle of no profit no loss. It was quite successful in this regard. The DDC began with milk processing plant Lainchour. The plant had capacity of processing 1080 liters of milk per hour. There were also three yak Cheese factories in the alpine belt under a separate scheme called Cheese Production and supply scheme (CPSS).

DDC has been collecting cow, buffalo and Yak/Chauri milk from 40 districts. Its present milk collection network has spread from Panchthar in the east, Surkhet in the West. DDC has been playing a special role in contributing to uplift the economic status of rural farmers. Thus dairying has been recognized as an effective tool for poverty collection and economic development of rural farmers. For example in the FY 2055/056. DDC had a turnover worth of Rs. 1400 million out of which Rs. 893 million directly reached the rural farmers as milk payment.

DDC provides qualitative milk and milk products to the consumer at national level. The demand of the milk is increasing day by day because of high quality and hygiene. DDC is totally owned by the government. World Food Program (WFP), Government of New Zealand USAID and Danish Government have been the major donors of the corporation. DDC could not buy all the milk offered by the farmers especially during the flush season. As a consequence, it had to impose milk holiday on certain day during the period. On the other hand, during the lean season DDC had been importing Skimmed milk powder to meet the consumer's demands. To mitigate this problem a skimmed milk powder plant was established in 1994 A.D to substitute import milk powder. Since, the FY 2055/56 B.S DDC started export of the milk to the boarder areas of India.

DDC has been producing different products. Some of the products are Pasteurized milk, Dahi (Yoghurt), Butter, Paneer, Ice-cream, Cream, Cheese, Skimmed milk powder (SMP), Dairy sweet: a) Peda, b) Lalmohan, c) Rasbari etc.

DDC has 7 milk supply scheme for milk production and distribution, which are Kathmandu Milk Supply Scheme (KMSS), Biratnagar Milk Supply Scheme (BMSS), Hetauda Milk Supply Scheme (HMSS), Pokhara Milk Supply Scheme (PMSS), Lumbini Milk Supply Scheme(LMSS), Milk Product Production and Sales Supply Scheme (MPPSS), and Madhya Pashimanchel Milk Supply Scheme(MPMSS). Out of these milk supply scheme Pokara milk Supply scheme has been privatized but the collecting procedure of milk, cooling center of milk, milk producing co-operative groups are still left so it has been considered.

#### **1.4 Statement of the Problem**

It is the known fact that Nepal is a developing and mountainous country as well as agricultural country. Agriculture is the main occupation of most of the Nepalese people. Poultry farming, fishery, beekeeping, cattle farming etc are main areas of agriculture. Most of the people in the country rely on agricultural production for their livelihood. Country's geographical feature is such that cattle farming can be promoted as one of the major economic agenda for uplifting rural economy. Cattle farming, poultry can be promoted from plain regions to high mountainous region. Currently, cattle farming are playing as important role in fulfilling basic needs of the rural areas people.



Except cattle farming, Nepal has scope on tourism sector because of its natural beauty and lots of variations in culture, religion, and tradition and geographical built of a country. In one hand population of country is increasing while the agriculture production is not enough to hold the increasing population's demand. So, cattle farming had been better sources for milk and meat, which is the basic foods for health, as food is needed for survival.

The population of Nepal is around 2,76,00,000. Most of the people lives in rural areas. But the latest trend is that the people are migrating from village areas to town areas. Milk is necessitated for every people from child to older; it is like as basic needs for human being. From the view point of health aspect milk products are important and necessary things. Therefore, the demand of milk and milk product are ever increasing. So, DDC, which was established in 2026 B.S. under 2021 Corporation Act has lots of Challenges, daily to fulfill the demands of urban areas people for milk and milk products. However due to high demand of milk products in the country the sales achievement of the organization shows the unsatisfactory position. What are the reasons or causes for poor performance about sales plan in DDC. Despite of demand is increasing year by year, the organization can not contribute for fulfillment of demand. What are the constraints for achieving the growing demand of milk products by DDC. The study try to find out the problem of poor sales achievement in DDC and also explore the causes or reasons for poor sales achievement.

### **1.5 Objectives of the Study**

The objectives of this study are to raise the practice of sales planning system and its effectiveness, applied by DDC. The specific main objectives of the study can be stated as follows.

- (i) To identify the sales planning process of DDC.
- (ii) To examine the formulation and implementing procedure of sales plan in DDC.
- (iii) To evaluate the variance between budgeted and actual sales of the DDC.
- (iv) To examine the effectiveness of sales plan in DDC.

## **1.6 Justification of the Study**

Profit planning has become an important technique in the use of managerial decision making in business enterprises. But it is not possible without the proper planning of sales. Sales planning are the major instrument, which minimizes future uncertainty, maximizes profit and optimum utilization of the resources. The main purpose of the sales planning is to provide necessary information for developing other elements of a comprehensive profit plan. Therefore this study may be useful to entrepreneurs, to decision makers, to policy makers, to further researchers.

## **1.7 Limitations of the Study**

The main limitation of the study is as follows:

- (i) This study is mainly based on the published secondary data and no attempt has been made to examine the reliability of the data. Similarly, the set of questionnaire distributed to the managerial level staffs and interview taken to related persons of central office of DDC and feedback from that has been used as primary data.
- (ii) The study is based on 7 years data from 2058/059 to 2064/065.
- (iii) Due to limited time and resource constraints analysis is made only for sales planning of DDC.
- (iv) This study is concentrated in the sales planning of DDC so it does not cover other aspects of DDC.

## **1.8 Organization of the Study**

The organization of the study has followed five separate chapters which are as follows:

### **Chapter I: Introduction**

This Chapter includes background, statement of the problem, objectives of the study, justification of the study, limitation of the study, organization of the study.

### **Chapter II: Review of Literature**

This Chapter includes the conceptual framework and literature review.

### **Chapter III: Research Methodology**

This chapter includes the research, research design, population and sample, the sampling procedure, the data gathering procedure, the statistical procedure and data analysis procedure.

### **Chapter IV: Data Presentation and Analysis**

Presentation and Analysis of data is presented in this chapter which includes managerial process analysis, sales Budgeted and achievement, sales forecast, major findings.

### **Chapter V: Summary, Conclusion and Recommendations**

This Chapter includes Summary, Conclusion and Recommendations of the research work.

## **CHAPTER -TWO**

### **REVIEW OF LITERATURE**

This chapter provides some glimpses on the literature that is available in the topic. Especially, it covers a comprehensive review of the published and unpublished worked by academicians and scholars. The purpose of the literature review is to ensure that no important variable is ignored has past been found repeatedly to have had an impact on the problem.

#### **2.1 Sales Plan is a Part of Profit Plan**

"The sales planning process is a necessary part of PPC because (a) it provides for the basic management decision about marketing, and (b) based on these decisions. It is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, most if not all of the other parts of the overall profit plan are not realistic. Therefore, if the management believes that a realistic sales plan cannot be developed; there is little justification for PPC." Sales plan or budget is the first plan of budget to be prepared. It is the 'nerve center' of the operating budget. It is starting point and backbone of the development of profit plan, without the preparation of sales plan the profit plan is incomplete and is to like as dame. Profit plan starts from after making sales budgeting. It is the first and essentials element of profit plan without preparation of sales plan profit plan can't be forwarded. Being the foundation of entire budgeting, it determines to large extent the success or failure of a budget. Unless the budget is developed with reasonable accuracy all the estimates in the operating and financial budgets will be misleading therefore, preparation of sales plan is very important to profit plan program. So, sales plan is called end and means of profit plan, which, is the sources for production budget and cash budget. The sales plan is the foundation for periodic planning in the firm because practically all other enterprises are built on it. The primary sources to be planned. The manpower requirement the production level and other important aspects depend on the volume of sales.

## **2.1.1 Goal Orientation and People Orientation**

### **Goal Orientation**

Goal Orientation both business and non-business endeavors must have objectives and goals. In business endeavor, the primary goal orientations are 1) Return on investment and 2) Contribution to the economic and social improvement of the boarder environment. Likewise, non-business endeavors have specific objectives, such as the accomplishment of a given mission within specified cost constraints. In both cases, it is essential that the mangers of the endeavors, as well as other interested parties, know the objectives and goals. Otherwise, effective environment guidance of the activities are performed are impossible. Thus, the responsibilities of management to specify and articulated goals and objectives are fundamentally identical in business and no business enterprises (Welsch et al, 1997: 2).

### **People Orientation**

The success of an enterprise-business or other organization- depends on the people associated with the enterprise. These people include both the managers and the other employee, because all of these individuals are significantly involves in the attainment of enterprise objectives. Thus, “People constitute the most critical part of management- not land, buildings, equipment or materials. Developing an effective staff, providing a positive working climate and positively motivating people determine in large measure, the success of most enterprises”.

## **2.1.2 Profit Planning and Control (PPC)**

Profit planning is one of the most important managerial tools used to plan and control business operation. “The term comprehensive profit planning and control is defines as systematic and formalized approach for performing significant phase of the management planning and control functions. Specially, it involves:

- (i) The application and application of board and long – range objectives for the enterprise.
- (ii) The specification of enterprise goals.
- (iii) A long-range profit plan developed in broad terms.

- (iv) A short-range profit plan detailed by assigned responsibilities (Division, products, projects)
- (v) A system of periodic performances report detailed by assigned responsibilities.
- (vi) Follow up procedures” (Glenn A. Welsch Ronald. W. Hilton and Paul N. Gordon, 1999: 1).

“Profit planning is an example of short-range planning. This planning focuses on improving the profit especially from particular products over a relatively short period. Therefore, as used here, it is not the same as corporate planning of cost rendition program” (Terry George, 1992: 521).

Profit planning in fact is managerial technique and a profit plan is such a written plan in which all aspects of business operations with respect to definite future periods are included. It is a formal statement of policy, plan, objective and goal established by top management in respect of some future period. Profit planning is a predetermined details plan of action developed and distributed as guide to current operation and as a partial basis for the subsequent evaluation of performance. Thus we can say that profit planning is a tool, which may be used by the management in planning the future course of actions and in controlling the actual performance.

In someway, profit planning has ultimate objective and goals assignment of responsibilities to fulfill the objectives, implementation of plan and the follow-up procedures for correction and adjustment in planning.

### **2.1.3 Long-Range and Short Range Profit Planning**

While preparing a systematic profit plan, two types profit plans are developed:

- (i) Strategic (Long-Range) Profit Plan
- (ii) Tactical (Short Range) Profit plan

Strategic (Long-Range) Profit Plan takes a time horizon of three or more than three years in future and the later for short period. A part of this plan is more or less informal as presented by tentative commitments made by the executive committee in the organizational planning season. “The long –Range plan covers all the key areas of anticipated activity sales, expenses, research and development, capital expenditure, cash, profit and return on investment” (Welsch, Hilton and Paul, 1999: 132).

The tactical (Short-Range) or operational profit plan is developed by participative by all management levels. It can actually be viewed as the first year of the strategic profit plan. It is detailed plan for the enterprise and for each of its responsibility centers. It defines the enterprise objectives to develop programmes policies and performance expectations. It involves timing that is intermediate range to short-range. It focuses on level of assigned authority and responsibility and provides “budget information” for performance report.

#### **2.1.4 Fundamentals of Profit Planning and Control**

The foundation for profit planning & control is that the management must have absolute confidence in its ability to established realistic objectives and to device efficient strategies to attain those objectives for the enterprise. Basically, CPPC offers a systematic practical and proven approach to the management process properly viewed PPC is a comprehensive system to coordinate all aspects of the management process carefully knitting together the loose end of management and operation all- inclusive concept of PPC process is frequently minimized of completely overlooked in much of the literature and discussion the subject (Welsch et al, 1998:29).

The fundamental concept of PPC includes the underlying activities or tasks that must generally be carried out to attain maximum usefulness from PPC. These fundamentals have never been confined. The concept and techniques of PPC have wide application in individual business enterprises governmental unit charitable organization and virtually all group endeavors.

#### **2.1.5 Fundamental Concept PPC**

##### **(i) The Mechanics of PPC**

Mechanics are such matter as design of budget schedules clerical methods of completing such schedule and routing computations.

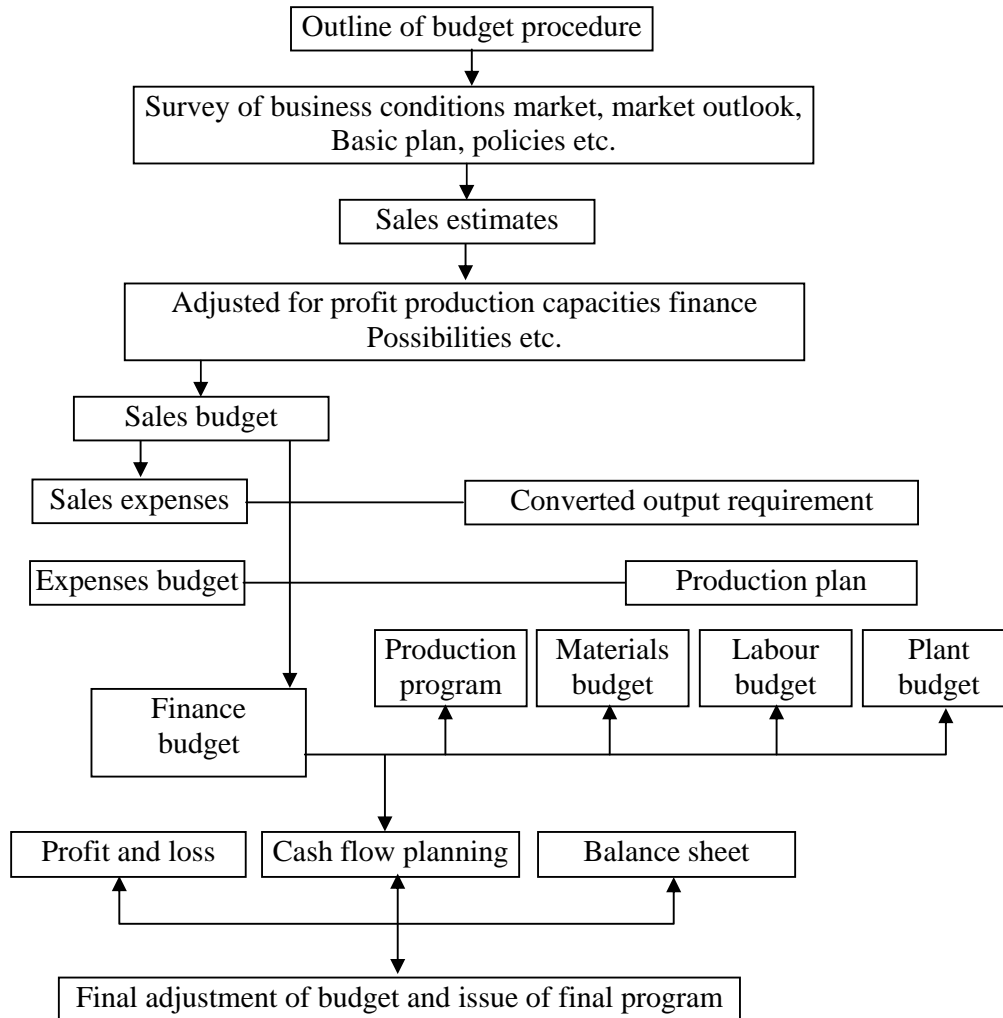
##### **(ii) The Techniques of PPC**

The techniques are special managerial and methods of developing in formation for managerial use the design making process. The techniques are made varying from the simple to the sophisticated. Some of the more commonly used techniques are methods forecasting sales volume, breakeven analysis, resource determination, cash flow analysis and variable budget procedure.

**(iii) The Fundamental of PPC**

The fundamental concern effective implementation of the management process in reasonably complex endeavors. The fundamental represent desirable management orientations activities and approaches necessary for proficient and sophisticated application of comprehensive profit planning with regarding sales plan.

**2.1.6 Outline of the Fundamental Concept of PPC**



**2.1.7 Planning and Control Process**

Planning and control process is a continuous is process of any enterprises development. It is like a cycle therefore, it is never ended. It is necessary integrates the planning, leading and controlling function of management. A PPC program includes more than the traditional idea of a periodic or Master budget. Rather it encompasses the application of a



number of related management concepts through a variety of approached techniques and sequential steps. The term comprehensive means:

- (i) The application of the broad concept of profit planning and control to all phases of operations is an enterprise and
- (ii) The application pf the total system approach

The planning process should involve periodic consistent and is depth planning so that all aspects of operations are carefully re-examined and reevaluated. It is repeated each budget year. Thus all the basic steps in the planning phase would be reviews and evaluated annually.

### **2.1.8 Component of Typical PPC program, (for a given year)**

The previous written eleven steps of PPC process are closely related them to the six PPC components are given below (Welsch et al, 1998 : 74).

#### **A. The Substantive Plan**

- (i) Broad objectives of the enterprise.
- (ii) Specific enterprise goals.
- (iii) Enterprise Strategies.
- (iv) Executive management planning instruction,(Planning premises).

#### **B. The Financial Plan**

- 1. Strategic Long-range profit plan
  - (i) Sales, cost and profit projections
  - (ii) Major projects and capital additions.
  - (iii) Cash flow and financing.
  - (iv) Personal requirements.
- 2. Tactical short-range (annual) Profit plan
  - (i) Operational Plan: Planed income statement.
    - a. Sales plan
    - b. Production (or merchandise purchase) plan.
    - c. Administrative expense budget.
    - d. Distribution expenses budget.
    - e. Appropriate-type budgets (e.g. Research and development promotion, advertising.)

- (ii) Financial- Position planed balance sheet.
  - a. Assets
  - b. Liabilities
  - c. Owner's equity
  - c. Variable expenses budgets:

Output expenses formulas.

- D. Supplementary data:  
(E.g. Cost volume profit Analysis, Ratio Analysis)
- E. Performance Reports: Each month-end and as needed.
- F. Follow up, corrective action and re-planning.

## **2.2 Sales Planning**

One of the most important elements is a budgetary control is a realistic sales estimate that is based an analysis of past sales and the present market. Let, the sales variables are often the budget component that is the most difficult to predict with reasonable precision. The demand for an entity product or services normally depends on forces and factors largely beyond the scope of management control. In most instances, this uncertainty makes expected sales that focal point of planning process (Eugene, 1986: 5-6).

