

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the study

Nepal is a fascinating country lying in the laps of the Himalaya. The exotic land is blessed with an abundance of unspoiled natural beauty. The amazing altitude variation of the corresponds to the range of inexhaustible flora and fauna. The spirit of the diverse ethnic group, their culture, cousin and dialects pulsate in the natural surroundings of the majestic Himalaya, rugged mountains, lush valleys and the dense tropical forests. The astonishing historical monuments, art and architecture, the colorful festivals and a distinctive combination of ancient and modern are common in the cities. Nepal offers the fascination of a totally different world.

Nepal is an ‘agricultural country’. Keeping cattle likes cow, buffalo, goat etc has been tradition of most of the household in the country. It was not taken as the source of income in the early days. But with the time, milk and the product of the milk are taken as the source of income or livelihood.

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 2004, the country’s per capita income was US \$ 240. 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 is 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 Nepal government requested assistance from FAO of the United Nation in trying to better utilization of milk produces in the mountain region in the country.

To decentralize the milk collection processing and supplying of milk and milk products throughout the Federal Democratic Republic of Nepal to the benefit of both the milk producing farmers and consumers scattered throughout the Federal Democratic Republic of Nepal altogether seven milk supply scheme were established on phase wise basis. They are as Kathmandu Milk Supply Scheme (KMSS), Biratnagar Milk Supply Scheme (BMSS), Hetauda Milk Supply Scheme (HMSS), Lumbini Milk Supply Scheme (LMSS), Madhya Paschimanchal Milk Supply Scheme (MPMSS), Pokhara Milk Supply Scheme (PMSS), Milk Product Production and Sales Supply Scheme (MPPSSS).

In a view of national welfare, the objectives of the corporation is to bring timely progress in the collection, sterilization, conservation, sales and distribution of dairy and dairy products with modern and scientific method for the economic enlistment of the producer and protection of health of the consumer with more efficiency and readiness. [Corporation co-ordination Council, "Profile of PE's in Nepal" HGM June, 1978, p-87]

The DDC is a public enterprises created with the aim to increase the milk production, in the rural areas by collections and available quantity of milk, process and distribute it on the urban population at socially acceptable prices as a commercially viable operation. DDC's main objectives are:

- i. Bring improvement in production, collection, processing, preservation sales and distribution of milk and milk product in modern and scientific way.
- ii. Provide a reliable market outlet and fair price to milk producer.
- iii. Supply pasteurized milk and other dairy products to urban consumer at reasonable prices.
- iv. Organize, promote and extend milk collection, production processed milk and milk products to meet demand in urban areas.
- v. Promote and Organize milk product's association (MPAS)

Public enterprise have been universally establishing in most developed countries like the USA, Britain, and France as well as in developing countries like India, Nepal and Srilanka among others. Indeed, PE's have become important and seeming for developing countries.

Since the 19<sup>th</sup> and early 20<sup>th</sup> century the growth of PE's have indicated a significant change in economic social thinking among government. The concept was born out to two situations:

1. Lack of Private capital investment.
2. Lack of Skill and professional maturity among private entrepreneurs.

Thus, government policy makers have adopted the establishment of PEs as and instrument for social-economic development. Generally "PEs are autonomous bodies which are carried and manage by the government and which provide goods and services for a price and ownership with the government should be 51% or more to make an entity. Planning is the first function of management. It is performed continuously because the passage of

time demands both re-planning and making new plans. Moreover, current feedbacks often necessitate newly planned actions to:

- a) Current performance differences.
- b) Cope with unanticipated events, that are unfavourable and
- c) Take advantage of new developments.

Management planning is the process that includes the following five Phases:

1. Establishing enterprise objectives and goals.
2. Developing premises about the environment of the entity.
3. Making decisions about the courses of action.
4. Initiating actions to activate the plans and
5. Evaluating performance feedback for re-planning management planning provides the basis for performing the four other functions: Organizing, Establishing, Leading and Controlling.

Specially, planning means setting goals and picking out what appears to be the way to meet the goals.

“Sales plan is the first and most difficult plan to prepare. It is the starting point for the preparations of the comprehensive profit planning and control. All the other budgets are dependent upon the sales budgets. The sales budget is usually presented in both units and dollars of sales revenue. The preparation of sales budget is dependent upon the sales forecast. A variety of methods are used to forecast the sales for the budget period the actual sales for past periods serve as an excellent guide to forecasting future sales. The D.I system should be used to prepare and analyzing the actual sales by region, territories, salesman, types of customers etc.” [Arthur W. Holmes, Meier Robert A and Pabrt Donald F “Accounting for control Decisions” Texas am tin Business publishing 1970, p.687]

The sales planning process is a necessary part of PPC because:

- a) It provides for the basic management decisions about marketing and
- b) Based on that decision, it is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, most if all of the other parts of the overall profit plan also are unrealistic. The sales plan is the foundation for periodic planning in the firm; because practically all other enterprise planning is built on it. The primary source of cash is sales. The capital additions needed, the amount of expenses to be planned, the manpower requirements, and the production levels and other important operational aspects depend on the volume of sales.

A comprehensive sales plan includes two separate but related plans, the strategic and tactical sales plans. A comprehensive sales plan involves such management decisions as objectives, goals, strategies and premises. These translate into planning decisions about planned volume (Units or Jobs) of goods and services, prices, promotion and selling efforts.