The task of preparing the sales budget is usually approached from two different angles.

- (i) Judging and evaluating external influence and
- (ii) Considering internal influence: These two influences are brought together in a workable sales budget. External influences include the general trend of industrial activity, actions of competitions, government policies, cyclical phase of the national economy, price-level expectation, purchasing power of the population, population shift and charged in buying habit and modes of living. Internal influences are sales trends factory capacity new products, plant expansion, seasonal products, sales estimates and establishment of quotes for sales people and sales territories (Lawrence H. and Matz, 1998: 432).

A sales budget is a projection of sales during budget period. It lays down the sales potentials in turn of quality value period area or product etc. It shows estimate of sales either gross or net sales. It is compiled after careful analysis and estimation of sales,

Selling allowances and Selling and distribution expenses. Basically a sales budget is based on sales forecasting which the responsibility of the sales manager is. The basic information for budgeting production costs selling and distribution expenses. Basically a sales budgets is based on sales forecasting which is the responsibility of the sales manager. The basic information for budgeting production costs, Selling and administrative expenses are also provided by the sales budget: Opening inventory of finished Goods + Production units (planned) = Total unit available closing stock of finished Goods = Planned of actual sales (Jhalak Ram, 2002:67).

Sales Plan is the starting point in the preparation of comprehensive profit and control. All the other plans and budgets are dependent upon the sales budget. The budget is usually presented in both units and dollars of the sales revenues or sales volume. The preparation of sales plan is based upon the sales forecast. A variety of methods are used to forecast the sales for the planning period (Holmes, Neir and Donald, 1999: 687).

**The primary purposes of sales planning are:**

- (i) To reduce uncertainty about future revenue.
- (ii) To incorporate management judgments and decisions into the planning process (eg. in the marketing plan)
- (iii) To provide necessary information for developing other element of a comprehensive profit planned.
- (iv) To facilitate management control sales activities

A comprehensive sales plan includes two separate but related plans. The strategic and tactical sales plan. A comprehensive sales plan in corporate such managerial decision as objective, goal, strategies and premises. These translate into planning decision about planned volume (unit or jobs) of goods and services, prices, promotion and Selling efforts. In harmony with the comprehensive profit plan, both strategic long-term and tactical short term sales plan must be developed. Thus the usual case is a 5 or 10 years for strategic sales plan and a one year for tactical sales plan (Welsh et al, 1998:172-173).

Comprehensive sales planning includes the following compartment: Management guidelines, sales forecast and other relevant information, and plans for marketing advertising and distribution expenses. It is the foundation of profit plan.

### **2.2.1 Control of Sales and Related Expenses**

The development process and top management committee to a realistic sales plan provides the foundation for effective control of sales effort and distribution expenses, we have emphasized that the several components of the sales plan should specify management responsibilities because this is the basis for effective control.

Control is the sales function should be viewed as a comprehensive activity encompassing sales volumes, sales revenues, and promotion costs and distribution expenses. Effective control requires that both sales volume and distribution expenses be viewed as one problem rather than two separate and diverse issues. The sales plan gives the goals that are to be attained but the sales function. The top marketing executive has overall responsibility for control of the sales activities. Normally sales quotes for sales person should be consistent with the sales plan. Although in some cases, somewhat below realistic expectations however, in such case the sales goals, expenses budgets, and other objectives include in the sales plan and should be realistic expectation control in the sales function, as in all other functions is attained by management action (Welsch et al, 1998:172-173).

The sales goals (Volume and Dollar (Rs.) revenues), promotion plan (planned expenditure), and distribution activities (distribution expenses) are basic goals. These are relatively broad goals, which suggest the need for numerous short-term and specific standards as fact of the total control effort of the management. Example of specific standards that may be used for sales control purposes are:

- (i) Number of calls per period per sales person.
- (ii) Number of new customers.
- (iii) Number of new qualified prospects,
- (iv) Dollar of direct Selling expenses per sales person.
- (v) Number of order not honored.
- (vi) Number of orders or calls made.
- (vii) Dollars sales quotes per sales person per period.
- (viii) Average size of orders.
- (ix) Selling expenses as a percentage of sales Dollars.

Effective control of selling activities also requires periodic performance report by responsibility that includes both sales and expenses. Performance report should normally be prepared and distributed on a monthly basis however, certain critical sales activities (e.g. sales made) the marketing function should be prepared by the financial executives staff and distributed soon after the end of the period. The performance report should be comprehensive for each responsibility center e.g. the sales district performance report should show.

- (i) Performance is generating sales revenue.
- (ii) Performance is controlling district distribution expenses and
- (iii) Performance of other related activities under the direct control of the district sales manager. The performance report should compare actual result with planned result and report the variances. Normally, the report should show both the period just ended and cumulative to date performance reports should be consistent with the pyramiding principle. That is the performance report for the lowest level of management should report specific revenues and expenses by detailed classifications (product in the case of sales and nature in the case of expenses) for each higher level of management the pyramiding effect requires summary performance reports that show totals by responsibility center.

### **2.2.2 Sales Planning Compared with Forecasting**

Sales planning and forecasting are confused. Although related, they are distinctly different purposes. A forecast is not a plan rather it is a statement or a qualified assessment of future conditions about a particular subject (e.g. sales revenue) based on one or more licit assumptions. A forecast should always state the assumption upon which it is based. A forecast should be viewed as only one input into the development of a sales plan. The management of a company may accept, modify, or reject the forecast. In contrast, a sales plan incorporates management decision about such related items as sales volume, prices, sales efforts, production and financing.

A sales forecast is converted to a sales plan when management has brought to bear management judgment, planned strategies, commitment of resources, and the managerial commitment to aggressive action to plan the sales goal. In contrast, sales forecasting is a technical staff function.

It is important to make a distinction between the sales forecast and sales plan primarily because the internal technical staff should not be expected or permitted to make the fundamental management decision and judgments implicit in every sales plan. Moreover, the influence of management action on sales potentials is difficult to qualify for sales forecasting, therefore, the elements of management experience and judgments must hold the sales plan. Another reason for identifying sales forecasting as a only one step in sales planning is that sales forecasts are conditional. They normally must be as prepared prior to management decision or plan in such areas as plant expansion, price changes, promotional program, production scheduling, expansion or distribution of making activities and other resource commitments. The initial forecast and theses should usually be more than one to indicate probable sales under various alternative assumptions are in important source of information in the development of management strategies and resources commitments (Welsch et al, 1992 : 172-173).

One author emphasized the confusion between forecasting and planning as follows: When the leader of an organization says that he would like a forecast, what he often means is that he wants a plan. He wants to make something happen, and because this plan as a Budgeted for people in his organization (Armstrong J. Scott, 1978: 5).

The short-term sales forecast provides the basis for the current year sales plan and finishes goods inventory plan. At the same time, the influence of the long-term sales forecast is reflected in the capital expenditure plan and is the finished goods inventory plan. The long-term sales forecast serves as what might be called the anchored of the finished goods inventory plan since inventory not the end of this year is the beginning inventory for next year business. It is necessarily influences by the long term forecast. The long-term sales forecast also provides the basis for developing, in rough outline, the capital expenditure budget. The short-term sales forecast and resulting sales plan look in two direction. The look outside the company to define the sales budget required obtaining sales income and they look inside the company to serve as the basis for the production plan. The planning is not complete until it meets the requirement in both directions (Thomas, 1996:149).

### 2.2.3 Components of a Comprehensive Sales Plan

Component	Strategies	Tactical plan
1. Management policies and assumption	Board and general	Detailed and specific for the year.
2. Marketing plan (sales and services revenues)	Annual amount, major groups	Detailed by product and responsibility.
3. Advertising and promotion plan	General, by year	Detailed and specific for the year.
4. Distribution (Selling) expenses plan	Total fixed and total variable expenses by year	Fixed and variable expenses by months and by responsibility.

### 2.2.4 Management Policies and Assumptions

- A. The substantive plan: The substantive plan is represented by the
- Board objectives of the enterprises.
  - Specific enterprise goal.
  - Enterprise strategies.
  - Executive Management planning instructions (Planning Premises.)

#### 2.2.4.1 Development of the Broad Objectives of the Enterprise

The statement of board objectives should express enterprise the mission, vision, and ethical character of the enterprise. Its purpose is to provide enterprise identity, continuity of Purpose and definition. One research study listed the purpose of the statement essentially as follows.

- (i) To define the purpose of the company.
- (ii) To clarify the philosophy-character of the company.
- (iii) To create a particular climate within the business.
- (iv) To set down the guide for managers so that the decision they make will reflect the best interest of the business with fairness and justice to those concern.

Development of the board objectives of the enterprise is a responsibility of executive management. Based on a realistic evaluation of the relevant variables and an assessment

of the strengths and weakness of the organization, executive management can specify or restate this phase of the PPC process.

#### **2.2.4.2 Development of Specific Goals for the Enterprise**

The purpose of this step is to bring the statement of board objectives into sharp focus statement to more from the health of general information to the confines of internal management. This component of profit planning program details specific short range and long range goals for the enterprise. This step provides definite and measurable goals for the enterprise and for each of the major subdivision for both the strategic long range profit plan and for the tactical short range profit plan annual. The statement of specific goals shows define such operation goal goats as expansion 7 or contraction of product and service lines, geographic areas, share of the market by major product service lines, grown trends, production goals, profit margins and return investment. These specific goals in large measure are quantified and specified for each major subdivision of the enterprise (Deba Raj Poudel, 2001).

#### **2.2.4.3 Development and Evaluation of Enterprise Strategies**

The company strategies are the basic thrusts, ways and tactics that will be based to attain planned objectives and goals. A particular strategy may be short term or long term, the purpose of developing and disseminating enterprise strategies is to find the best alternative for attaining the planned broad objectives and specific goals strategies focus on "How" therefore, they one line a plan of action for the enterprise. Executive management must be creative and directly involved in the development of new strategies and in the addition of currently on going strategy in harmony with the relevant variables with which management must cope. In the development of basic strategies for the enterprise, executive management must focus on identification of the critical areas that influences the ling-range success of the enterprise. Critical areas should be pinpointed through evaluation of relevant variables. Here are some actual examples of basic strategies.

- (i) Increase long term market Penetration by using technology to develop new product & improve current proudest.
- (ii) Emphasize product quality and price for the top of the market.



- (iii) Expand marketing to all states in the USA. The company will not enter foreign markets in the foreseeable future.
- (iv) Market with low price to expand Volume (Units)
- (v) Use both institutional and local advertising program to build market share.
- (vi) Improve employee morale and productivity by initiating a behaviour management program.

#### **2.2.4.4 Preparation of Planning Premises**

Planning premises explain the broad objectives enterprises goals, enterprises strategies, and any other executive management instruction needed to develop the strategic and tactical profit plans. Planning premises, issues by the top management communicate the planning foundation that is necessary for the participation of all levels of management in the development of the strategic and tactical profit plan for the up coming but get Yr. executive leadership is fundamental in developing and articulating this planning foundation, including the formation of relevant strategies consequently at this point in the planning process, the foundation has been established to articulate the broad and specific objectives of the enterprises and strategies that facilitated their attainment.

#### **2.2.5 Marketing Plan**

B. The Financial plan: The financial plan is represented by the

- (i) Strategic long-term profit plan
  - a. Sales, cost and profit projections.
  - b. Major projects and capital additions.
  - c. Cash flow and financing
  - d. Personal requirement.
- (ii) Tactical short-range (annual) Profit plan
  - a. Operating Plan

Planned income statement:

- Sales Plan
- Production or Merchandise Purchase Plan
- Administrative Expenses Budget

The process of developing a realistic sales plan should be unique to each company because of the company's characteristics its product its distribution channel the competence of its marketing group. For different participative approaches sales force composite (Maximum Participation) is widely use.

### **2.2.6 Sales Force Composite**

This approach emphasizes the judgment and executive of the sales force because of provides for a series evaluation and approval. A high level of participation, form the bottom up, is emphasized. The approach is limited primarily to tactical short-term sales planning. It can be outlines as follows:

- (i) The home sales office provides districts sales offices with a record of previous sales and any new or revised managerial policies that are relevant to the sales districts in marketing sales estimates for the planning period. Usually, the historical sales data are listed o a started from the provide space to record the estimate sales.
- (ii) Sales person are requested to fill in their estimate bases on the historical data and their knowledge of the particular territory and customers sales person are usually asked to base their estimate on current economic condition. When a sales person provides dollar estimate as well as units, the current Selling prices are usually applied.
- (iii) Estimate made by the sales persons are reviewed by the district sales manager. The form previously mentioned provides space or revision of each sales person's estimate the district manager. Each district sales manager to the top sales executive transmits the two estimates by a specified date.
- (iv) The various district estimates are reviewed and revised by the top sales executives significant revision should be discussed with the district sales managers concerned. The top sales executives may also convert the quantity estimate to dollar estimates by applying unit selling prices consistent with the revised managerial pricing policies. The sales executives working in co-operation with the company economist or with others, who have responsibility for appraising the

general economic outlook, adjust the sales estimates for these factors. Because general economic conditions can effect, the sales potential markedly serious consideration must be given to this important factors in developing the sales plan.

- (v) The tentative sales plan is then presented to the executive committee and to the president for consideration and tentative approval. At this level, the results of steps 2 and 3 are considered and may result in revision. The deliberations at this level should be primarily concerned about the soundness of the unit and dollar estimates and may result in:
  - a. Tentative approval.
  - b. Tentative approval with certain changes or.
  - c. Instruction for a complete or partial reconsideration of the sales potentials.The sales plan is also judged by whether it is within the capacities of the company
- (vi) After tentative approval, copies of the tentative sales plan are distributed to the managers other functional sub-division so that other planning activities can be stated. As the overall profit plan is developed, it may be necessary to reconsider the tentative sales plan in some respects. This balancing of consideration, and the resulting revision in the profit plan as it is being developed, should provide a realistic plan of operation for the company.
- (vii) The final plan is distributed through the sales function. It is then the basis for sales quotas and day by day planning in sales activities. In this approach, the promotion, advertising and distribution expenses components are concurrently developed during the process, as out lines above for the total marketing plan.

### **2.2.7 Advertising and Promotion Plan/Distribution (Selling) Expenses**

- Production (or merchandise purchase) plan.
- Administrative expense budget.
- Distribution expense budget.
- Approval type budget. (eg. Research and development, promotion, advertising)

Sales division Manager Composite: This approach emphasizes the responsibilities of the district or product sales managers rather than the individual sales person. This approach is

commonly used for short-term sales planning. It operates in a manner almost identical with that outlined above for the sales force composite approach except that the initial sales estimates are prepared by the sales managers rather than by the sales persons. Thus method is widely used by companies of all sizes.

A variation of this approach is based on an informal survey of the principal customers of the company. Under this approach sales are estimated on the basis of reports prepared by special company representatives who contact customers for the primary purpose of evaluating their future needs. From the sales forecasts available and the information gathered by special representatives and interpreted through their personal observation and Judgment, initial sales estimated for each geographical sales division or product is developed. These estimates are hence adjusted to take into account basic information that the higher sales manager has about such factors as expected economic conditions, population trends, purchasing power, and other conditions that may affect the market. In addition consideration should be given to sales of the last year or two and to stock holdover on the part of customer outlets. This method is useful in situations where the number of customers is limited.

### **2.2.8 Planning Distribution (Selling) Expenses**

Distribution expenses include all costs related to Selling distribution and delivery of products to customers. In many companies this cost is significant percentage of expenses careful planning of such expenses effect the profit potential of the form.

Two primary aspects of planning distribution expenses are as follows:

- (i) Planning and distribution: In the development of the tactical profit plan, it is essential that a favourable "Economic Balance" be achieved between sales effort (Expenses) and sales result (Revenue).
- (ii) Control of distribution Expenses: A circle from planning consideration, it is important that serious effort be given to controlling distribution expenses. Control is especially important, since (a) distribution expenses are frequently a significant portion of total expenses and (b) both sales management and sales personal trend to view such expenses lightly, in some cases extravagantly, such as entertainment

expenditures. Distribution expenses control involves the same principles of control as manufacturing overhead. Control must be built around the concepts of (a) responsibility centers and (b) expenses objectives.

Fundamentally the top marketing executive has the direct responsibility for planning the optimum economic balance economic (for profit potential) between (1) the sales budget (2) the advertising budget and (3) the distribution expenses budget. Therefore, profit Planning and control views, advertising and distribution expenses as one basic problem rather than as three separate problems. This view is logical because of the interrelationships between them. The sales budget rests solidly upon the promotional program. The amount of expenditure to get a given amount of sales revenue is limited. The practice of some companies of starting with a sales goal, then budgeting a fixed percentage of those revenues of sales overhead, another fixed percentages for direct marketing expenses, and still another fixed percentage for advertising is not a positive management approach to a serious planning problem. In contrast the sales executives in well managed companies, working as a group, develop the marketing and marketing promotional, and distribution expenses plans simultaneously. Next, the expenditure essential to carryout the promotional, marketing, a distribution phase planned. These expense estimates then become as important part of the input data for the profit plan. Although practice various, these decision input are separately included in (1) the promotion and advertising plan and (2) the budget of selling expenses.

Distribution expenses include two major types: 1) home-office expenses and 2) field expenses. From the planning and control point of view, these expenses must be planned by responsibility center. In some cases, the planning structure should follow the basis on which the sales effort is organized. The concepts of controllable versus non controllable cost fixed versus variable costs and itemization by types of expenditure should be in planning and controlling distribution expenses.

### **2.2.9 Preparing Distribution (Selling) Expenses Budgets**

Distribution expenses are not product costs and are not allocated to specific products. A separate distribution expenses plan should be developed for each responsibility center in the distribution function. Typically this would encompass "Home-Office" center and "Field" Center. The top marketing executive has the overall responsibility for developing

the distribution expenses plans or budgets. Following the principal of participation the management of each responsibility center should be assigned direct responsibility for that department's distribution expenses plan. Thus, the promotion manager should be responsible for developing the promotion plan, as the field sales managers should be responsible for developing both their marketing plans and their distribution expenses budget. The distribution expenses budgets should separately identify controllable and non-controllable expenses, and these budgets should be detailed by interim time period. The distributing expenses budgets prepared by the sales managers should be on a planned volume of activity or output. Usually the preferable activity base for the various responsibility centers in the distribution function is sales dollars (Welsch et al, 1999 : 314-315).