### **Strategic and Tactical Sales Plans Compared:**

“In harmony with a comprehensive profit plan both strategic long term and tactical short-term sales plans must be developed. Thus the usual case is a 5-10 yr. Strategic sales plan and due a year tactical sales plan. Many sales and resources involving like spans of many years' basic strategic and major decisions that involve commitments of resources and long like spans are difficult to stop. Sometimes it may be helpful to view the development of due long range and short range sales plans as separate activities, however, they must be integrated because the short range sales plan should dovetail with the strategic long range plan in all major respects.” [ Glenn A. Welsch 5<sup>th</sup> e.d. op. cit. p. 173]

### **1.2 Public Enterprises at glance**

“Public Enterprise is an institution operating a service of an economic or social element, on behalf of the government but an independent legal entity, largely autonomous in its management though responsible to the public, through government equipped on the other hand with independent and separate funds of its own and the legal and commercial attributes of a commercial enterprise.” (Industrial Policy;1998: 7)

Nepal has agriculture based economy. Though more than 80 percent population makes its living from agriculture, the sector still has not been able to cater the needs of increasing population. The per capita income is merely US\$ 310.

Nepal had a late start in development. Industrialization started only after it got exposure in the world in 1951, after the democratic movement. For this purpose planned development was started in 1956 with the first five-year plan. Fifty years down the road since the execution of the first five-year plan, about 62 different public enterprises in manufacturing, financial and service, trading and public utility sector have been set up. But now there are only 36 on the scene as some of them closed and others were handed over to the private sector. Among them, there are 10 PEs in manufacturing sector. These public enterprises were set up with various social objectives, like creating employment opportunities, catering the people with quality goods and services, mobilizing resources. Apart from these, there were economic motives. They were supposed to contribute to the state coffers also besides their sustained growth.

Public enterprises in Nepal constitute a vital instrument for the socio-economic development of the country. It enjoys a strategic and crucial position in our mixed economy. They have been established in many sectors for the overall development of the country with different goals and objectives. Since 1956, Nepal has witnessed growth and development of public enterprises. Nepal Bank Limited, a commercial bank was the first public enterprise to have a separate legal entity in Nepal.

There has been a huge investment and government further eased this by thrashing new conducive policies. But still the process has not gained the desired momentum. Despite various attractive policies, the return on investment is not satisfactory. Overstaffing, low labor productivity and gross inefficiency in capital utilization plagued the performance of

state-owned enterprises. Out of 36 public enterprises, only 19 earned profit in the last fiscal year 2062/63. Besides, inability of state-owned enterprises to adapt to changing business environment has also been identified as another reason for poor performance. The government received just Rs.3.35 billion from the entire PEs which is around 5.62 percent of the equity investment it pumped into them. This shows how the government money goes down the drain. There could be various reasons behind, which need to be investigated so that corrective measures could be taken to improve their condition.

### **1.2.1 Role of Public Enterprises in Economic Development**

A rapid economic development requires huge expenditure on various sectors of the economy. The private sector is either unable to invest huge amounts or unwilling because the return from such investments may be uncertain or long delayed. Hence, economic development has to depend almost entirely on public enterprises. Public enterprises, therefore, play a vital role in economic development of a developing country like Nepal.

“Public enterprises promote economic development in the following ways:

- a. Economic Overheads:** Economic development is handicapped in underdeveloped countries on account of the lack of the necessary infrastructure. Economic overheads like the roads and railways, irrigation and power projects are essential for speeding-up economic development. Money for these things cannot come out of private sources. Public enterprises have to build up the economic overheads.
- b. Balanced Regional Growth:** It is considered desirable to bring about a balanced regional growth. Special attention has to be paid to the development of backward areas and underdeveloped regions. This requires huge amounts for which reliance has to be placed on public expenditure.

- c. Development of Agriculture and Industry:** Economic development is regarded synonymous with industrial development but agricultural development provides the base and has to be given top priority. Government has to incur lot of expenditure in the agricultural sector, e.g., on irrigation and power, seed farms, fertilizer factories, warehouses, etc., and in the industrial sector by setting up public enterprises like rubber industries, pharmaceutical factories, dairy processing industries, etc. All these enterprises are calculated to promote economic development.
- d. Exploitation and Development of Mineral Resources:** Minerals provide a base for further economic development. The government has to undertake schemes of exploration and development of essential minerals, e.g., coal and limestone. Public enterprise has to play its role here too.
- e. Subsidies and Grants:** The government gives grants to local authorities to induce them to incur some desirable expenditure. Subsidies have also to be given to encourage the production of certain goods especially for export to earn much-needed foreign exchange.” (Dewett & Varma; 1998: 475)
- f. Employment:** The PEs are contributing substantially to increase in employment in the country. Currently the number of employees in PEs is 31599. (Economic Survey; 2005 : 202)
- g. Revenue:** The major portion of government revenue is fulfilled by public enterprises. This revenue comes from sales, income, excise and other taxes. They now contribute large amounts of taxation revenue to the government.

Thus, public enterprises play a vital role in economic development of every country. It is required to create and maintain conditions essential for economic growth. It must improve climate for investment and provide incentives for savings. The public enterprises create the necessary environment for the expansion of private enterprise and initiative.