Various approaches are used to determine the promotion and advertising appropriation. The more commonly used approaches can be characterized as (a) arbitrary appropriation (b) all-available funds (c) competitive party (d) Percentage of sales (e) fixed per unit (f) previous years profits (g) Return on investment and (h) the task methods. The promotion and advertising budget should be the direct responsibility of the advertising manager. The detailed promotion budget should be presented to the committee along with the sales budget. These two plans should be approved or disapproved as a unit. In this way, the budget department receives red-tailed and approved promotion budget for incorporation into the overall profit plan.

#### **2.2.10 Planning Administrative Expenses**

Administrative expenses included those expenses other than manufacturing and distribution. They are incurred in the responsibility centers that provide supervision of and service to all functions of the enterprise, rather than in the performance of any one function. Because a large portion of administrative expenses is fixed rather than variable, the notion persists that they cannot be controlled. Aside from certain top management salaries, most administrative expenses are determined by management decision. It is common to find administrative expenses are determined by management decision. It is common to find administrative expenses "top heavy" when measured by the volume of business done. In recent years some informed observers have expressed the opinion that a developing characteristic of industry in the United States is the relative high cost of administration. These expenses, along with, labour costs, have frequently made it difficult

to price products competitively in the international markets. Market administrative expenses are closed to top management; therefore, there is strong tendency to overlook their magnitude and effect on profits. Each administrative expense should be directly identified with the responsibility center, and the center manager should be responsible for planning and controlling the expenses. This fundamental of expenses control is especially important for administrative costs because there is often a failure to pinpoint responsibility for expenses of a general nature. For this and other reasons, many companies have found it helpful to apply the fixed variable expense concept to administrative expenses. In such cases, the variable expenses are usually related to total sales dollars.

### **2.3 Review of Previous Research Work**

The previous research studies helps to provide the foundation to the present study. The purpose of literature review is thus to find out what research studies have been conducted in one's chosen field of study and what remains to be done. In this study has been included those study which related to DDC from various research but very few dissertation have been submitted to this fields of profit planning of Nepalese public enterprises with their objective, findings of Nepalese public enterprises with their objectives, findings conclusion and recommendations which are as follows:

**Dumre, Kamal Prasad (1997)**, has submitted a research about profit planning practices in Nepalese public enterprises. For this study "Dairy Development Corporation" a public enterprises has been taken into sample. He has tried to answer of certain questions as well as practices of profit planning and mainly concern with DDC PEs and examine that is what these PEs is applying comprehensive profit planning in DDC was highlight the current practice of profit planning in Nepalese public enterprises.

The specific objectives of his research work were.

- (i) To describe the scenario of DDC in Nepal from its inception to the present study.
- (ii) To analyze statistics on DDC to identify trends over time in such variable as levels of output (Volume and value) prices costs of production of output (Cow and Buffalo) profitability.
- (iii) To analyze the various functional budgets adopted in the DDC.
- (iv) To analyze the trend of milk and milk products, collection, production and sales.

- (v) To examine the practice and effectiveness of profit planning in DDC.
- (vi) To evaluate the variance between budgeted and actual of the enterprise.
- (vii) Based on the finding of the analysis provide the suggestion and recommendations for improving profit plan.

Dumre has pointed out various findings based on the analysis of data and information and information few major findings of the conclusion of the study are as follows.

- (i) In Nepalese manufacturing PEs goals and objectives are written but are not adequate for the development of enterprise without goals and objectives there is no foundation for planning. Without planning there is not fulfillment of goals and objectives.
- (ii) To achieve the basic objectives DDC has not been clearly define its main objectives in annual goal or Budgeted/ there is no define such operational goal as expansion and contraction of product line geographic areas, share of market, growth trends, profit margin and return on investment all the departmental goals and budgeted are fixed in paper but not in action.
- (iii) In Nepalese manufacturing PEs plan and is prepared on adhoc basis, which is also applicable, in case of DDC. Without analysis of the environment, the objectives are set by the DDC, which are not suitable or appropriate.
- (iv) Sale achievement is too below that sales Budgeted. Past trends of sales plan and achievement are not efficient in forecasting the sales diary products because the increase of demands may affect by various causes. This also signals that sales plan does not made by considering all components affecting sales.
- (v) The comparative study of production plan and sales shows that the DDC is unable to forecast its future satisfactory and there is no details analysis of market situation when planning.
- (vi) The milk payment system to farmer is based on fat percentage, cow milk, which has low percentage of fat as compared to buffalo milk; DDC has separate pricing system for cow milk.



- (vii) Due to seasonal fluctuation in milk collection, it has recombined and reconstitute with imported powder milk heavily during lean period starting Feb. up to July to keep up demand of milk and milk products. The surplus milk in one project is delivered to other projects for balancing the supply and demand portion in flush as well as in lean season.
- (viii) DDC has lack budgeting experts, skilled planners and entrepreneurship, plan are formulated on additional adios basis an PEs are not appeared on commercial basis planning department of DDC not adequate authority to decide and create new ideas to formulate various plans.
- (ix) Least square straight line sales trend of DDC shows that sales will be high in future if present effort is frequently being improved.
- (x) The amount of profit earned by DDC is not satisfactory. It is unable to earn reasonable amount of profit. There is no proper planning of cost control mechanism and performance reporting and there is no also the system of reward and punishment.
- (xi) In DDC there is no details analysis about its products the top management of DDC neglects about product line consideration. There is no plan to drop the loss leader product. There is no clear product contribution on profit or in fulfilling the establishment objectives. The reason of failure to meet profit Budgeted by DDC is its inability to product line consideration.
- (xii) DDC is seriously suffering from excessive fixed costs and non-manufacturing expenses. But this corporation has not any effective cost reduction program.
- (xiii) DDC has not a practice of analyzing the variance. So the management of this corporation is not conscious to rethink about the cause of variance. There is not single department of manager is made uncountable for significant variance.
- (xiv) The reporting and management information system have not been accepted and used for the purpose of controlling performance and this aspect has been further controlling performance and this aspect has been further complicated due to absence of any scientific criteria or standard to compare the performance with.

- (xv) In DDC the internal resources could not finance the expansion and growth of the enterprise, and DDC is more and more dependent upon the external resources. In short faulty financing and investment decisions and under utilization of fixed assets have been the factors responsible for the poor profitability of DDC.
- (xvi) Based on the major findings of the study of profit planning in DDC, Mr. Dumre has been recommended some suggestions.

**Pahari, Prakash (2000)**, has submitted a research about “Profit Planning of dairy Development Corporation”. The main objective of present study is to examine the technique or approaches of comprehensive profit planning system apply by DDC and to the achievement of planning. The special objectives are as follows;

- To examine the present profit planning premises adopted by DDC.
- To analyze the various functional budgets that is prepared by DDC.
- To evaluate the variance between budgeted and actual achievement of the enterprises.
- To sketch the trends of profit and loss of DDC.
- To provide the suggestions and recommendations for improving the profit planning.

For accomplishing the above stated objectives Pahari has taken a time period for 5 years from F/Y 2051/52 to 2055/56. Data were taken from secondary as well as primary. Various statistical tools have been used to analyze the data. His study pointed various findings based on the analysis of data and information few major findings of the conclusion of the study are as follows:

- (i) DDC has planned only short terms plan rather than long-term planning. The time covered only for one year.
- (ii) DDC has collected milk by only 398 districts and distributed their products only a few urban cities.
- (iii) The collection, production and sales of milk products have smoothly increasing trends.
- (iv) DDC has not able to grant the loan to the farmer's requirement.
- (v) DDC has not collected all the milk offered by the farmer's especially during the flush season. On the other hand, it has purchase skimmed milk powder from foreign countries during the lean period.

- (vi) DDC has not tried to adopt the new technology for the improvement of quality of products.
- (vii) There is not separate planning department and there are no planning experts, so that planning is made only on adhoc basis.
- (viii) A systematic flow plan hasn't prepared.
- (ix) The corporation has not prepared the periodic performances report.
- (x) The top-level executives are only involves in planning and decision making task and lower level participation is not encourages.
- (xi) There is no performance of reporting, rewarded and punishment system and completely ignored the variance analysis.
- (xii) DDC has not plan to evaluate the profitability of each product separately. It is not able to drop the less leader products. There is not clear record products contribution on profit.
- (xiii) The pricing policy of the corporation is not scientific and the government directly interfere to the price of raw milk and milk products.
- (xiv) There is not proper co-ordination between collection, production, inventory and sales department. Due to the above causes sometime the supply is lower than demand and sometimes they destroy their products.
- (xv) The corporation has not been trying to meet BEP, in fact the actual sales is lower than break even sales.

**Thapaliya, Tilak Bahadur (2001)** has submitted a research about 'Comprehensive Budgeting in Manufacturing Enterprises'. For this study Dairy Development Corporation a public enterprise has been taken into sample. The present study highlights the application of detailed and systematic approach of profit planning and analysis the effectiveness, problems and solution of the problems in prospects of DDC.

A research work conducted by Tilak Bahadur Thapalia on “A study of DDC” has following objectives:

- To analyze the marketing (Sales) plan.
- To evaluate the financial performance of DDC.
- To trace out a practice of profit planning process adopted in DDC .
- To point out the suggestions and recommendation for improving profit plan.

Thapaliya has pointed out various findings based on the analysis of data and information few major findings of the study are as follows:

- (i) The management of DDC applied annual sales and production budget. There is a substantial gap between sales Budgeted in planning and achievement each year.
- (ii) Objectives of DDC are not clear and measurable. Top-level management executive are only involve in planning and decision.
- (iii) DDC.s sales are increasing trend. It is lacking of autonomous suffering from over staffing and corruption, lack of moral and motivation in employees.
- (iv) DDC should try to avoid losses of milk and quality of milk while collecting the milk through MPAS and MPCs.
- (v) DDC should focus on the milk products market. It should think to increase the market of the other milk market to subsidize the loss incurred through Selling of the market.
- (vi) Purchasing price of milk set by government is accordance with the recommendation of NDDDB. Price of t eh other products are set by DDC.
- (vii) There is poor policy as to sales, production, and inventory and material budgets. Attention towards cost structure and control programmer is not existed.
- (viii) There is not complete and comprehensive budgeting system. DDC does not prepare the long-term strategic profit plan but prepares a short- term plan which is referred as budget the time period covered is one year generally detailed by time.
- (ix) There is not intra and inter department co-ordination and lack of co-ordination with other concerned authorities.
- (x) DDC does not fix the Budgeted for specific goal for the budgeted period eg. Growth objective, capacity utilization, return on capital are not Budgeted to achieve some specified level. DDC has not adequately considered controllable and non-controllable variables affecting it.

**Poudel, Surendra Raj (2006)**, has submitted a research about Sales Planning in Dairy Development Project, Pokhara Branch'. The main objective of his study is to examine the managerial process of DDC, Pokhara and to examine the effectiveness of sales planning. The special objectives area as follows:

- To examine the formulation and implementing procedure of sales plan DDP, Pokhara.

- To identify the managerial process of DDP, Pokhara.
- To suggest and recommend the systematic sales plan for DDP, Pokhara.

His study pointed out various finding bases on sales analysis of data and information, major findings of the conclusion of the study are as follows:

- (i) To achieve the basic objectives, DDC has not been clearly defining its main objectives in annual goal or Budgeted.
- (ii) DDC has not followed participate management, even middle level of management or not participated in policy making.
- (iii) In Nepalese manufacturing Public Enterprises plan are prepared on adhoc basic, which is also applicable in case of DDC, Pokhara. Without the analysis of environment the objectives are set by the DDC, which are not suitable for appropriate.
- (iv) The board of directors is the powerful body of any enterprises which handles the overall activities. In this project, it has interfered in day to day activities and high interfere in long term policies.
- (v) Research and development and growth of sales a e still not are Budgeted.
- (vi) Sale plan is a primary of profit planning other planning depends upon sales plan but DDP, Pokhara depends or production plan.
- (vii) The project has no prepared any plan to encourage the milk producer. There is conflict between project and milk producer farmers as well other milk collecting co-operation agencies. Farmers are not satisfied the mark price of milk.
- (viii) There is only annual Budgeted is supplied by the top management for major department. There are no details and formal guidelines to the lower level management or departmental manager for the purpose of developing profit plan which also seen in DDP, Pokhara.

- (ix) The DDP, Pokhara is mainly considerable to “expending and satisfaction of Consumer” by its dairy products but not seriously think about the research and development and growth of sales due to lack of budget.
- (x) The planned as actual data can be compared with the help of performance report. The project has not prepared such performance report continuously by the analysis it is found that the dairy products cheese is very bad punier is better other products are goods.
- (xi) The project is distributing its products to the consumers through 160 sales booth, 1 sale shop and 4 dealers and also through different dairy producing co-operative limited.
- (xii) One of the important reasons of failure to achieve the establishment objectives of the Nepalese PEs is lack of two-way communication system, which is equally application is this project also.

**Shrestha, Lokendra Narayan (2007)**, has submitted a research about comprehensive budgeting process in public enterprises of Nepal. For this study Dairy Development Corporation, a public enterprise has been taken into sample. The basic objective of this research has been to analyze the sales and promotion budgeting in DDC. The special objectives are as follows:

- To analyze the budgeting system of DDC.
- To analyze the profit planning process of DDC.
- To evaluate the financial performance of DDC.
- To interpret the trend of P/L.
- To provide valuable suggestions and recommendation for improvement of the planning system in DDC.

The period selected for this is for only seven years i.e. from F/Y 2053/054 to 2061/62. Data were taken from primary source as well as secondary. Various statistical tools have been used to analyze the data. Mr. Shrestha has pointed out various findings based on the

analysis of data and information few major findings of the conclusion of the study are as follows.

- (i) DDC has not practice of variance analysis.
- (ii) The actual sales are lower than BE sales on research period that means it has not considered BEP.
- (iii) DDC has been suffering the political pressure on employee selection. Almost employees are appointed by the government directly rather than evaluation of candidate's ability.
- (iv) DDC has not separate planning department and planning expert.
- (v) DDC has not collected all milks offered by farmers. It has not able to grant the loan to the farmer's requirement.
- (vi) The gap between actual production and actual sales is high.
- (vii) Only top level executives are involved in planning and decision-making task and lower level participation is not encouraged.
- (viii) There is no performance reporting system, so that reward and punishment would be given.
- (ix) A systematic cash flow plan has not been prepared.
- (x) There is poor policy as to sales , production, inventory and materials budgets, attention towards cost structure and control programmers is not existed.

## **2.4 Research Gap**

By the study and analysis of the previous research work it is found that the objectives of the DDC are assigned by Government of Nepal as well as there is not adequate co-ordination and realization of objectives between the different level of managers. The communicating system among the different level managers is very weak. The Government of Nepal taken the authority in every activities of the corporation, less interfere in monitoring and evaluating, punishment and rewarding system according to their performance is negligible. The planning system is in traditional way, there is not adequate study about external and internal relevant factors, not tried to adopt the new technology for the improvement of quality of products, it has not plan to evaluate the profitability of each product separately. There is not clear record of each product contribution on profit. There is not complete and comprehensives budgeting system.

There is little practice of profit planning so must be necessary to practice the comprehensive profit planning and control.

First of all communication system of DDC will be strong and make good coordination of different level of managers. It will be improved the quality of each product. This thesis includes primary as well as secondary data for the propose study. Previous researcher had not done the primary analysis of sales planning clearly record of each product separately. This research provides clear information about problems of sales planning.



## **CHAPTER - THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The basic objectives of this study is to highlight the degree of application of profit planning concept of manufacturing public enterprises with respect to different plans or budgets, especially for sales plan. In order to attain the objectives maintained in this research study, the following methodology have been employed.

#### **3.2 Research Design**

A research without a pre-drawn plan is like an ocean voyage without Mariners compass. So, the use of research design guides to a study to proceed in the right direction. The research work has followed historical as well as descriptive research design to analyze and to interpret the collected data and information. The present work is related with the qualitative (Managerial planning Process) and quantitative plans and account of DDC. So, analytical approach has been adopted. The qualitative aspect of research, such as effectiveness of profit planning process for sales, view of top personal of DDC and the theoretical prescription are explained in words where necessary.

#### **3.3 The Population and Sample**

The research work is related with sales planning aspect of dairy development corporation. So the total present number of public enterprises in Nepal is the population of this study. Due to various constraints, like time, resources, etc the researcher has conveniently selected only one PE for the purpose of the research work, which is DDC.

#### **3.4 Period Covered**

Profit planning has two dimensions long-range and short-range for strategic long range planning the researchers have analyzed seven years data from F/Y 2058/059, 2064/065, the tactical short-range plans covered the data details of one year 2063/064.

### 3.5 The Data Gathering Procedure

The required data and information are collected from the secondary as well as primary sources. As far as practicable both primary and secondary data has been collected.

#### A. Primary Data

The primary data comprises those interviews taken with the staffs of DDC and the questionnaire provided to the staffs of DDC, Central office.

#### B. Secondary Data

The secondary data are gathered from sources such as official reports of DDC, magazines and publications, journals, concern documents, sales budgets and achievements, previous studies made in this field etc.

### 3.6 Methods of Data Analysis

The collected raw and crude data are managed and analyzed in proper table and format. Interpretation and explanations are made wherever necessary. To analyze the collected data statistical tools such as mean, S.D, Correlation coefficient, coefficient of variation, percentage etc are used, and financial tools are also applied wherever necessary.

#### 3.6.1 Mean

Mean, also known as arithmetic average, is the most common measure of central tendency and may be define as the value which we get by dividing the total of the values of various items in series by the total number of items.

We can work it out as under

$$\text{Mean } \bar{X} = \frac{\sum X_i}{n} = \frac{X_1 + X_1 + \dots + X_n}{n}$$

- Where,
- $\bar{X}$  = The symbol we use for mean
  - $\Sigma$  = Summation,
  - $X_i$  = Value of  $i^{th}$  item item  $X_i$ ,  $I = 1, 2, \dots, n$
  - $n$  = Total number of items

### 3.6.2 Karl Pearson's Coefficient of Correlation

It is most widely used tool to measure the relationship between two variables. It is denoted by 'r'. In this research work, the coefficient of correlation we calculated in order to examine relation between Budgeted and actual data in various items.