## **1.3 A Brief Review of Kathmandu Milk Supply Scheme**

### **1.3.1 Background and Introduction**

Dairy Development Corporation (DDC) was established in Shrawan 1, 2026 B.S. under Corporation Act 2021 B.S. Its main objectives are to provide guaranteed market and fair price to the rural milk producers and supplying hygienic pasteurized milk and milk products to the urban customers. Being a public enterprise, its other main purpose is to fulfill the social benefits rather than earning profit. Prior to the establishment of KMSS, a separate dairy development board was constituted in the year 2010/11 to carry out the dairy development activities in Nepal. It started milk collection, processing and marketing activities from 2014 B.S. KMSS is fully owned by the government.

To fulfill the objectives of the KMSS, six milk supply schemes have been established by KMSS all over the country.

Kathmandu Milk Supply Scheme (KMSS) is one of them. The oldest and largest milk production and distribution centre of Nepal is KMSS. It was established in 2033 B.S. at Lainchaur Kathmandu. In 2026 B.S. KMSS was kept under DDC. To meet the increasing demand of milk and milk products KMSS was expanded and established in Balaju, Kathmandu industrial estate under the aid of New Zealand government and HMG/N also provided fund for building construction. Building construction was started since Baishakh 19, 2030 and formally transferred to its own building premises in 2034 B.S.

KMSS provides qualitative pasteurized milk and milk products to the urban consumers of Kathmandu valley. The population of Kathmandu is being increased abnormally due to various reasons. Since large number of urban population is in Kathmandu, the demand of the milk is increasing day.

The milk and milk products of KMSS are highly demanded in the market due to high quality and hygienic and it is not being able to meet the demand.

KMSS could not purchase all the milk offered by farmers especially during the flush season. As a result, it has to impose Milk Holiday on certain days during the period. During the lean season KMSS buys skimmed milk powder to meet the consumer's demand.

### **1.3.2 Objectives of KMSS**

The Kathmandu Milk Supply Scheme has defined its objectives as follows:

- a) Provide a guaranteed market for milk to the rural farmers with fair price.
- b) Supply Pasteurized milk and milk products to urban consumers
- c) Develop organized milk collection system to meet increasing demand Pasteurized milk and milk products,
- d) Developed organized marketing system for milk and milk products.

### **1.3.3 Products Supplied by KMSS**

Products presently supplied by the KMSS and their brief introduction are presented below:

#### *i. Pasteurized Milk*

Milk collected from rural areas is standardized to contain 3% fat and 8% solids. Non fat (S.N.F.) and pasteurized by a HTST pasteurized. Milk is heated to 73 degree centigrade for 15 seconds and promptly cooled to 4-5 degree centigrade. KMSS also supplies pasteurized whole milk containing 5% fat and 8% SNF.

#### *ii. Dahi (Yogurt)*

Dahi is one of the best known and most popular fermented milk products consumed by section of the population through out the country and special ordinary. Dahi generally contains 3% fat, 8% SNF and 4% additional sugar. Special Dahi contains not less than 5% fat, 3% NNF and 4% additional sugar.

#### *iii. Butter*

It is the solidified fat of milk, obtained from cream usually by churning. It contains soluble vitamins A, D, E and K. It contains 80% common salt.

#### *iv. Panner*

Panner is one of the indigenous varieties of milk products obtained from fresh buffalo milk. It contains 70-71% moisture, 29-30% total milk solids and 13% milk fat.

v. *Ice-Cream*

It is a frozen dairy product having rich source of calcium phosphorus and other minerals. It contains 10% milk fat, 3.5% protein and 36% total solids.

vi. *Cream*

It is obtained from cow and buffalo milk. It contains 32% fat and not more than 0.13% literal acidity. It is heated at 77 degree centigrade for 15 minutes and cooled to 4 degree centigrade.

vii. *Yak-cheese*

Yak cheese is a product of high attitude of alpine region of Nepal obtained from Yak milk. It contains not more than 43% moisture and 2.5% if edible salt. It should not contain less than 45% milk fat in dry matter basis. It is considered-as a special variety of cheese in Nepal.

viii. *Kanchan Cheese*

Kanchan cheese is pure cow milk cheese manufactured in Pashupatinagar Ilam of eastern hilly region of Nepal. This is the best cheese in Nepal and has a good market. The chemical composition of Kanchan cheese is similar to yak cheese but is different in taste.

vii. *Buffalo cheese*

It is also hard variety of cheese obtained from buffalo milk. It is manufactured in Nagarkot cheese factory and occasionally in pokhara.

viii. *Skim Powder*

KMSS is also manufacturing skin milk power in Biratnagar. Milk is dried to by evaporation of its water contains only 3-4% moisture is contained powder their remaining part is solid not fat.

### **1.3.4 Milk Collection Program of KMSS**

KMSS has been collecting cow, buffalo and yak from 39 districts, Hetauda milk supply scheme also supports KMSS by supplying excess milk that is above their local requirements whereas Biratnagar milk supply scheme manufacture tamed milk powder from its excess milk supply scheme manufacture skimmed milk powder from its excess milk and that of other milk supply schemes as well KMSS has been playing a special role in contributing to uplift be economic status of Racial former. Thus dairy has been

recognized as an effective tool for power alleviation. In the fiscal year 2060/61 (2003/04) KMSS purchased about (approx) 200000 liters of milk per day from the formers.

### 1.3.5 Collection Network

The collection network under different milk supply schemes is presented low. Chilling centers (CC) established under the milk supply schemes are in operation across the country for chilling the milk collected from MPCCS.

**Table: 1.1**

**Collection Networks of KMSS**

<b>Scheme</b>	<b>MPCCs</b>	<b>CC</b>	<b>District Cover</b>
KMSS	552	15	7
BMSS	136	11	6
MMSS	163	8	4
LMSS	54	3	3
MWMSS	51	3	3
MPPSS	18	-	5
Total	875	39	28

### 1.3.6 Dairy products

KMSS produces three products i.e. pasteurized milk, butter and ghee. Milk is main product and others are by products. During the FY 2054/55 KMSS has collected 3,78,81,122 liters milk from chilling centers and other schemes and has produced 4,53,32,906 liters pasteurized milk, 7,85,315 k.g. butter and 1,75.22, k.g. ghee. Milk collection has increased by 14% and production has decreased by 5%. In this fiscal year, KMSS has sold 4, 25, 46,399 liters pasteurized milk daily (average). The table 1.1 shows the yearly production and sales of dairy products.

**Table: 1.2**

**Actual production and sales by product F/Y, 2054/55**

S.N.	Products	Unit	Actual production	Actual sales
1	Milk	Liter	4,53,32,906	4,25,6,399
2	Butter	k.g.	7,85,3 1 5	2,453
3	Ghee	k.g.	1,75,222	43,382

### 1.3.7 Production capacity

Production capacity and utilization is shown in table 1.2.

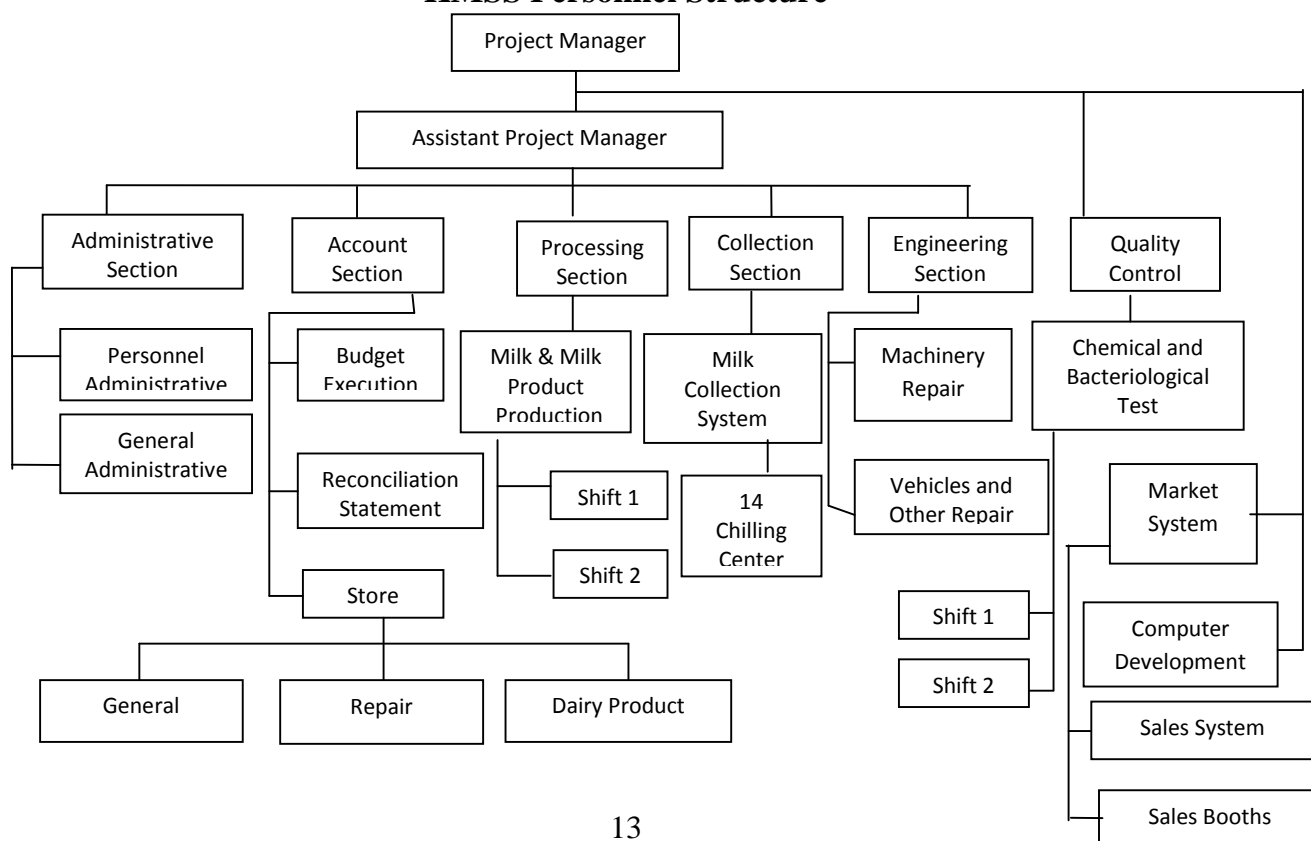
**Table: 1.3**  
**Production capacity F/Y, 2054/55**

Capacity	Liter
Molding capacity	1,35,000
Production capacity per hour	15,000
Induction capacity per shift (5 hours)	75,000
Maximum capacity utilization	1,30,000

### 1.3.8 Personnel structure

Since KMSS is the largest scheme of DCC. A large number of staffs are working. KMSS is run under the leadership of project manager. Project manager is chief who is appointed by general manager of KMSS. The staff working at higher level in ODC is appointed as project manager on the basis of seniority, qualification capability and performance. The Chart 1.1 shows the personnel chart of KMSS.