The basic purpose of computing coefficient of correlation is to justify whether the planned data significant for future activities or not and whether the actual data are far from Budgeted data or not. So, to find out the position of both Budgeted and actual data we can use these tools.

It is calculated by using following formulas:

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

Where,  $x = X - \bar{X}$   
 $y = Y - \bar{Y}$   
 $r =$  Co-relation coefficient

The value of correlation coefficient lies between +1 and - 1, +1 denotes the perfect positive correlation '0' denotes there is no correlation and '-1' denotes the negative correlation between the two variables i.e. actual and budgeted data.

### 3.6.3 Probable Error (PE) of the coefficient of correlation

P.E of 'r' is very useful in interpreting the value of 'r' and is worked out as under for Karl Pearson's Coefficient of correlation. It is calculated as :

$$PE (r) = 0.6745 \frac{1-r^2}{\sqrt{n}}$$

Where,  $r =$  Correlation coefficient  
 $n =$  Number of items

### 3.6.4 Standard Deviation (S.D)

It is the most widely used measure of dispersion of a series and is commonly denoted by the symbol ' $\sigma$ ' (Sigma). Standard deviation is defined as the square-root of the average of square of deviations. In the present context standard deviation is calculated for actual data as well as budgeted data's of different milk products. It is worked out as under:

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum Xi - \bar{X}}{N}} = \sqrt{\frac{1}{n} \sum x^2} \text{ and } \sqrt{\frac{1}{n} \sum y^2}$$

$$\text{Where, } y = Y_i - \bar{Y}$$

### 3.6.5 Coefficient of Variation (C.V.)

It is define as mean sum of square of the variety values from the arithmetic mean. It is obtained by using the formula :

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

Where, C.V. = Coefficient of variation

$\sigma x$  = Standard deviation

$\bar{X}$  = Arithmetic mean

### 3.6.6 Regression Analysis

Regression is the determination of statistical relationship between two or more variable. The regression used in the study determines the statistical relationship between independent variable X (i.e. Budgeted sales) and dependent variable Y (i.e. Actual sales). The basic relationship between X and Y is given by;  $Y_c = a + bx$

Where,  $Y_c$  denotes the estimated value of Y for given value of X.

### 3.6.7 Time Series Analysis

"Time series analysis shows the relation between two variables, on being the time. It helps in understanding the pass behavior of a variable in the time series. Further, it helps in future forecasting and evaluating the present accomplishment."

$$Y = a + bx,$$

The calculated,  $a = \frac{\sum y}{n}$ ,  $b = \frac{\sum xy}{\sum x^2}$

### 3.7 Research Variables

The substantial plan, financial plan and sales of dairy products mainly relating to long-term and short-term period of DDC are the variables of the present study.

## **CHAPTER - FOUR**

### **DATA PRESENTATION AND ANALYSIS**

This chapter has been divided into two parts. Part first deals with the managerial process i.e. implementing procedure of sales plan in DDC for that purpose the data are collected from top and middle level staffs through distributing questionnaires. 25 questionnaires were distributed, among which 15 responses have been received and the managerial activities for planning sales have been analyzed with the help of their responses and the second part is concerned with analysis of the preparation of sales planning and its implementation.

#### **4.1 Managerial Process**

Analysis of managerial process i.e. formulation procedure of sales planning in DDC.

##### **4.1.1 Objective Formulation**

Any enterprises have its own objectives for operational purpose. Most of the activities of the enterprises are centralized within the objectives. Every enterprise has its own separate objectives to meet the government's Budgeted. DDC is one of the public enterprises of Nepal, which has its own objectives for its long-range destiny.

The researcher distributed a list of questions of managerial activities to the top and middle level managers of DDC, Central Unit. All the responses indicated that there are clearly defined goal and objectives.

##### **4.1.2 Planning and Clarity of Objectives**

The objectives of the enterprises may be different and can be achieved in short run and long run. Without proper planning, it is difficult to achieve the goals and objectives. The objectives should be clearly defined and the planned should be systematic. The respondents indicated with 100 percent that the goals and objectives are clearly written and defined.

**Table No. 4.1**  
**Planning and Clarity of Objectives**

Objectives (goals)	Rank wise no. of response (1 for less priority to 5 for more priority)					Mean weight	Overall Rank
	1	2	3	4	5		
a. Profit maximization		3	3	6	3	3.60	1
b. Share price maximization	1	3	4	5	2	3.27	4
c. Sales maximization		3	4	4	3	3.50	2
d. Value maximization		3	6	4	2	3.33	3

*Source : Field Survey, 2065/66*

The respondents gave the first priority to “Profit Maximization” with overall mean 3.6 and second priority to “Sales Maximization” with mean 3.5. Similarly the least priority has been given to “Share Price Maximization” with overall mean 3.27, among the four objectives. The respondents gave the moderate priority to “Value Maximization” which seen in above table.

#### **4.2.3 Duty and Responsibility**

The achievement of goals and objectives of any enterprises depends on its managerial activities. The managerial activities may be effective only when the duties and responsibility of the different level personnel are made clear.

**Table No. 4.2**  
**Duties and Responsibilities of Employees**

Objectives	No. of response	Percentage
Clearly and adequately defined	14	93.33
Ambiguously defined		
Inadequately defined		
Not defined at all		
Unknown	1	6.67
<b>Total</b>	<b>15</b>	<b>100</b>

*Source : Field Survey, 2065/66*

93.24 percent of respondents indicated the duties and responsibilities of employees are clearly and adequately defined. Only one respondent seem to be unknown about it, which is shown in table 4.2.

#### **4.2.4 Interference in Policies**

The policy of each enterprise may be different but it should concentrate to its goals and objectives. It indicated the duties and responsibilities of the personnel to achieve the goals and objectives of DDC have also formulated certain policies, such policies can be effective if they are properly applied.

**Table No. 4.3**  
**Interference in Policies**

<b>Objectives</b>	<b>No. of response</b>	<b>Percentage</b>
Day-to day operation	2	13.33
Weekly	-	
Monthly	3	20.00
Quarterly	2	13.33
Long-term policies	8	53.33
<b>Total</b>	<b>15</b>	<b>100</b>

*Source : Field Survey, 2065/66*

The respondents indicated that the board of directors of DDC highly interfering in long-term policies with 53.3 percent responses similarly, 20 percent respondents gave the opinion that there is interference in monthly activities but less interference in day-to-day operations policies with 13.3 percent. The management has given autonomy for the day-to-day operation, which is shown in table 4.3.

#### **4.2.5 Involvement and Commitment of Management**

The management of any enterprises formulated goals and objectives and centralized its activities to achieve them in certain time, the personnel of different levels should be involve in management for formulation and achievement of the goals and objectives of the enterprises.



**Table No. 4.4**  
**Involvement and Commitment of Management**

Level of Management	No. of response	Percentage
Top level management	8	53.33
Middle level management	-	
Lower level management	1	6.67
All of them	6	40
<b>Total</b>	<b>15</b>	<b>100</b>

*Source : Field Survey, 2065/66*

The goals and objectives of DDC have been clearly defined, but objective with 53.3 percent responses. Middle level management are completely ignored for the commitment of goals and objectives. Second priority have been given to all of them. i.e. (top, middle and lower level management) with 40 percent response. Only one respondent gave the lower level management. For commitment of goal and objectives which are shown in table 4.4.

#### **4.2.6 Operational Activities of Sales Plan of the Enterprises**

The operational activities enterprises develop the numerous plans to achieve their goals and objectives. The sales plan is an important part of the overall planning process. Among the different operational activities, the respondents of DDC gave the first priority to “quality of product” with overall mean weight of 4.73. Similarly 2<sup>nd</sup> and 3<sup>rd</sup> priority has been given to managerial knowledge of market and “location of sales center” respectively. Least priority has been given to “political system”.

**Table No. 4.5**  
**Operational Activities of Sales Plan**

Operational Activities	Rank wise no. of response (1 for less priority to 5 for more priority)					Mean weight	Overall Rank
	1	2	3	4	5		
a. Information system	1	3	2	5	3	3.43	4
b. Technology used	2	5	3	1	3	2.86	6
c. Trainees sales force	2	6	3	3	-	2.50	7
d. Managerial knowledge of market	-	3	2	7	3	3.67	2
e. Effective sales strategy	-	4	5	4	2	3.27	5
f. Quality of product	-	-	1	2	12	4.73	1
g. Political system	4	6	2	2	1	2.33	8
g. Motivational; employees	2	1	6	3	3	3.27	5
h. Location sales center	1	3	2	4	5	3.60	3

*Source : Field Survey, 2065/66*

#### **4.2.7 Component of Preparing Sales Budget**

The overall responsibility of preparing sales budget is upon sales manager, although other departmental manager including chief executive should also be involved in formulation and development of ideal and realistic sales budget. All organizational operational are directly linked with the sales budget thus sales budget should be prepare as realistic as possible.

Generally, four steps or components are involved in preparing of sales budget. They are:

- a. The sales forecast.
- b. The marketing plan.
- c. The advertising expense budget.
- d. The Selling expenses budget.

**Table No. 4.6**  
**Component in Preparing Sales Budget**

Components	Rank wise no. of response					Mean weight	Overall Rank
	1	2	3	4	5		
a. Sales forecast	2	2	3	5	3	3.33	3
b. Marketing plan	1	2	3	2	7	3.80	1
c. Advertising plan	4	4	2	5	-	2.53	4
d. Selling expenses budget	1	2	4	2	4	3.46	2

*Source : Field Survey, 2065/66*

Out of above four components in preparing sales budget, the respondents gave the first priority to “marketing plan” with overall mean 3.8, 2nd priority to “Selling expense budget” with overall mean 3.46 and least priority to “advertising plan” with the overall mean 2.53, which is shown in table no. 4.6

#### **4.2.8 Monitoring and Evaluating the Sales Budget**

There must be correlation among all the departments, to achieve the goals and objectives in certain time period. Evaluating and monitoring process should be applied time to time.

**Table No. 4.7**  
**Monitoring and Evaluating the Sales Budget**

Level of Management	No. of Response	Percentage
Marketing manager	3	20.00
Chief Executive	2	13.33
Both of above	9	60.00
Unknown	1	6.67
<b>Total</b>	<b>15</b>	<b>100</b>

*Source : Field Survey, 2065/66*

For evaluating and monitoring the sales budget, the responses gave the first priority to „Both of them” (Marketing manager and Chief Executive) with 60 percent. By the response it seems that only one response was unknown about the system, which is shown in table 4.7.

#### 4.2.9 Responsibility in Preparing Sales Budget

Sales budget is one of the important budgets of all the budgets. If it is not realistic all the budgeting procedure are also misleading. Therefore the person, who are mainly concerned in the preparing for sales budget must be responsible and careful.

**Table No. 4.8**  
**Responsibility in Preparing Sales Budget**

<b>Responsibilities</b>	<b>No. of response</b>	<b>Percentage</b>
Marketing manager	4	26.67
Chief executive	2	13.33
Other dept. manager	0	0
All of them	9	60.00
<b>Total</b>	<b>15</b>	<b>100</b>

*Source : Field Survey, 2065/66*

For the responsibility in preparing sales budget the respondents gave high priority to “All of them” (i.e. chief Executive, marketing manager and other department manager) with 60 percent. Similarly, 26.64 percent to marketing manager. None of the response was with the other dept. manager. Only 2 respondents gave the priority to Chief executive. In the same extent, it seemed that the responsibility in preparing sales budget is scientific which is shown in table 4.8.

#### 4.3 Analysis and Developing the Sales Plan

The sales planning process is necessary part of profit plan because it provides for the basic management decision about the marketing and based on that decision, it is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, then all of other parts of the over-all profit plan will not be realistic. Therefore, if the management believes that a realistic sales plan cannot be developed; there is little justification for the profit plan. There is no problem for sales or marketing in Nepal for milk and milk products, Supply side is more important than demand side because the Nepalese manufacturing PEs are not in position to fulfill the national demand. The demand of milk and milk products in urban site of Nepal is very high than the supply of milk and its products; this is the situation of market in Nepal.

The manufacturing PEs in Nepal are facing many difficulties from the planning of sales. The public enterprises have a chronic problem of top-level management commitment and serious attention and resource planning. In an enterprise, fixing the sales Budgeted without consideration of enterprises objectives, strategies and sales forecasting techniques is common in practice in PEs of Nepal.

#### 4.3.1 Milk Sales Budgeted and Achievement (in Ltrs)

Fiscal year 2058 to 2065 milk sales budgeted and actual given below:

**Table No. 4.9**  
**Milk Sales Budgeted and Actual (in ltrs.)**

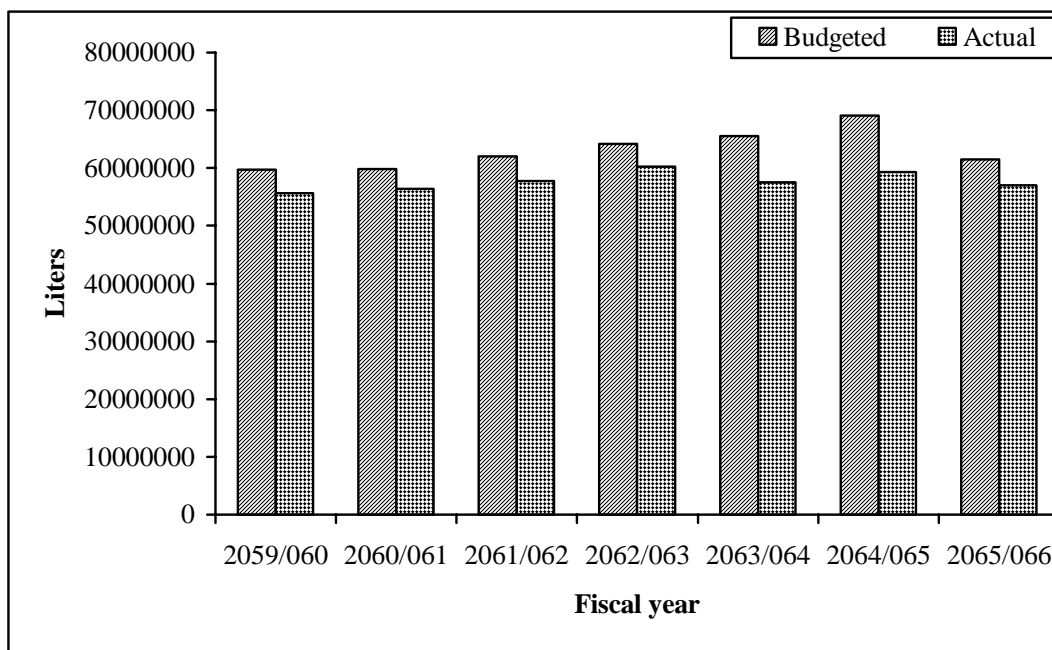
<b>Fiscal Year</b>	<b>Budgeted</b>	<b>Actual</b>	<b>Achievement %</b>
2058/059	59741000	55645157	93.14
2059/060	59812000	56357176	94.22
2060/061	61961000	57764000	93.23
2061/062	64217000	60276000	93.86
2062/063	65495000	57492000	87.82
2063/064	69050000	59317000	85.96
2064/065	61481000	56983000	92.68

*Source : DDC*

From the above table, it is clear that the ratio of achievement is not consistent. There is neither continuous increment in the achievement nor decrease. In fiscal year 2058/2059 actual sales less than budgeted sales by 409584 liters s and achievement percent is 93.4. In fiscal year 2059/60 actual sales is less than budget sales by 3454824 and achievement percent is 94.22 percent. In fiscal year 2060/61, actual sales is less than budgeted sales by 4197000 liters s and achievement percent is 93.23 percent, in fiscal year 2061/62 actual sales less than budgeted sales by 3941000 liters s and achievement percent is 93.86 percent. In fiscal year 2062/63, actual sales is less than budgeted sales by 8003000 and achievement percent is 87.82. In fiscal year 2063/64, actual sales is less than budgeted sales by 9733000 and achievement percent is 85.9. And in fiscal year 2064/65 actual sales is less than budget sales by 4498000 and achievement percent is 92.68. The best achievement is in year 2059/60 which is 94.22 percent and low achievement is in year 2063/64, which is 85.96 percent of the budget sales. This is the good performance for the company in year 2059/60. The management (board) of DDC is trying to implement a

follow-up procedure in planning of sales but as the number of private dairies are increasing the result is not as desired. The sales Budgeted with achievement of milk sales is shown by the bar graph by the figure 4.1.