**Chart 1.1**  
**KMSS Personnel Structure**



## 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 an important role in fulfilling basic needs of the rural area's 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 2,60,00,000. Most of the people live 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 and milk products are important and necessary things. Therefore, the demand of milk and milk and milk product are ever increasing. So, DDC which was established in 2026 B.S under 2021 Corporation Act has lots of Challenges, duly to fulfill the demands of urban areas people for milk and milk products.

DDC's head office is in Lainchour, Kathmandu. Different 7 projects are being run in different cities of the country. Different dairy products are produced according to the demands of the market. Kathmandu Milk Supply Scheme is one of the projects of DDC. Its main role is to process and supply dairy product including milk to Kathmandu market. "Public enterprises were established to prepare the infrastructure service to promote the exports, to control the price in favor of the nation, to contribute in national

surplus, to provide employment opportunities, to provide required goods, services and contribute in national development as well as to assist in the country's economic advancement." KMSS is one of the unit of DDC is also establishment for this purpose. [8<sup>th</sup> plan HMG, National Planning Commission P.698]

Providing milk and its products to the consumers of Kathmandu market in fair cost and in effective way is the main objective behind the establishment of KMSS in Nepal. Most of the PE's produce only goods but are unable to obtain the required goods for production as well as sufficient market area and their products are in condition of damage. But, KMSS has no such problem in selling its dairy products. In recent days there has been establishment competition of DDC with the other dairies. So, DDC is the competition with the other dairies for the market as well as getting milk from the farmers. In the past it was a sole producer of milk and milk products (officially). There was a kind of monopoly and there was no problem in market (i.e. selling of its products). But, the scenario has been changed now. People in rural areas these days are encouraged in commercial cattle farming. They produce milk products and milk themselves and sell them in local market. So, One of the project of DDC is also facing some problems.

In this research work, researcher's aim will be trying to find the answer of the following questions.

- 1) To what extent is the process of sales planning followed by KMSS?
- 2) What is the situation of sales activities?
- 3) What is the effectiveness of KMSS in the implementation of Sales Plan?
- 4) What kind of problem is facing by KMSSs in Nepal and why is it unable to provide milk and its products properly?

### **1.5 Objectives of the study**

The objectives of this research are to study of the practice of sales planning system and its effectiveness, in the KMSS unit of the DDC.

The other objectives of the study can be stated as follows.

- a) To identify the sales planning process of KMSS.
- b) To examine the formulation and implementing procedure of sales plan in KMSS.

- c) To evaluate the variance between budgeted and actual sales of the KMSS.
- d) To examine the effectiveness of sales plan in KMSS.
- e) To suggest and recommend for improvement of the planning system in KMSS.

### **1.6 Significance of the Study:**

The present research work is the study of the practice and uses of sales budget on PPC in KMSS. The study will be significant in the following ways.

- ) It examines the sales budget applied by the KMSS.
- ) It explores the problems of its preparation in real practice.
- ) It will be useful to be potential managers, Accountant, policy makers, planners and students,
- ) It provides information for the financial analysis.
- ) This study is also directed to KMSS.
- ) It provides literature to the researcher, who wants to carry on future research's in this field.

### **1.7 Limitation of the study:**

This study covers only the budgeting, sales planning what has limited the scope of the study. The study has undergone through the data of 8 yrs only i.e. fiscal year 057/58 to 063/64 control aspect. The study is concentrated in budgeting, sales planning, and some aspect from managerial, financial and accounting point of view which doesn't covers the other area of these aspects of the enterprise. Other limitations are as follows:

- ) The accuracy of the analysis of data will be depended upon data available from KMSS.
- ) The comprehensibility of the study will also be depended upon how far the enterprise adopted sales planning.
- ) Being a student, financial resources is another factor which has limited scope of the study.

## **1.8 Research Methodology:**

The methodology for attaining above different objectives consists of the study design, sources the type of data, data collection, techniques and data presentation and analysis technique.

## **1.9 Organization of the Study:**

Since the aim of this study is to examine, evaluate, analyze and interpret the application of sales planning and control system in KMSS, formulation implementation and performance of PPC program is given due consideration, Each chapter of this study is treated with in this frame work and is divided into five chapters that are as follows.

Chapter I	Introduction
Chapter II	Review of Literature
Chapter III	Research Methodology
Chapter IV	Presentation and Analysis of Data
Chapter V	Summary, Conclusion, Recommendations
Bibliography	Appendix & Glossary have been includes at the end of the study.

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

#### **2.1 Profit**

Generally, Profit may be defined as difference between revenue & cost incurred or the excess of income over expenditure during a particular period of time. Profit is what's left after all outgo has been deducted from income. "Profit is the ultimate yardstick of management's ability to coordinate, plan and act in the interest of the consumer." (Reekie & Crook; 1983: 380).

The term profit has been defined by different people taking into consideration of different aspects. "An economist says profit is the reward for entrepreneurship for risk taking. A labor leader might say it as a measure of how efficiently labor has produced and that it provides a base for negotiating a wage increases. An investor views it as a gauge of the return on his or her money. An internal revenue agent might regard it as the base for determining taxes. The accountant may define it simply as the excess of the firm's revenue over the expenses incurred for creating such revenue in a given fiscal period. Using the accountant's measuring stick, management think of profit as:

- ❖ A tangible expression of the goals it has set for the firm.
- ❖ A measure of the performance toward the achievement of its goals.
- ❖ A means of maintaining the health, growth and continuity of the company.

It is the ultimate objective of management to maximize profit over the long term, consistent with its social responsibility." (Lynch & Williamson; 1984: 99-100)

Profit is the most important measure of the firm's performance. "In free market economy, profit is a guide for allocating resources effectively. An analysis of the effect of various factors on profit is an essential step of the financial planning and decision making." (Pandey; 1979: 238) Profit is a tangible expression of goals it has set for the firm. It is a means of maintaining the good health, growth and continuity of the company. "Profit is a

signal for the allocation of resources and a yardstick for judging managerial efficiency.” (Kulkarni; 1985: 245) In the absence of profit nobody can think about the long term survivability of the organization & all set of objectives for what the organization was established may turn into bundle of magic sticks only covered with dream and imagination. Profit around which all organizational activities directly or indirectly revolve, play the significant role for judging managerial efficiency. “It is the primary objective of business.” (ISC & CCC; 1980: 19)

It should be noted that profit is residual income left after the payment of contractual rewards to others and for production. The difference between the outflow of expenses and inflow of the income is profit. The inflow means the sales price and outflow means the cost of production and selling cost of that product. It is a reward for business activity. Profit is obtained by subtracting the cost from revenue. In perfect competition market, profit is earned with the help of successful innovation. So this motive is residual income after distributing reward to all factors of production. Profit can be expressed as:

$$\textit{Profit} = \textit{Total Revenue} - \textit{Total cost}$$

## **2.2 Planning**

“Planning is deciding in advance what is to be done.” (Bhusan; 1995: 552) It is a method of thinking out acts and purposes before hand. Planning starts from forecasting and determination of future events. It is a determination of course of action to achieve a desired result.

“Planning is the foundation of business security. It is the means by which the business enterprise ensures tomorrow’s solvency. To plan is to determine a forward program for governing the future affairs of an enterprise.” (Burnett, et al.; 1986: 1) “Planning is the first and most bases of all the managerial functions. It is a decision making activity that is the foundation of the management process. Planning helps manager set the stage for further decisions on how to organize, lead and control.” (Schermerhorn; 1984: 108)

”A plan is a course of action and planning is the mental process involved in developing and formulating a course of action. Managerial planning is intelligent and systematic based on research and factors. Specifically, it is the mental process involved in the formulation of an intelligent scheme of action designed to accomplish effective and economically a specific objective. Without such planning, the activities of the various components of a firm may well become a series of random actions with meaningless objectives.” (Claudes; 1964: 6)

”Planning is essential to accomplish goals. It reduces uncertainty and provides direction to the employees by determining the course of action in advance. Formal planning indicates the responsibilities of management and provides an alternative to growing without direction. Planning on the other hand involves the determination of what should be done, how the goals may be achieved and what individuals are to assume responsibility and to be hold accountable.” (Grace; 1964: 102)

Similarly, **Glenn Welsch** defines management planning as the design of a desired feather state for an entity and effective ways of bringing in about. He further explains, ”A fundamental purpose of management is to provide for a feed forward process. The concept of feed forward planning is generally recognized as the most difficult task facing the manager and is one on which it is very easy to procrastinate. It clearly indicated that planning is decision making process of the highest order, it requires management time and dedication and a systematic approach. The decision made in the planning process is:

- a) Anticipatory, since they are made sometime in advance of action and
- b) Interrelated, since they comprise broad groups of interdependent choice form and alternatives of the government.” (Welsch; 1996: 11)

In short, “Planning is defining goals, establishing strategy for achieving these goals and developing a comprehensive hierarchy of plans (sub plans) to integrate and coordinate activities. It is concerned with both ends (what is to be done) and means (how it is to be done).” (Robins & Coulter; 1978: 9) “Planning does not eliminate risk, it minimizes it. It cannot predict the future with accuracy or present mistakes but it can reduce the number

and magnitude of surprises and can provide contingency plan for the occurrence of both favorable and unfavorable situation.” (Donnelly; 1984: 84)

### **2.2.1 Planning Levels**

#### **a) Strategic/Long-term Planning**

“Strategic Long Range planning is generally planned for two years or more, varying with the enterprise and sometimes extended to ten years. “The best long range plan is one that establishes broad flexible objectives to serve as guideline for subordinate plans and that is not likely to become absolute as a result of rapidity changes in technology.”(Ewing;1964: 7)

Basically long range planning is more important for broad and long living enterprises. “It is the continuous process of making present entrepreneurial (risk taking) decision style systematically and with the best possible organizing systematically, the effort needed to carry out these decisions and measuring the results of these decisions against the expectations through organized systematic feedback. It is more than organization and analysis of information. It is a decision making process.” (Drucker; 1959: 12-13) The main purpose of this plan is “to serve primarily as a source of strategy, motivation and direction.” (Corafas; 1990: 52)

Some of the decisions that are made in preparing long term planning are:

- ❖ Determination of goals, objectives and strategies.
- ❖ The level and direction of capital expenditures.
- ❖ The acquisition of new sources of funds.
- ❖ Organization design and structure.