**Figure No. 4.1**  
**Sales Budgeted with Achievement of Milk Sales**



Source : Table No. 4.9

#### 4.3.2 Makhan Sales Budgeted and Achievement (in kgs)

Fiscal year 2058 to 2065 Makhan sales Budgeted and achievement given below:

**Table No. 4.10**  
**Makhan Sales Budgeted and Achievement (in kgs)**

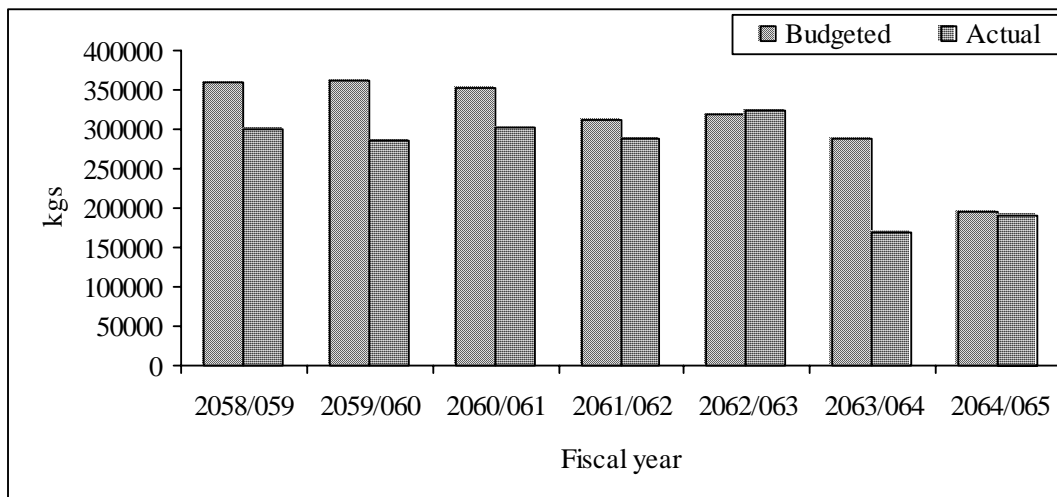
Fiscal Year	Budget	Actual	Achievement %
2058/059	358500	300192	83.74
2059/060	361700	285314	78.88
2060/061	351800	302000	85.84
2061/062	311000	287000	92.28
2062/063	318000	323000	101.57
2063/064	288000	170000	59.03
2064/065	195500	189600	96.98

Source : DDC

From the above table, it is clear that the ratio of achievement is not consistent. There is neither continuous increment in the achievement nor decrease. In fiscal year 2058/2059 actual sales less than budgeted sales by 58308 liters s and achievement percent is 83.74. in fiscal year 2059/60 actual sales is less than budget sales by 76386 liters s and achievement percent is 78.88 percent. In fiscal year 2060/61, actual sales is less than budgeted sales by 49800 liters s and achievement percent is 85.84 percent, in fiscal year 2061/62 actual sales less than budgeted sales by 24000 liters s and achievement percent is 92.28 percent. In fiscal year 2062/63, actual sales is greater than budgeted sales by 5000 liters s and achievement percent is 101.57. In fiscal year 2063/64, actual sales is less than budgeted sales by 118000 liters s and achievement percent is 59.03 And in fiscal year 2064/65 actual sales is less than budget sales by 5900 liters and achievement percent is 96.98. The best achievement is in year 2062/63 which is 96.98 percent and low achievement is in year 2063/64, which is 59.03 percent of the budget sales. This is the good performance for the company in year 2064/65. The management (board) of DDC is trying to implement a follow-up procedure in planning of sales but as the number of private dairies are increasing the result is not as desired. The sales Budgeted with achievement of milk sales is shown by the bar graph by the figure 4.2.

**Figure No. 4.2**

**Makhan's Sales Budgeted with Achievement**



Source : Table No. 4.10

#### 4.2.4.3 Curds Sales Budgeted and Actual (in Ltrs)

Fiscal year 2058 to 2065 curds sales Budgeted and achievement given below:

**Table No. 4.11**  
**Curbs Sales Budgeted and Actual (in Ltrs.)**

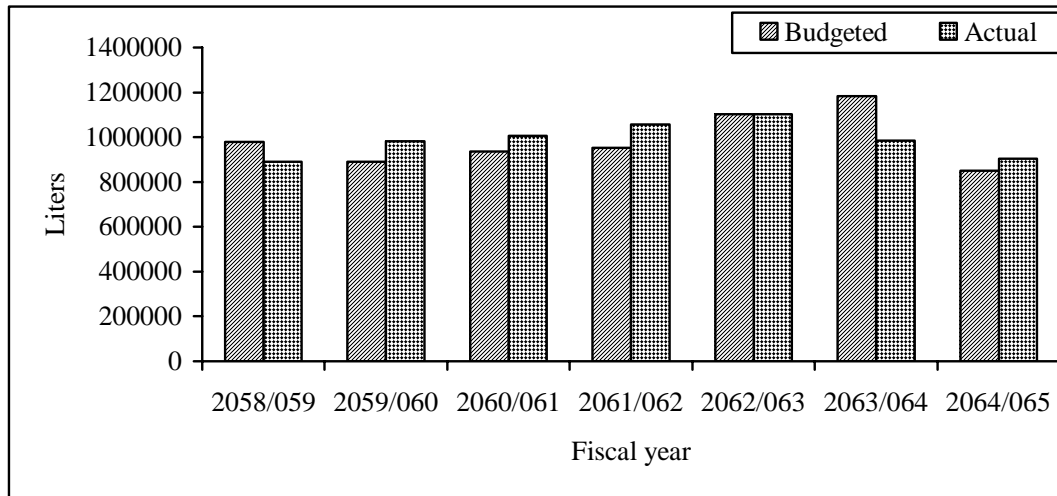
<b>Fiscal Year</b>	<b>Budgeted</b>	<b>Actual</b>	<b>Achievement %</b>
2058/059	980000	890538	90.87
2059/060	889500	981575	110.35
2060/061	935000	1006000	107.59
2061/062	951000	1057000	111.15
2062/063	1101000	1102000	100.09
2063/064	1182000	985000	83.33
2064/065	850150	904000	106.33

*Source : DDC*

From the above table, it can be said that the sales of curd is good. Achievement is extremely well. Although budgeted is not gradually increasing. In fiscal year 2058/2059 actual sales less than budgeted sales by 89462 liters and achievement percent is 90.87. In fiscal year 2059/60 actual sales is greater than budget sales by 92075 liters and achievement percent is 110.35 percent. In fiscal year 2060/61, actual sales is greater than budgeted sales by 71000 liters and achievement percent is 107.59 percent, in fiscal year 2061/62 actual sales greater than budgeted sales by 106000 liters and achievement percent is 111.15 percent. In fiscal year 2062/63, actual sales are greater than budgeted sales by 1000 liters and achievement percent is 100.09. In fiscal year 2063/64, actual sales are greater than budgeted sales by 197000 liters and achievement percent is 83.33. And in fiscal year 2064/65 actual sales is greater than budget sales by 53850 liters and achievement percent is 106.33. The best achievement is in year 2061/62 which is 111.15 percent and low achievement is in year 2063/64, which is 83.33 percent of the budget sales. This is the good performance for the company in year 2061/62. The achievement is greater than expected. This may be due to conflict in management, competition with private dairies etc.



**Figure No. 4.3**  
**Curd Sales Budgeted with Actual (in Ltrs.)**



Source : Table No. 4.11

#### 4.2.4.4 Cheese Sales Budgeted and Actual (in kgs)

Fiscal year 2058 to 2065 cheese sales Budgeted and Actual given below:

**Table No. 4.12**  
**Cheese Sales Budgeted and Actual (in kgs)**

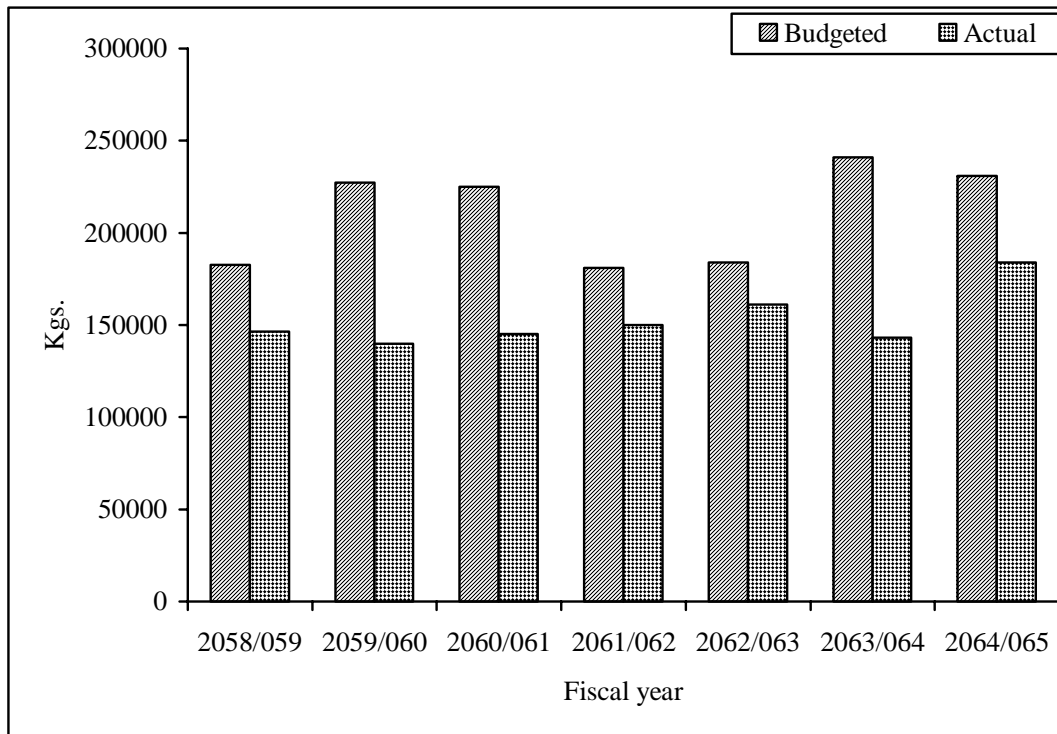
Fiscal Year	Budgeted	Actual	Achievement %
2058/059	182750	146480	80.32
2059/060	227400	140038	61.58
2060/061	225000	145000	64.44
2061/062	181000	150000	82.87
2062/063	184000	161000	87.50
2063/064	241000	143000	59.34
2064/065	230800	184000	79.72

Source : DDC

From the above table, it is seen that the planning does not prove to be good as there is not good achievement in any year. It is clear that the ratio of achievement is not consistent. There is neither continuous increment in the achievement nor decrease. In fiscal year 2058/2059 actual sales less than budgeted sales by 36270 kgs and achievement percent is 80.32. In fiscal year 2059/60 actual sales is less than budget sales by 87362 kgs and

achievement percent is 61.58 percent. In fiscal year 2060/61, actual sales is less than budgeted sales by 80000 kgs and achievement percent is 64.44 percent, in fiscal year 2061/62 actual sales less than budgeted sales by 31000 kgs and achievement percent is 82.87 percent. In fiscal year 2062/63, actual sales is less than budgeted sales by 23000 kgs and achievement percent is 87.5. In fiscal year 2063/64, actual sales is less than budgeted sales by 98000 kgs and achievement percent is 59.34. And in fiscal year 2064/65 actual sales is less than budget sales by 46800 kgs and achievement percent is 79.72. The best achievement is in year 2062/63 which is 87.50 percent and low achievement is in year 2063/64, which is 59.34 percent of the budget sales. This is the good performance for the company in year 2062/63. The actual sale is always less than the budgeted sales. The evaluation of the achievement of the running year is the key to plan for the next, which is not applied here. The best of achievement is in year 2062/063 which is (87.5 percent) although it is less than Budgeted.

**Figure No. 4.4**  
**Cheese Sales Budgeted with Actual**



Source : Table No. 4.12

#### 4.2.4.5 Ghee Sales Budgeted and Actual (in Kgs)

Fiscal year 2058 to 2065 ghee sales Budgeted and Actual given below:

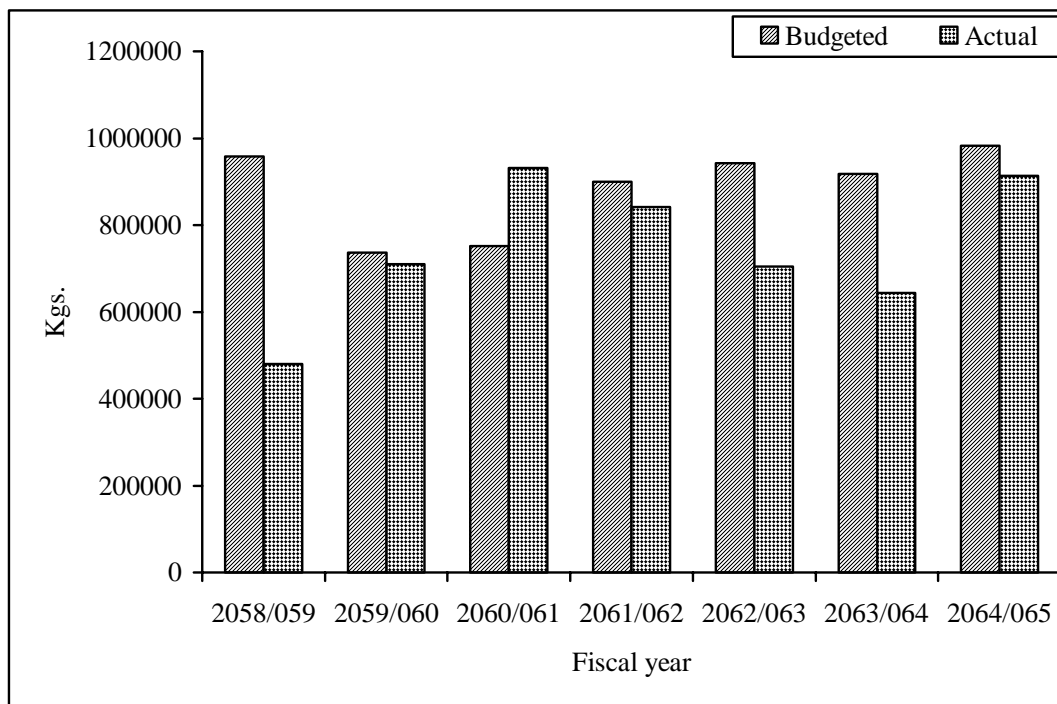
**Table No. 4.13**  
**Ghee Sales Budgeted and Actual (in kgs)**

<b>Fiscal Year</b>	<b>Budgeted</b>	<b>Actual</b>	<b>Achievement %</b>
2058/059	958038	479904	50.09
2059/060	736000	709786	96.44
2060/061	752000	931000	123.80
2061/062	899000	842000	93.66
2062/063	943000	704000	74.66
2063/064	917000	644000	70.23
2064/065	983100	913000	92.87

*Source : DDC*

From the above table, the achievement of ghee sales exceeds the Budgeted only in the year 2060/061 but in other years it is less than Budgeted. In fiscal year 2058/2059 actual sales less than budgeted sales by 478134 kgs and achievement percent is 50.09. In fiscal year 2059/60 actual sales is less than budget sales by 26214 kgs and achievement percent is 96.44 percent. In fiscal year 2060/61, actual sales is greater than budgeted sales by 179000 kgs and achievement percent is 123.80 percent, in fiscal year 2061/62 actual sales less than budgeted sales by 57000 kgs and achievement percent is 93.66 percent. In fiscal year 2062/63, actual sales is less than budgeted sales by 239000 kgs and achievement percent is 74.66. In fiscal year 2063/64, actual sales is less than budgeted sales by 917000 kgs and achievement percent is 70.23. And in fiscal year 2064/65 actual sales is less than budget sales by 70100 kgs and achievement percent is 92.87. The best achievement is in year 2060/61 which is 123.80 percent and low achievement is in year 2058/59, which is 50.09 percent of the budget sales. This is the good performance for the company in year 2060/61.

**Figure No. 4.5**  
**Ghee Sales Budgeted and Actual**



Source : Table No. 4.13

#### 4.2.4.6 Paneer Sales Budgeted and Actual (in kgs)

Fiscal year 2058 to 2065 paneer sales Budgeted and Actual given below:

**Table No. 4.14**  
**Paneer Sales Budgeted and Actual (in kgs)**

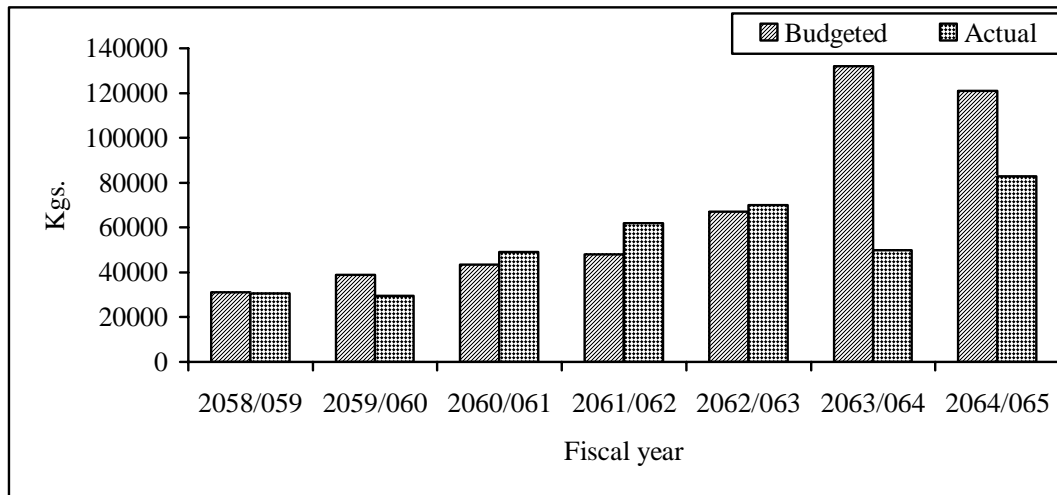
Fiscal Year	Budgeted	Actual	Achievement %
2058/059	31000	30660	98.90
2059/060	39000	29500	75.64
2060/061	43360	49000	113.07
2061/062	48000	62000	129.17
2062/063	67000	70000	104.48
2063/064	132000	50000	37.88
2064/065	120960	83000	68.62

Source : DDC

From the above table, in fiscal year 2058/2059 actual sales less than budgeted sales by 340 kgs and achievement percent is 98.90. In fiscal year 2059/60 actual sales is less than budget sales by 9500 and achievement percent is 75.64 percent. In fiscal year 2060/61, actual sales is greater than budgeted sales by 5640 and achievement percent is 113.01 percent, in fiscal year 2061/62 actual sales greater than budgeted sales by 14000 kgs and achievement percent is 129.17 percent. In fiscal year 2062/63, actual sales is greater than budgeted sales by 3000 kgs and achievement percent is 104.48. In fiscal year 2063/64, actual sales is less than budgeted sales by 82000 kgs and achievement percent is 37.88. And in fiscal year 2064/65 actual sales is less than budget sales by 37960 kgs and achievement percent is 68.62. The best achievement is in year 2061/62 which is 129.17 percent and low achievement is in year 2063/64, which is 37.88 percent of the budget sales. This is the good performance for the company in year 2061/62. It is far behind than budgeted. There need to be revision in sales planning of paneer. Because of private sector producing better quality product or their marketing is good the sales of paneer may have decreased.

**Figure No. 4.6**

**Paneer Sales Budgeted with Actual (in kgs.)**



Source : Table No. 4.14

#### 4.2.4.7 Ice-Cream Sales Budgeted and Actual (in Ltrs)

Fiscal year 2058 to 2065 ice cream sales Budgeted and Actual given below:

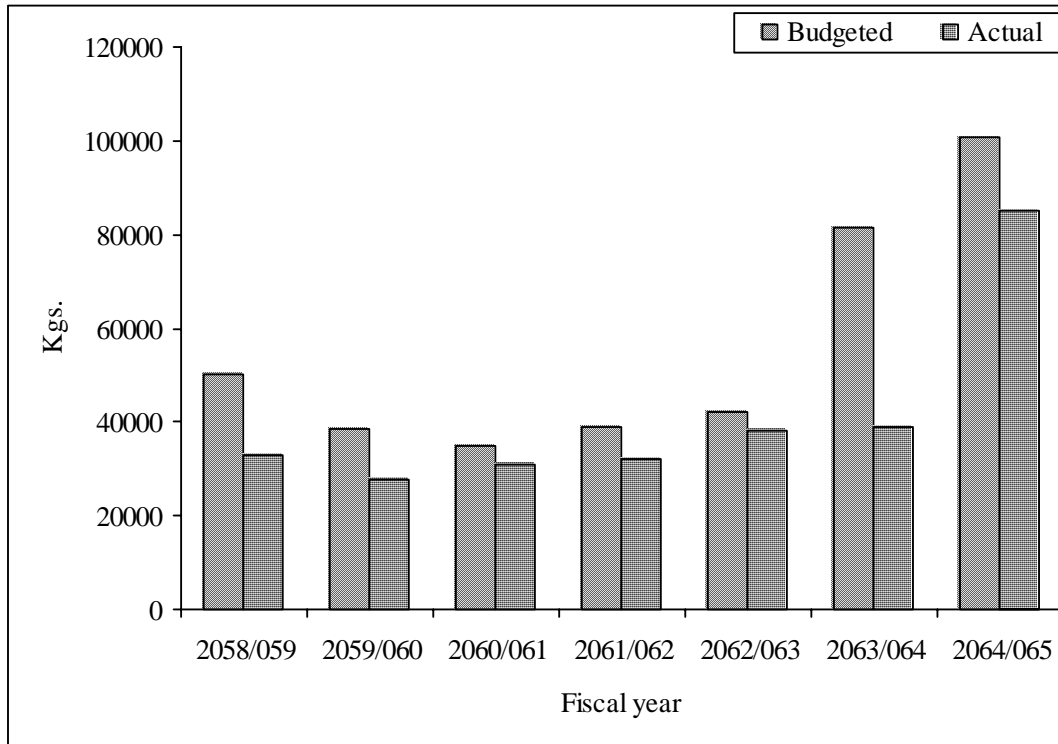
**Table No. 4.15**  
**Ice-Cream Sales Budgeted and Actual (in ltrs)**

<b>Fiscal Year</b>	<b>Budgeted</b>	<b>Actual</b>	<b>Achievement %</b>
2058/059	50266	32750	65.15
2059/060	38500	27620	71.74
2060/061	35000	31000	88.57
2061/062	39000	32000	82.05
2062/063	42000	38000	90.48
2063/064	81600	39000	47.79
2064/065	100700	85000	84.41

*Source : DDC*

Table No. 4.15, reflects that the sales of ice-cream's achievement is never meeting the budgeted in any year. In fiscal year 2058/2059 actual sales less than budgeted sales by 17576 liters s and achievement percent is 65.15. In fiscal year 2059/60 actual sales is less than budget sales by 10880 liters s and achievement percent is 71.74 percent. In fiscal year 2060/61, actual sales is less than budgeted sales by 4000 liters s and achievement percent is 88.57 percent, in fiscal year 2061/62 actual sales less than budgeted sales by 7000 liters s and achievement percent is 82.05 percent. In fiscal year 2062/63, actual sales is less than budgeted sales by 4000 liters s and achievement percent is 90.48. In fiscal year 2063/64, actual sales is less than budgeted sales by 42600 liters s and achievement percent is 47.79. And in fiscal year 2064/65 actual sales is less than budget sales by 15700 and achievement percent is 84.41. The best achievement is in year 2062/63 which is 90.48 percent and low achievement is in year 2063/64, which is 47.79 percent of the budgeted sales. This is the good performance for the company in year 2062/63. The actual sales from 2058/059 to 2064/065 is always less than budgeted sales. So, there need a review in ice-cream's sales. This is due to the neck to neck competition of the private sector and poor marketing.

**Figure No. 4.7**  
**Ice-Cream Sales Budgeted and Actual (in Ltrs)**



Source : Table No. 15

#### 4.2.4.8 Cream Sales Budgeted and Actual (in Ltrs)

Fiscal year 2058 to 2065 cream sales Budgeted and Actual given below:

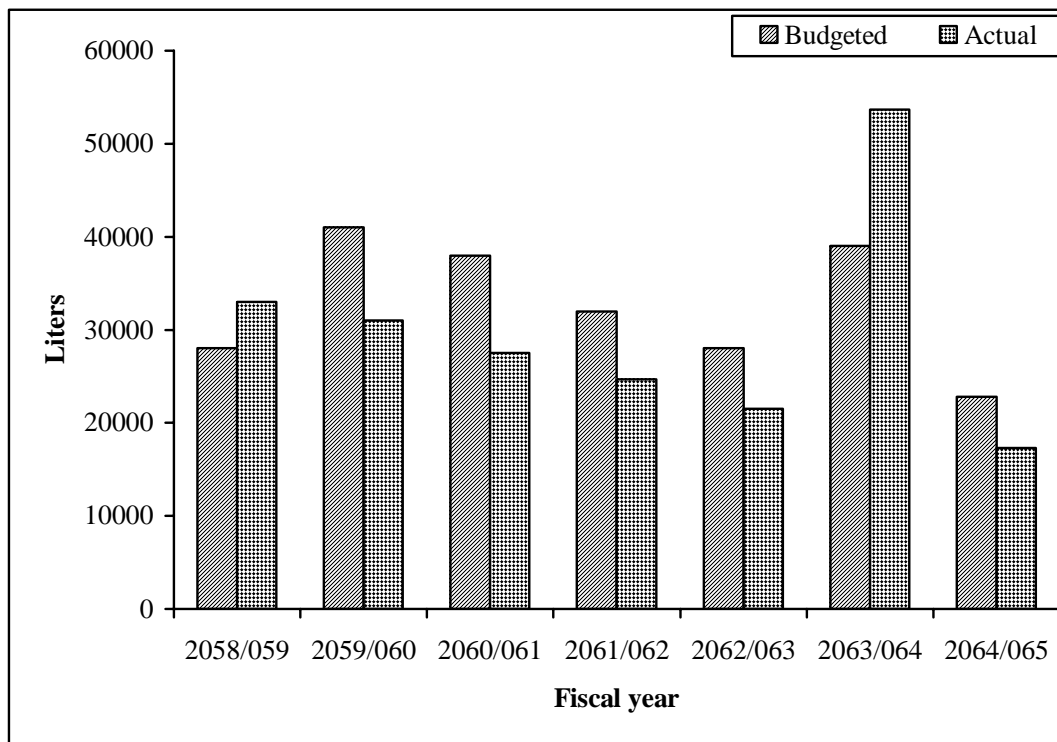
**Table No. 4.16**  
**Cream Sales Budgeted and Actual (in ltrs)**

Fiscal Year	Budgeted	Actual	Achievement %
2058/059	28000	33000	117.86
2059/060	41000	31000	75.61
2060/061	38000	27500	72.37
2061/062	32000	24700	77.19
2062/063	28000	21500	76.79
2063/064	39000	53700	137.69
2064/065	22800	17300	25.88

Source : DDC

From above table, in fiscal year 2058/2059 actual sales greater than budgeted sales by 5000 liters s and achievement percent is 117.86. In fiscal year 2059/60 actual sales is less than budget sales by 10000 liters s and achievement percent is 75.61 percent. In fiscal year 2060/61, actual sales is less than budgeted sales by 105000 liters s and achievement percent is 72.37 percent, in fiscal year 2061/62 actual sales less than budgeted sales by 7300 liters s and achievement percent is 77.19 percent. In fiscal year 2062/63, actual sale is less than budgeted sales by 6500 liters s and achievement percent is 76.79. In fiscal year 2063/64, actual sale is greater than budgeted sales by 24700 liters s and achievement percent is 137.69. And in fiscal year 2064/65 actual sales is less than budget sales by 5500 liters s and achievement percent is 75.88. The best achievement is in year 2063/64 which is 137.69 percent and low achievement is in year 2060/61, which is 72.37 percent of the budget sales. This is the good performance for the company in year 2063/64. In the F/Y 2058/059 and 2063/064 the sales of cream have been extremely good i.e. actual sales in more than budgeted sales but is the other years it is less than budgeted. Budgeted and actual both are not is a gradually decreasing or increasing order.

**Figure No. 4.8**  
**Cream Sales Budgeted and Actual (in Ltrs)**



Source : Table No. 4.16



#### 4.2.5 Karl Pearson's Coefficient of Correlation (r)

In data analysis and examining activities the projected and planned data are comparatively fitted in various forms. The basic purpose of computing coefficient of correlation is to justify whether the planned data are significant for future activities or not and whether the actual data are far from Budgeted data or not. So to find out the position of both Budgeted and actual data we can use this tool. It has been calculated in appendix.

#### Probable error (P.E) of the Coefficient of Correlation

P.E of 'r' is useful in interpreting the value of 'r'. If 'r' is more than P.E, there is correlation. If 'r' is more than 6 times its P.E. and greater than +0.5 then is considered significant.

**Table No. 4.17**

#### **Coefficient of Correlation and Probable Error of Coefficient of Correlation**

<b>Appendix No.</b>	<b>Dairy Products</b>	<b>Coefficient of correlation</b>	<b>Probable error of coefficient of correlation</b>
X	Milk	0.741	0.1149
XI	Makhan	0.793	0.0946
XII	Curd	0.4123	0.2115
XIII	Cheese	0.0159	0.2548
XIV	Ghee	-0.2068	0.24403
XV	Paneer	0.5757	0.17044
XVI	Ice-cream	0.8527	0.0375
XVII	Cream	0.6188	0.1573

Source : Appendix

Table 4.17 shows that there is a positive correlation between planned milk and actual milk sales, Budgeted and actual Makhan sales, Budgeted and actual curd sales, actual and budgeted cheese sales, actual and Budgeted paneer, actual and Budgeted ice-cream and Budgeted and actual cream. Among of these, there is high degree of positive correlation between planned ice-cream and actual ice-cream sales, planned mahkan and actual makhan sale, planned milk and actual milk sales because it is greater than 0.75 other items like paneer and cream is satisfactory performance of curd and cheese is highly satisfactory. Table 4.17 shows that there is a negative correlation between planned ghee and actual sales of ghee as it are less than 0.

Probable error of items Ghee and Cheese are greater than their correlation coefficient. Which is not all significant? This is not the good sign for the company (DDC) for these (Ghee and Cheese) products.

**Table No. 4.18**

**Total Budget Sales and Total Actual Sales of Milk and Milk Products (Rs. In lakhs)**

<b>Fiscal Year</b>	<b>Budgeted sales (Rs.)</b>	<b>Actual sales (Rs.)</b>	<b>Variance Amt.</b>	<b>Variance %</b>
2058/059	15611.35	13483.99	2127.36	13.63
2059/060	16722.68	14847.72	1874.96	11.21
2060/061	16405.02	15519.11	885.91	5.4
2061/062	15959.06	15454.48	504.58	3.16
2062/063	17393.45	15358.10	2035.35	11.7
2063/064	19281.64	15896.63	3385.041	17.55
2064/065	19873.33	17126.81	2746.52	13.82
Correlation of coefficient = 0.81				

*Source : DDC*

Table 4.18 indicates the total amount of budgeted sales Rs. (In Lakhs) and total actual sales Rs. (in lakhs). It shows that budgeted sales are always higher than the actual sales. There has been improvement in actual sales in recent years.

The calculated correlation coefficient between total budgeted sales and actual sales is 0.810 (shown in appendix 18) which shows that there is highly positive correlation between them.

There is variance between the budgeted sales and actual sales from the year 2058/059 to 2064/065, which is unfavourable. The highest amt. of variance is in the year 2063/064, which is 17.55 percent. The less variance is in the year 2061/062 which is 3.16 percent.

#### **4.2.6 Statistical Tools and Interpretation**

To test consistency of budgeted and actual sales of “Dairy products” in different years, statistical tools as arithmetic mean, standard deviation and coefficient of variation have been calculated (detailed is given in appendix.)

**Table No. 4.19****Statistical Summary of Actual and Budgeted Sales Dairy Products**

<b>Component</b>		<b>Mean (x)</b>	<b>S.D.</b>	<b>C.V. (%)</b>
Milk	Budget	631.081	31.258	4.95
	Actual	576.905	15.041	2.61
Makhan	Budget	3.12	0.539	17.28
	Actual	2.52	0.5093	19.96
Curd	Budget	9.84	1.0907	11.08
	Actual	9.885	0.7031	7.11
Cheese	Budget	2.102	0.244	11.61
	Actual	1.528	0.142	9.27
Ghee	Budget	8.84	0.921	10.42
	Actual	7.462	1.399	18.75
Paneer	Budget	68.76	38.01	55.28
	Actual	53.45	18.302	34.24
Ice-cream	Budget	55.295	23.64	42.75
	Actual	40.767	18.423	45.19
Cream	Budget	32.68	6.317	19.33
	Actual	29.81	10.95	36.72

*Source : Appendix - X-XVII*

Above table shows that actual sales are more deviated from the budgeted sales in case of milk, Paneer and cream. We know that higher the value of coefficient of variation, higher the degree of variability in nature of data. It can be said that there is significant gap between weakness of top-level management (i.e. board of directors and EO regarding, the reading in internal and external variables of organization which effects the performance of the organization. These problems needs to be summoned in time and should be taken necessary steps. Products like Makhan, Ghee, Ice-Cream and cream has the coefficient of variation of actual sales more than the coefficient of variation of the products. This shows that sales performance of these products are not satisfactory. The sales of milk, curd, cheese and paneer is quite satisfactory.

#### 4.2.7 Variance Analysis

Variance analysis, in general comparison process between actual and budgeted result, is the integral part of the control process. Reporting of variance between actual results and Budgeted or budgeted figures is a basic feature of performance reports. Analysis of variance guide planner to continue favourable results and to make good decision or review over the unfavourable situations. A careful management study should be made to determine the underlying cause for significant variance. Following steps are taken while analyzing variance.

- Standards should be developed for labour, sales, profit etc.
- Comparison between actual result and standard should be made to find variance.
- Causes should be analyzed and diagnosed as controllable and uncontrollable.
- Responsibility and accountability should be assigned to related center and authorized personnel should be made accountable for controllable causes of unfavourable variances.

Nepalese public enterprises have not well developed system of determining standard or overhead, expenses, yields, sales and profit only rough comparison between Budgeted and actual sales made.

#### 4.2.8 Trend of Profit /Loss in DDC

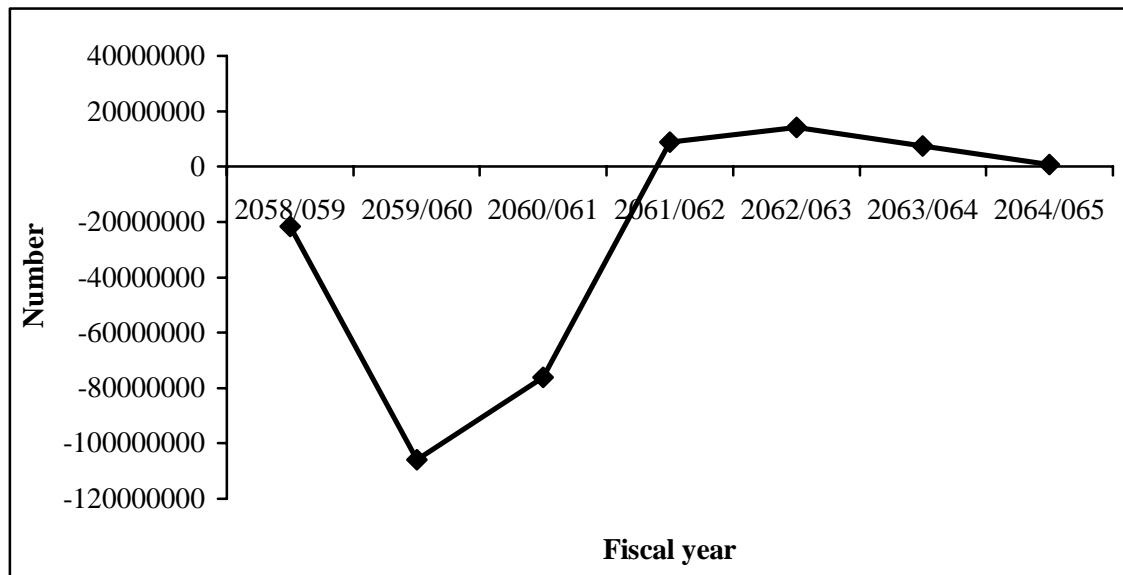
**Table No. 4.20**  
**Profit and Loss Trend**

<b>Fiscal Year</b>	<b>Profit and Loss</b>
2058/059	-21627538.45
2059/060	-105902081.10
2060/061	-76132944.24
2061/062	8931871.41
2062/063	14117594.06
2063/064	7367717.44
2064/065	826000

*Source : Annual Report of DDC*

Table no 4.20 shows that like other PEs of Nepal, DDC is always suffering from the chronic disease i.e. loss occurrence. Although there has been positive indication since the year 2061/062 onwards i.e. profit is generating. But still there is a huge amount of accumulated loss in DDC. This small amount of profit can't help in recovering those big amounts of accumulated loss. So, the management needs to be aware of that. These losses are occurring due to lack of commitment, political interference, marketing strategy etc. correction is needed in time as DDC has lots of possibility to grow and make profits. The effectiveness of sales planning process can be viewed through profit/loss trend also. For generating good profit, DDC should have effective sales planning. There must be control of cost of production promotional work should be effective Table 4.20 is presented in figure 4.9.

**Figure No. 4.9**  
**Profit and Loss Trend in DDC**



Source : Table No. 20

#### 4.2.9 Tactical (Short-Term) Sales Budget

For the coming year's twelve months, short term sales budget in a company is prepared. The short-term sales budget includes a detailed plan for each major product and for grouping of minor products. Short-term sales plan are usually developed in terms of

physical units or jobs and in sales and service rupees. Short term sales plan must also be structured by marketing responsibility for planning purposes. Short-term sales plan may involve the application of technical judgment plays a large part in their determination.