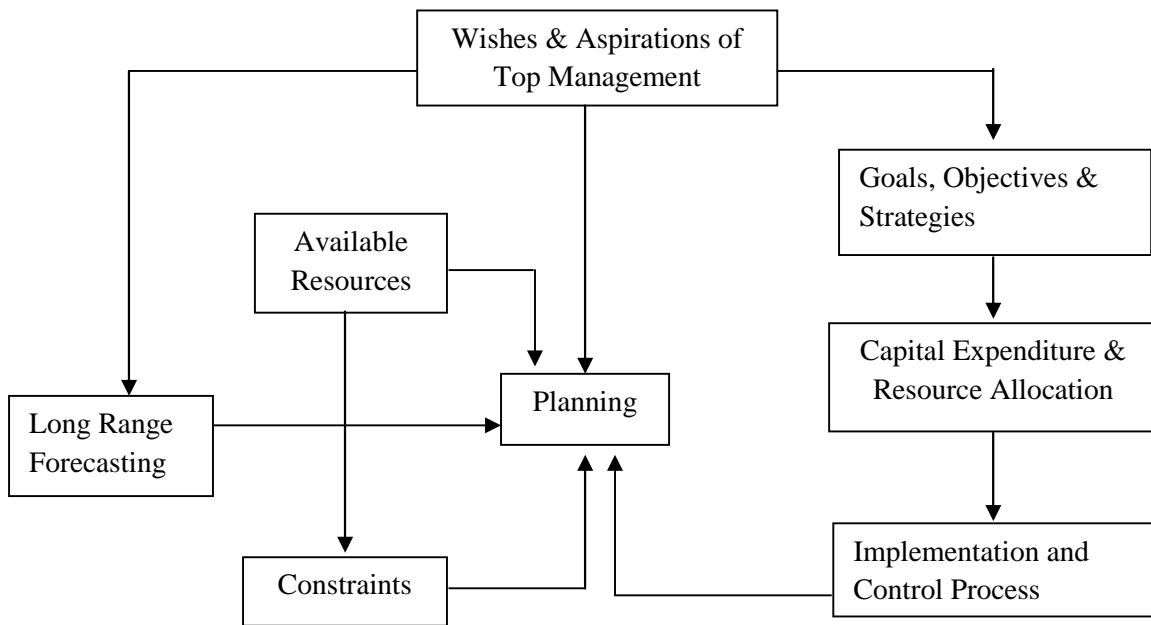
“The objectives of long range planning given by George R. Terry is as under:

- ❖ To provide a clear picture of whether the enterprise is handed.
- ❖ To keep enterprise strong.
- ❖ To focus on long term opportunities.
- ❖ To evaluate management personnel.
- ❖ To expedite new financing.

❖ To bring attention to new techniques.” (Terry; 1968: 235)

To achieve the purpose of long term planning, a coordinated effort on several fronts is required. Forecasts must be made of demand for products and services, general economic conditions and technological and competitive conditions.

**Figure No. 2.1**  
**A Long Range Planning Model**



### **b) Medium Term Planning**

Medium term planning is normally prepared for two to three years timer horizon. This planning is detailed more than long range planning and less than short range planning.

“Medium term planning is used mainly to determine the allocation of resources among competing activities to revise long range plans in view of more recent developments. Medium term planning often takes the form of budgeting in which each division, department or unit is allocated certain resources during the coming year. These allocations are based in part on forecast of demand, cost, financial decisions and competition. With a time horizon of one to two years and critical decisions on resource allocation, medium term planning must correctly predict the general level of economic activity, since that affect such factors as revenues, profits, costs and expenditures.

The importance and infrequency of medium term planning make it worthwhile to spend more effort and employ more elaborate techniques to obtain an accurate prediction that is the case for shorter time horizon. Often it may be wise to use more than one method in order to check and compare the accuracy of results. Some of the methods most frequently used for medium term planning needs are decomposition.” (Bhandari; 1995: 31)

### **c) Short Term Planning**

“The short term plan is synonymous with the classical budgetary period of one year. The short range planning is made after a freeze is taken as the consideration of possible alternative course of action. Such courses are outlines for the medium range plan which doesn’t concern implementation; its aim is weeding out a plethora of possibilities which are for the most part long on promises and short on feasible, tangible results.” (Corafas; 1990: 52)

“Short range planning is selected to conform to fiscal quarter or years. Because of the practical needed for conforming plans to accounting periods and the some what arbitrary limitation of the long range to three to five years is usually based as has been indicated on the prevailing belief that the degree of uncertainty overlong period makes planning of questionable value.” (Koontz & Donnell; 1964: 37)

Short range planning is of limited time dimension. Usually it covers one year time period. It is used by the management as a substantial of long range plan.

## **2.3 Control**

“Control is the basic managerial function. It is the process of ensuring that actual activities conform to plan activities. It involves guiding and regulating operations towards the predetermined goals. The main object of controlling is to make sure that actual performance is consistent with plans and if there is any deviation taking corrective actions to conform to plans. Thus, without effective control procedures, the organization is not likely to reach its goals.