The amount of detail in tactical sales plan is a function of the company's environment characteristics. A short-term sales plan should include considerable details. There need to be a co-ordination among the entire department which mainly related sales plan. A short term sales budget for year 2064/065 is given in appendix.

### **4.3 Major Findings of the Study**

After the study and analysis of the study of sales planning in DDC different facts have been found out by the researcher. DDC is one of the PEs of Nepal so here also plans are prepared on adhoc basis. Without the analysis of environment the objectives are set by DDC, which are not suitable or appropriate. There is a great demand of milk and milk products in the urban area. DDC.s work is to systematize the collection of milk and produce the milk and products and distribute it to the people.

Mostly DDC is collecting milks from different remote village areas of the country and distributing it to the urban area. There has been establishment of many private diaries which does the same. So there is a neck-to-neck competition with these Diaries. DDC sets the budgeted but it is unable to meet that budgeted due to the lack of commitment and effective marketing policy. Now the time has come that DDC should make market studies on Demand supply and pricing of milk and Dairy products should be carried out. There have been no effective research and development unit, which need to be strengthened and enabled. Some other major findings are listed as below:

- (i) DDC is not preparing the systematic periodic performance reports detailed by assigned responsibilities for accomplishing the planning objectives.
- (ii) By the analysis, there is no systematic and realistic sales plan. The sales planning is rarely satisfactory for some product but not for all. In most of the cases actual sales is far behind the Budgeted sales.

- (iii) The company prepared the sales budget without studying the environmental scanning. There is no co-ordination between the various departments sales forecast; marketing plan, advertising plan etc are the main component of sales budget. Sales forecast and advertising has been ignored. The sales department has no clear concept about the sales forecast.
- (iv) The actual sales of milk, Makhan, cheese and ice-cream is always less than the budgeted sales in different years. The actual has never bothered to exceed the budgeted sales. The sales of curd, Paneer, cream is satisfactory.
- (v) There is always variance (unfavourable) in between budgeted and actual sales except in some cases. The achievement percentage of milk sales is highest achievement in 2059/060 (i.e. 94.22 percent of budgeted), for Makhan the highest achievement is in the year 2064/065 which is 96.98 percent of the budgeted sales. For the ghee only in the year 2059/060 the actual sales has been exceed the budgeted but not in other years. For Paneer achievement is 98.90 percent in 2058/059, 75.64 percent in 2059/060, 113 percent in 2060/061, 129.16 percent in 2061/062, 104.47 percent in 2062/063, 37.88 percent in 2063/064 and 68.61 percent in 6/2064/065 for ice-cream 88.5 percent in 2060/061, 90.476 percent in 2062/063, 84.40 percent in 2064/065, for curd achievement is quite exciting, except in the year 2063/064 and 2058/059 it has exceed the budgeted sales. For cream the achievement percentage is quite mixed. The highest achievement percentage is in 2063/064 (i.e. 137.69 percentage) and 117.85 percent in 2058/059.
- (vi) There is positive correlation between actual sales and budgeted sales of dairy products like milk, makhan, curd, cheese, paneer, ice-cream and cream. Among of these items, there is high degree of positive correlation between the budgeted and actual sales of makhan, ice-cream and milk. There is negative correlating between budgeted and actual sales of ghee which is not good for company.

- (vii) Least square straight line sales trend of DDC shows that the sales will be gradually increase in the future if present efforts are frequently being improved.
- (viii) There is positive correlation (i.e. 0.81) between the total budgeted sales and total actual sales in Rs. amount of the milk and milk products of the DDC.
- (ix) In the year 2058/059, 2059/060, 2060/061 there are losses in DDC. From the year 2061/062 there has been achievement of profit. The accumulated loss is such big that these small amounts of profit is not enough to fulfill them although it is a positive signal. There must be review in sales planning, control of cost etc.
- (x) The expenses made for promotion or advertising is less and also it has not been used effectively. The promotional expense is about 4 to 5 percent of the total selling expense. Promotional works are mostly located in Kathmandu valley only. In the other urban cities, promotional works are less than required.
- (xi) The effectiveness of sales plan in DDC is just satisfactory. It can be seen from P/L of the company, the variances between the Budgeted sales and the actual sales of milk and milk products. Sales planning must be more effective than it is in current situation. The effectiveness of sales plan can only help overall profit planning and overall development of corporation.



## **CHAPTER - FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

We know that Nepal is a least developed and poor country. Nepal is also called as agricultural country. More than 81 percent of the Nepalese people rely on agriculture. Poultry farming Fishery, bee keeping, cattle farming etc are main areas of agriculture. Due to the geographical feature of our country, cattle farming can be promoted from plain to high mountainous area. To promote the living standard of the people and fulfill the basic needs, cattle farming are playing an important role in the country. Keeping this fact in mind, the government of Nepal had set up the Dairy Development Corporation DDC, established under the corporation act in 1969 or (B.S 2026).

The DDC is a public enterprises created with the aim to increase the milk products on the rural areas by collecting available quantity of milk, process and distribute it to the urban population at social acceptable prices as a commercially viable operation. In the early days or years of its existence DDC was fulfilling its objectives as an agent of rural development and suppliers of dairy products to the urban population but its operations were commercially not viable and as a result losses were accumulated.

Comprehensive profit planning and control or budgeting continuous to be of prime importance in virtually all organization. Profit plans can be broadly divided into two groups as functional plan and financial plan. Functional plan includes sales plan, production plan, raw materials plan, direct labour plan and expenses plan, financial plan includes cash flow plan, capital expenditure plan projected income statement and projected balance sheet. For the smooth operation of the any enterprises comprehensive profit planning and control should be strongly applied, it is one of the most important management tools use to plan and control a business.

Sales plan is the first foundation of the profit plan. It is like as the "nerve center" of the human being. The sales plan should be worked out on a sound and reasonably detailed basis as all the other budgets are dependent upon the sales budget. It should reflect seasonal influences and any anticipated irregularities in sales. It should be broken down not only into time periods but also into geographical or areas of responsibility by the use of sales quotas. The sales plan should be realistic, prepared by the well-skilled planner, who have knowledge about the marketing and applied the statistical knowledge about the marketing and applies the statistical tools properly. A comprehensive sales plan include two separate but related plans the strategic and tactical sales plan and identified the component of the comprehensive sales plan.

The present study has been analyzed and examined the degree of application profit planning (sales plan) and its effectiveness in Nepalese PEs with the special reference of Dairy development Corporation in Nepal.

For the purpose of analyzing 7 years long term budgets data from FY 2058/059 to 2064/065 and a short term budget data 2062/063 of dairy product has been taken. Data have been collected from sources, primary and secondary. Primary data are collected with the help of staffs interview and structured questionnaire. To analyze and examine the collected data several statistical methods or tools have been used as: percentage method, arithmetic mean, standard deviation, coefficient of variation, correlation, regression analysis, least square analysis. Similarly, financial tools such as variance analysis have also been used according to their need.

Related literatures have been reviewed which consists about books, report, periodical articles and government official publication etc and 6 dissertations. A general concept had been given in conceptual; framework. This research paper consists of five main chapters.

- (i) Introduction
- (ii) Review of Literature
- (iii) Conceptual Revised.

- (iv) Review of Previous Research Work.
- (v) Research Methodology.
- (vi) Data Presentation & Analysis.
- (vii) Summary Conclusion & Recommendations

Various internal (management problems) and external (political, economical) problems has suffered Nepalese public and private enterprises in formulating and implementation profit plans. DDC set its financial plans according to Nepal Government plans and policies. However, the lower level management as well as most of the top-level management is unaware about such specific goals. DDC has only the practice of setting long and short term plan sales, production and collecting milk. In general, PEs has a little more practice of formulating and implementing profit plans. Although Nepalese PEs has to face more problems in formulating and implementations profit plans.

## **5.2 Conclusions**

In Nepalese manufacturing PEs goal and objectives are written but not adequate and are not properly follow up the development of the enterprise. Without goals and objectives there is no basic foundation for planning. Without planning there is no fulfillment of goals and objectives. Their goals are generally set in accord to Nepal government's plan. But most of the managers are unaware of it. So these specific plans are not achieved as desired. DDC has not been clearly defining its main objectives in annual goals or Budgeted for achieving the basic objectives. There is no defined such operational as expansion and contraction of product line, geographic areas, share of market growth of trends etc all the departmental goals and Budgeted are fixed in paper but not in action.

DDC has not followed participatory management, even middle level of management are not participated in policy making. Only top level of management is directly involved in policy making. The organization pattern of DDC is divided in various department and sub-department and various managers are involved in it as departmental managers. The philosophy of PPC is each organization should be divided in various departments and branches each department of responsibility managers have to given the authority to

determine own departmental objectives, goals, budgeted accord to organizational destination. But the (project) managers of DDC have not got enough authority to determine their own objectives, destination and goals. The Nepalese manufacturing PEs plans are prepared on ad-hoc basis, which is also applicable incase of DDC without the analysis of environment the objectives are set by the DDC, which are not suitable or appropriate.

Like in other PEs in Nepal, there is only annual Budgeted is supplied by the top management for the major department. There is no details and formal guidelines to the lower level management or departmental manager for the purpose of developing profit plan which also seen is DDC. Proper communication is lacking between the top order and lower order. Interference in day to day activities is less and high interference in long term policies from the board of directors. As manpower is the most important resources for any enterprises for achieving enterprise's goal and objectives the responsibilities and duties of employees in DDC, are adequately defines but there is lack of self-commitment of employees towards the organization process. There is lack of research and development and growth of sales due to lack of proper planning and adequate budget.

The preparation of sales budget is just satisfactory. There is no coordination between the various departments sales forecast marketing plan, adverting plan etc are the main component of sales budget. The demand of milk and milk product in urban areas of Kathmandu valley is very high than supply of milk and its products. Supply is insufficient in compare to the demand. Except of the milk supply, for other milk products, the sales plan is rarely satisfactory. There is no systematic and realistic sales plan. There is neck to neck competition between other emerging dairy product industries and DDC, in the valley and other parts of country as well. So for better sales, advertising should be effective DDC should invest on more advertising strategies.

The project has not prepared any plan to encourage the milk producers. There is conflict between DDC and milk producer farmer as well as other milk collecting co-operative agencies. Farmers are not satisfied with the mark prices of milk. Sales planning are a primary plan of profit planning, other planning depends upon sales plan DDC mostly

depends on production plan. For generating more profit sales planning with effective advertisements are most. But DDC is mostly focused on the production planning.

The sales plan are prepare on traditional and ad-hoc basis due to lack of skilled and expert planners. Therefore they are unable to forecast the future accurately which result the planning section to be poor. It can be concluded that DDC's performances is satisfactory. Some positive indications are being observed. But there are lots of areas to be kept in mind and improved.

### **5.3 Recommendations**

In the course of the research work, of sales planning in DDC in Nepal, many weakness, and different measures to be implemented by DDC for its development, progress and improvement were found and they have been recommended here. These recommendations are based on study and hoped that these will prove to be useful to the management of the corporation and other who are concerned with it.

- (i) Now the time has changed, so DDC should be operated in commercial basis. It should revised and make a study of its products and if there is any loss-oriented product, that should be promoted, advertised , if positive result is not obtained then dropped out. DDC should be revising the price of its product.
- (ii) Corporation should develop the profit planning process systematically. There should be effective planning of substantive plan and financial plan to achieve the goals and objectives of the enterprise. it may be impossible without long-term and short term planning.
- (iii) There must be communication, co-ordination and participation of different levels of management as well as other employees in formulation and evaluation of enterprises goal and objectives.
- (iv) Only top level managers should not be involved in decision making, there must be the participation of lower level personnel too. Decision making process is a group effort or an integrated process.

- (v) The performance evaluation should be established in DDC.
- (vi) Government should not interfere on DDC. Government should give autonomy responsibility and authority to the management of DDC. It is always seen that the board members of corporations are changed with the change in government that should be avoided.
- (vii) DDC should consider demand. Market study while making the plan. It should also consider the price; supply and policies of other private dairies DDC should attract the booth centers and consumers towards its products.
- (viii) The enterprise should define its goal and objectives clearly among the different levels of management. The management should select the goals and objectives on the basis of their needs.
- (ix) The duties and responsibilities of the employees should be defined on a clear-cut way. It would be better that the right person in proper place can perform the work effectively.
- (x) Monitoring and evaluating system should be scientific, regular and appropriate. Highly interfering policy should be avoided. Punishment and rewarding system must be continuously followed with non-ambiguously according to their performance.
- (xi) For the better planning and budgeting process (Task) persons having adequate practical and theoretical knowledge about budgeting profit planning and control should be appointed in planning and budgeting section. Training workshops and other programs should be held time to time to provide knowledge about PPC (Especially sales strategies) to the managers and other employees.
- (xii) DDC should cut down the unproductive expenses.
- (xiii) DDC should consider the sales plan on the time of planning production.

- (xiv) The sales manager should be appointed a well trained, qualified and, having knowledge of market study.
- (xv) To develop the annual sales plan, to management must take decision about product line development and marketing activities. It is recommended that the policies must respond to such issues as the following that which products should be dropped? What type of modifications should be made on packing? Is quality maintained is being good or not? These different policy decisions about both the long-term and short term sales plan will usually have a major effect in plan in others of the project, such as plant capacity, financing, territorial expansion and research.
- (xvi) There is neck-to-neck competition with the private dairies so proper advertising campaigns, publicities, product varieties or other promotional tools should be effective for achieving goals and objectives of DDC.
- (xvii) Systematic periodic performance report in detailed should be prepared by DDC by assigned responsibilities for accomplishing the planning objectives.
- (xviii) Sales achievement is too below the sales Budgeted. Necessary steps should be taken to those products sales and marketing which have negative correlation. A systematic approach of profit planning is needed.
- (xix) Market studies on demand supply and pricing should be carried out. The cost of milk production should be assured research and development unit of DDC should be strengthened and enabled to carry out such studies.
- (xx) To meet the desired sales Budgeted, DDC should try to increase collection centers, sales centers and media support (i.e. advertising) for publicity of its products. DDC should be ready to face the neck-to-neck competition from the private dairies and international milk products. It is possible if government, board of directors of DDC, and all the staffs come together and make a commitment for the upliftment of DDC.

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## APPENDIX - I

### Questionnaire

This questionnaire has been prepared for conducting a study titled "Sales Planning in Nepalese Public Enterprises" as a partial fulfillment for the degree of Master in Business Studies. Please choose the best which you think is the appropriate on your opinion.

#### Personal Detail :

Name :

Post (Please specify the field) :

1. Are the goals/objectives of DDC definite?
  - (a) Yes ( )
  - (b) No ( )
2. The goal/objectives of DDC definite?
  - (a) Top level management ( )
  - (b) Middle level management ( )
  - (c) Lower level management ( )
  - (d) All of the above ( )
3. Does the board of directors interfere in the following policies?
  - (a) Yes ( )
  - (b) No ( ), If yes to what extent?
 

Day to day transaction( )	Weekly ( )
Monthly ( )	Quarterly ( )
Long term policies ( )	
4. Please rank to what extent do you think the following objectives are achieved?

Objectives	Min1	2	3	4	Max5
a. Profit maximization					
b. Share price maximization					
c. Sales maximization					
d. Value maximization					

5. Duties and responsibilities of employee :
  - (a) Well defined ( )
  - (b) Ambiguously define ( )
  - (c) Inadequately defined ( )
  - (d) Not defined at all ( )
  - (e) Unknown ( )

6. Rank the following operational activities of sales plan in DDC. (5 for top priority and 1 for least priority)

<b>Operational activities</b>	<b>Min1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Max5</b>
a. Information system					
b. Technological use					
c. Trained sales force					
d. Managerial knowledge of market					
e. Effective sale strategy					
f. Quality of product					
g. Political system					
h. Motivation of employees					
i. Location of sales center					

7. Who is responsible in preparing sales budget?

Chief executive ( )

Marketing manager ( )

Project manager ( )

All of them ( )

8. Who evaluates/monitor the sales budget?

Chief executive ( )

Marketing manager ( )

Both of them ( )

9. Which one is given more priority and less priority in preparing sales budget?

(Please rank them)

<b>Components</b>	<b>Min1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Max5</b>
Sales forecast					
The advertising plan					
Marketing plan					
Selling expense budget					

10. What promotional media's does your organization mainly use?
- (a) Paper media ( )                      (b) Radio ( )
- (c) Television ( )                      (d) Bill board ( )
- (e) All of them ( )

11. What major steps should be taken to improve the performance of Co?

State the working environment of your organization.

Comment, suggestion for the overall development of the DDC

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## APPENDIX - II

### Milk Sales Variance (in lit)

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	59741000	55645157	4095843	6.86	Unfavourable
2059/060	59812000	56357176	3454824	5.78	Unfavourable
2060/061	61961000	57764000	4197000	6.77	Unfavourable
2061/062	64217000	60276000	3941000	6.14	Unfavourable
2062/063	65495000	57492000	8003000	12.22	Unfavourable
2063/064	69050000	59317000	9733000	14.10	Unfavourable
2064/065	61481000	56983000	4498000	7.32	Unfavourable

### APPENDIX - III

#### Makhan Sales Variance (in kgs)

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	358500	300192	58308	16.264	Unfavourable
2059/060	361700	285314	76386	21.119	Unfavourable
2060/061	351800	302000	49800	14.156	Unfavourable
2061/062	311000	287000	24000	7.717	Unfavourable
2062/063	318000	232000	86000	27.044	Unfavourable
2063/064	288000	170000	118000	40.972	Unfavourable
2064/065	195500	189600	5900	3.018	Unfavourable

**APPENDIX - IV**  
**Curd Sales Variance (in lit)**

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	980000	890538	89462	9.13	Unfavourable
2059/060	889500	981575	92075	10.35	Favourable
2060/061	935000	1006000	71000	7.59	Favourable
2061/062	951000	1057000	106000	11.15	Favourable
2062/063	1101000	1102000	1000	0.09	Favourable
2063/064	1182000	985000	197000	16.67	Unfavourable
2064/065	850150	904000	53850	6033	Favourable



## APPENDIX - V

### Cheese Sales Variance (in kgs)

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	182750	146785	35965	19.68	Unfavourable
2059/060	227400	140038	87362	38.42	Unfavourable
2060/061	225000	145000	80000	35.56	Unfavourable
2061/062	181000	150000	31000	17.13	Unfavourable
2062/063	184000	161000	23000	12.50	Unfavourable
2063/064	241000	143000	98000	40.66	Unfavourable
2064/065	230800	184000	46800	20.28	Unfavourable

**APPENDIX - VI**  
**Ghee Sales Variance (in kgs)**

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	958038	479904	478134	49.91	Unfavourable
2059/060	736000	709786	26214	3.56	Unfavourable
2060/061	752000	931000	179000	23.80	Favourable
2061/062	899000	842000	57000	6.34	Unfavourable
2062/063	943000	704000	239000	25.34	Unfavourable
2063/064	917000	644000	273000	29.77	Unfavourable
2064/065	983100	913000	70100	7.13	Unfavourable

## APPENDIX - VII

### Paneer Sales Variance (in kgs)

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	31000	30660	340	1.10	Unfavourable
2059/060	39000	29500	9500	24.36	Unfavourable
2060/061	43360	49000	5640	13.01	Favourable
2061/062	48000	62000	14000	29.17	Favourable
2062/063	67000	70000	3000	4.48	Favourable
2063/064	132000	50000	82000	62.12	Unfavourable
2064/065	120960	83000	37960	31.38	Unfavourable

## APPENDIX - VIII

### Ice-cream Sales Variance (in ltrs)

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	50266	32750	17516	34.85	Unfavourable
2059/060	38500	27620	10880	28.26	Unfavourable
2060/061	35000	31000	4000	11.43	Unfavourable
2061/062	39000	32000	7000	17.95	Unfavourable
2062/063	42000	38000	4000	9.52	Unfavourable
2063/064	81600	39000	42600	52.21	Unfavourable
2064/065	100700	85000	15700	15.59	Unfavourable

**APPENDIX - IX**  
**Cream Sales Variance (in ltrs)**

<b>Fiscal year</b>	<b>Budgeted Sales Amt.</b>	<b>Actual Sales Amt.</b>	<b>Variance Amount</b>	<b>% of Variance</b>	<b>Remarks</b>
2058/059	28000	33000	5000	17.86	Unfavourable
2059/060	41000	31000	10000	24.39	Unfavourable
2060/061	38000	27500	10500	27.63	Unfavourable
2061/062	32000	24700	7300	22.81	Unfavourable
2062/063	28000	21500	6500	23.21	Unfavourable
2063/064	39000	53700	14700	37.69	Unfavourable
2064/065	22800	17300	5500	24.12	Unfavourable

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## APPENDIX - X

### Calculation of Mean, S.D., C.V. and Correlation Coefficient of DDC's Budgeted and Actual Milk Sales (in Lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	597.41	556.45	-33.6714	-20.4559	1133.765	418.4421	688.7779
2059/060	598.12	563.571	-32.9614	-13.3349	1086.456	177.8184	439.5359
2060/061	619.61	577.64	-11.4714	0.734143	131.5937	0.538966	-8.42167
2061/062	642.17	602.76	11.08857	25.85414	122.9564	668.4367	286.6855
2062/063	654.95	574.92	23.86857	-1.98586	569.7087	3.943629	-47.3996
2063/064	690.5	593.17	59.41857	16.26414	3530.567	264.5223	966.3921
2064/065	614.81	569.83	-16.2714	-7.07586	264.7594	50.06775	115.1343
	4417.57	4038.341			6839.806	1583.77	2440.705

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 631.081$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{6839.726}{7}} = \sqrt{977.1037} = 31.258$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 4.95\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{2440.733}{\sqrt{6839.726 \times 1583.795}} = 0.741$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 576.905$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{1583.795}{7}} = 15.041$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 2.607\%$$

The above result shows that there is positive correlation between budgeted and actual milk sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.741^2}{\sqrt{7}} = 0.1149$$

6 P.E. = 0.6894; Hence it is significant.

## APPENDIX - XI

### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Makhan Sales (in lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	3.59	3.00	0.46	0.48	0.22	0.23	0.22
2059/060	3.62	2.85	0.50	0.33	0.25	0.11	0.16
2060/061	3.52	3.02	0.40	0.50	0.16	0.25	0.20
2061/062	3.11	2.87	-0.01	0.35	0.00	0.12	0.00
2062/063	3.18	2.32	0.06	-0.20	0.00	0.04	-0.01
2063/064	2.88	1.70	-0.24	-0.82	0.06	0.68	0.20
2064/065	1.96	1.90	-1.17	-0.63	1.36	0.39	0.73
	21.85	17.66			2.04	1.82	1.50

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 631.081$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{2.0401}{7}} = \sqrt{0.2914} = 0.539$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 17.27\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{2440.733}{\sqrt{6839.726 \times 1583.795}} = 0.793$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 2.522$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{1583.795}{7}} = 0.5093$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 20.19\%$$

The above result shows that there is positive relation between budgeted and actual milk sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.793^2}{\sqrt{7}} = 0.0946$$

Here 'r' is greater than P.E. it is significant.

## APPENDIX - XII

### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Curd Sales (in lakhs)

Fiscal year	Budgeted d (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	9.80	8.90	-0.04	-0.99	0.00	0.99	0.04
2059/060	8.90	9.82	-0.95	-0.08	0.89	0.01	0.07
2060/061	9.35	10.06	-0.49	0.17	0.24	0.03	-0.08
2061/062	9.51	10.57	-0.33	0.68	0.11	0.46	-0.22
2062/063	11.01	11.02	1.17	1.13	1.37	1.27	1.32
2063/064	11.82	9.85	1.98	-0.04	3.92	0.00	-0.09
2064/065	8.50	9.04	-1.34	-0.85	1.80	0.73	1.14
	68.89	69.26			8.33	3.48	2.18

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 9.840$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{8.3285}{7}} = 1.0907$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 11.08\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{2440.733}{\sqrt{6839.726 \times 1583.795}} = 0.405947$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 9.8892$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{3.47747}{7}} = 0.7048$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 7.1299\%$$

The above result shows that there is positive relation between budgeted and actual milk

surd sales data. Calculation of P.E. =  $0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.41239^2}{\sqrt{7}} = 0.21158$



### APPENDIX - XIII

#### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Cheese Sales (in lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	1.8270	1.4678	-0.2757	-0.0605	0.0760	0.0037	0.0167
2059/060	2.2740	1.4000	0.1713	-0.1283	0.0293	0.0164	-0.0220
2060/061	2.2500	1.4500	0.1473	-0.0783	0.0217	0.0061	-0.0115
2061/062	1.8100	1.5000	-0.2927	-0.0283	0.0857	0.0008	0.0083
2062/063	1.8400	1.6100	-0.2627	0.0817	0.0690	0.0067	-0.0215
2063/064	2.4100	1.4300	0.3073	-0.0983	0.0944	0.0097	-0.0302
2064/065	2.3080	1.8400	0.2053	0.3117	0.0421	0.0972	0.0640
	14.7190	10.6978			0.4183	0.1405	0.0038

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 2.1027$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{0.4177}{7}} = 0.2442$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 11.61\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{0.0038625}{\sqrt{0.4177 \times 0.14047}} = 0.01594$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 1.5282$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{0.14047}{7}} = 0.14165$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 9.26\%$$

The above result shows that there is positive relation between budgeted and actual cheese sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.01594^2}{\sqrt{7}} = 0.25487$$

Here 'r' is greater than P.E. (0.01594 < 0.25487). It is not significant.

## APPENDIX - XIV

### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Ghee Sales (in lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	$xy$
2058/059	9.5800	4.7990	0.7399	-2.6637	0.5474	7.0954	-1.9708
2059/060	7.3600	7.1000	-1.4801	-0.3627	2.1908	0.1316	0.5369
2060/061	7.5200	9.3100	-1.3201	1.8473	1.7428	3.4125	-2.4387
2061/062	8.9900	8.4200	0.1499	0.9573	0.0225	0.9164	0.1435
2062/063	9.4300	7.0400	0.5899	-0.4227	0.3479	0.1787	-0.2493
2063/064	9.1700	6.4400	0.3299	-1.0227	0.1088	1.0459	-0.3373
2064/065	9.8310	9.1300	0.9909	1.6673	0.9818	2.7798	1.6520
	61.8810	52.2390			5.9420	15.5603	-2.6638

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 8.840$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{5.9419}{7}} = 0.921$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 10.418\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{-1.86672}{\sqrt{5.9419 \times 13.7035}} = -0.2068$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 1.5282$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{0.14047}{7}} = 0.14165$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 18.74\%$$

The above result shows that there is positive relation between budgeted and actual ghee sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.2068^2}{\sqrt{7}} = 0.244035$$

Here 'r' is greater than P.E. (-0.2068 < 0.244035). It is not all significant.

## APPENDIX - XV

### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Paneer Sales (in lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	31.00	30.66	-37.76	-22.79	1425.82	519.45	860.60
2059/060	39.00	29.50	-29.76	-23.95	885.66	573.67	712.79
2060/061	43.36	49.00	-25.40	-4.45	645.16	19.82	113.07
2061/062	48.00	62.00	-20.76	8.55	430.98	73.08	-177.47
2062/063	67.00	70.00	-1.76	16.55	3.10	273.86	-29.13
2063/064	132.00	50.00	63.24	-3.45	3999.30	11.91	-218.27
2064/065	120.96	83.00	52.20	29.55	2724.84	873.12	1542.44
	481.32	374.16			10114.85	2344.90	2804.04

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 68.76$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{10114.8240}{7}} = 38.01$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 55.27\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{-2804.0384}{\sqrt{10114 \times 2344.88}} = 0.5757$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 53.45$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{2344.88}{7}} = 18.3025$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 34.241\%$$

The above result shows that there is positive relation between budgeted and actual paneer sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.5757^2}{\sqrt{7}} = 0.17044$$

## APPENDIX - XVI

### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Ice-Cream Sales (in lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	50.27	32.75	-5.03	-8.02	25.29	64.27	40.32
2059/060	38.50	27.62	-16.80	-13.15	282.08	172.85	220.81
2060/061	35.00	31.00	-20.30	-9.77	411.89	95.40	198.23
2061/062	39.00	32.00	-16.30	-8.77	265.53	76.86	142.86
2062/063	42.00	38.00	-13.30	-2.77	176.76	7.66	36.79
2063/064	81.60	39.00	26.30	-1.77	691.95	3.12	-46.48
2064/065	100.70	85.00	45.40	44.23	2061.60	1956.55	2008.39
	387.07	285.37			3915.10	2376.71	2600.91

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 55.295$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{3915.1}{7}} = 23.649$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 42.468\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{2600.902}{\sqrt{279.332 \times 839.272}} = 0.61889$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 40.767$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{2376.105}{7}} = 18.423$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 45.1909\%$$

The above result shows that there is positive relation between budgeted and actual ice cream sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.8527^2}{\sqrt{7}} = 0.0375$$

## APPENDIX - XVII

### Calculation of Mean, S.D., Coefficient of Variation and Correlation of DDC's Budgeted and Actual Cream Sales (in lakhs)

Fiscal year	Budgeted (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	28.00	33.00	-4.69	3.19	21.96	10.15	-14.93
2059/060	41.00	31.00	8.31	1.19	69.13	1.41	9.86
2060/061	38.00	27.50	5.31	-2.31	28.24	5.36	-12.30
2061/062	32.00	24.70	-0.69	-5.11	0.47	26.16	3.51
2062/063	28.00	21.50	-4.69	-8.31	21.96	69.13	38.96
2063/064	39.00	53.70	6.31	23.89	39.87	570.53	150.82
2064/065	22.80	17.30	-9.89	-12.51	97.73	156.61	123.71
	228.80	208.70			279.35	839.33	299.63

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = 32.68$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum x^2} = \sqrt{\frac{279.332}{7}} = 6.317$$

$$\text{C.V.} = \frac{\sigma}{\bar{X}} \times 100 = 19.32\%$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{299.659}{\sqrt{279.332 \times 839.272}} = 0.61889$$

#### Actual Data

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = 40.767$$

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum y^2} = \sqrt{\frac{2376.105}{7}} = 18.423$$

$$\text{C.V.} = \frac{\sigma}{\bar{Y}} \times 100 = 45.1909\%$$

The above result shows that there is positive relation between budgeted and actual ice cream sales data. Calculation of Probable Error (P.E.) of Karl Pearson's Coefficient of Correlation.

$$\text{Calculation of P.E.} = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-0.6188^2}{\sqrt{7}} = 0.1573$$

## APPENDIX - XVIII

### Calculation of Mean, S.D., Coefficient of Total Actual Sales and Total Budgeted Sales of Milk and Milk Products (Rs. In lakhs)

Fiscal year	Budgeted d (X)	Actual (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$X^2$	$Y^2$	xy
2058/059	15611.35	13483.99	-1709.58	-1899.84	2922673.55	3609408.31	3247941.22
2059/060	16722.68	14847.72	-598.25	-536.11	357906.48	287418.53	320731.90
2060/061	16405.02	15519.11	-915.91	135.28	838896.36	18299.52	-123900.77
2061/062	15959.06	15454.48	-1361.87	70.65	1854697.68	4990.82	-96210.48
2062/063	17393.45	15358.10	72.52	-25.73	5258.74	662.25	-1866.18
2063/064	19281.64	15896.63	1960.71	512.80	3844372.50	262959.44	1005442.22
2064/065	19873.33	17126.81	2552.40	1742.98	6514731.17	3037964.34	4448766.23
	121246.53	107686.84			16338536.48	7221703.21	8800904.15

#### Budgeted Data

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = \frac{1212.53}{7} = 17320.932$$

$$\text{Mean } (\bar{Y}) = \frac{\sum Y}{n} = \frac{107686.84}{7} = 15383.834$$

$$\text{Correlation } (r_{xy}) = \frac{\sum xy}{\sqrt{\sum x^2 \cdot \sum y^2}} = \frac{8800550.854}{\sqrt{16337932 \times 7221688.371}} = 0.810$$

The above result shows that there is highly positive correlation between total budgeted and total actual sales in DDC.

## APPENDIX - XIX

### Milk and Milk Products Tactical (Short-Term) Plan 2064/065

S.No.	Month	Milk (Ltrs)	Makhan (Kgs)	Curds (Ltrs)	Cheese (Kgs)	Ghee (Kgs)	Paneer (Kgs)	Ice Cream (Ltrs)
1	Baisakh	5457000	28900	110000	15300	78500	5400	3800
2	Jestha	5132000	35800	95000	16000	78000	5350	4000
3	Ashad	5672000	30200	96000	14800	81500	5200	3700
4	Shrawan	5832000	24700	93000	15400	77000	5050	3300
5	Bhadra	6122000	23300	89000	15500	76400	5100	3800
6	Aswin	6831000	31700	90000	147000	78000	5600	3850
7	Kartik	5324500	28300	93500	16200	85500	6300	3650
8	Mangsir	5124500	28300	93500	16200	85500	6300	3200
9	Poush	6847000	28200	90500	15300	72100	4400	2800
10	Magh	4853000	19200	91000	16000	82000	6100	3000
11	Phalgun	4272000	16900	96000	16200	78000	6300	3350
12	Chaitra	4028000	18000	76000	13500	70000	5650	3550

## APPENDIX - XX

### Simple Regression Analysis of Total Actual Sales and Total Budgeted Sales (Rs. in Lakh)

F/Y	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
2058/059	15611.35	13483.99	243714248.8	181817986.3	210503287.3
2059/060	16722.68	14847.72	279648026.4	220454789.2	248293670.3
2060/061	16405.02	15519.11	269124681.2	240842775.2	254591309.9
2061/062	15959.06	15454.48	254691596.1	238840952.1	246638973.6
2062/063	17393.45	15358.10	302532102.9	235871235.6	267130344.4
2063/064	19281.64	15896.63	371781641.1	252702845.4	306513096.9
2064/065	19873.33	17126.81	394949245.3	293327620.8	340366747
Sum	121246.53	107686.84	2116441542	1663858204.6	1874037429.4

$$a = 107686.84/7 = 15383.834$$

$$b = 1874037429.4/2116441542 = 0.8854$$

We get the regression line:

$$Y_c = a + bX \quad Y_c = 15383.834 + .8854X$$

Table 4.22 indicates that 'a' and 'b' are constant values which are 15383.834 and 0.8854 respectively. 'X' is the independent variable, which represents budgeted sales and 'Yc' is the dependent variable that is actual sales amount. 'Yc' depends on the value of 'X'



## APPENDIX - XXI

### Trend Lines of Sales of Milk (in Lakh)

F/Y	X	Y	X <sup>2</sup>	XY
2058/059	556.45	-3	9	-1669.35
2059/060	563.57	-2	4	-1127.14
2060/061	577.64	-1	1	-577.64
2061/062	602.76	0	0	0
2062/063	574.92	1	1	574.92
2063/064	593.62	2	4	1187.24
2064/065	569.83	3	9	1709.49
Sum	4039.749	0	28	97.52

Where y = actual sales of milk, x = time

Fiscals year 2060/061 is the assumed as base year therefore the value of x or mid time is zero, negative before the base year and positive after the base year.

$$Y = a + bx,$$

The calculated,

$$a = \frac{\sum y}{n} = 576.97$$

$$b = \frac{\sum xy}{\sum x^2} = 3.48$$

Substituting the value in straight line equation, we have,

$$y_c = a + bx$$

$$y = 576.97 + 3.48x$$

## APPENDIX - XXII

### Sales Forecast Value of Milk Sales (in lakhs)

F/Y	a	b	x	Trend value
2058/059	576.97	3.48	-3	566.53
2059/060	576.97	3.48	-2	570.01
2060/061	576.97	3.48	-1	573.49
2061/062	576.97	3.48	0	576.97
2062/063	576.97	3.48	1	580.45
2063/064	576.97	3.48	2	583.93
2064/065	576.97	3.48	3	578.41
2065/066	576.97	3.48	4	590.89
2066/067	576.97	3.48	5	594.37
2067/068	576.97	3.48	6	597.85

The trend line in table 4.22 shows that there will be positive sales figure for future. The sales of milk is in increasing trend for the coming years. If the situation favours, the sales performance of milk is definitely going to be good.