According to Joseph L. Massie, 'Control is the process that measures current performance and guides it towards some predetermined goals.' In the words of George R. Terry, 'Controlling is determining what is being accomplished, that is evaluating the performance and if necessary applying corrective so that the performance takes place according to plans.'

Koontz and Weihrich have defined, 'Controlling is the measurement and correction of performance in order to make sure those enterprise objectives and the plans devised to attain them are accomplished.' Thus, controlling is the process of measuring actual performance and comparing with standards, identifying and analyzing deviation if any, and taking corrective action to meet the standards. It assures that the right things are done in the right manner and at the right time. Its purpose is to make sure that actual performance is consistent with plans. In fact, control helps managers monitor the effectiveness of their planning, their organizing, and their directing activities." (Shrestha; 2000: 284)

## **2.4 Relationship between Planning and Control**

"Planning and control are two important management functions, which are closely interrelated. Planning without control is meaningless and control without planning is aimless. Planning provides the basis of control. Control implies existence of certain standards against which actual performance can be evaluated and planning provides such standards. Thus, the concept of control cannot exist without planning.

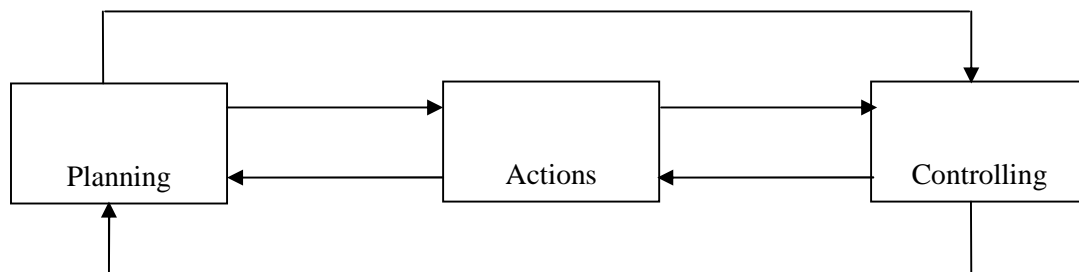
Once a plan is brought into effect, control is necessary to measure the progress of work, to detect the deviations from plans and take corrective measures. Control process involves the measurement and evaluation of actual results with the standards set by the plans. It points out deviations, if any, from standards and ensures operations are according to plans. The analysis of deviations locates the errors and helps to remove them by taking corrective actions. It may also lead to setting of new goals, changes in the organizational structure, improvements in staffing and new action is taken to regulate future events, because past

cannot be controlled. Control, therefore, makes planning a meaningful exercise and planning provides the guidelines for control.

In fact, planning and control are inseparable twins of management. Any attempt to control without plan is meaningless since the course one is adopting is unknown. Thus, there is reciprocal relationship between planning and control. This mutual relationship between planning and control is shown as follows:

**Figure No. 2.2**

**Interrelationship between Planning and Control**



It is also said that ‘planning is looking ahead and control is looking back.’ The statement is partially correct. Planning is always looking ahead, whereas control evaluates what has happened in the past. It is, therefore, said that control is looking back. But one cannot control the past, which serves the guide to prevent undesirable events in future. In this sense, control is looking back as well as looking ahead. Thus, the statement that planning is looking ahead and control is looking back is partially correct.” (Shrestha; 2000: 284-287)

### **2.5 Budgeting as a Tool of Profit Planning**

“Proper planning is indispensable to achieve the goal of maximum profit. For the implementation of such a plan, budget is regarded as the most effective device. A budget is effectively used for control purpose. It is a quantitative expression of a plan of action prepared in advance for the period to which it relates. In simple word, budget is a statement showing the planned income and expenditure for a future period prepared in terms of money or quantity or both.

Budgeting is not a new concept. It has been in use for a very long time. Everybody is familiar with budget. Knowingly or unknowingly people make plans for their revenue and expenses. Some people do their planning entirely in their heads and express it orally. Other puts it in written form. For example, a house wife prepares 'family budget' every month and endeavors to keep the actual expenditure within the budget. It is also a preliminary concept of budget." (Dangol & Dangol; 2062: 266)

The Chartered Institute of Management Accountants, England and Wales (CIMA) defines budget as "A financial statement or a quantitative statement prepared and approved prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective."

In the words of George R. Terry, "Budget is a pre-determined detailed plan of action developed and distributed as a guide to current operations and as a partial basis for the subsequent evaluation of performance."

Brown and Howard defines budget as "a pre-determined statement of management policy during a given period which provides a standard for comparison with the results actually achieved."

Thus, budget denotes a planning for the future. It is a formal business plan for some future period. A budget is both a 'plan' as well as a 'Control Tool.' Budget is to be referred as a plan because it is a planning for future operation. Similarly, budget can be taken as a basis for subsequent evaluation of performance and can be referred as a control tool.

Budget is defined as "the quantitative and financial interpretation of the future plan of operation", and as the "overall financial plan for future activities." It is a plan for the utilization and co-ordination of various resources available in an organization.

## **2.6 Profit Planning and Control**

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

The management is efficient if it is able to accomplish the objective of the enterprise. It is effective, when it accomplishes the objectives with minimum effort and cost. In order to attain long-range efficiency and effectiveness, management must chart out its course of action in advance. A systematic approach that facilitates effective management performance is profit planning and control, or budgeting. Budgeting is therefore an integral part of management. In a way, budgetary control system has been described as a historical combination of a goal-setting machine for increasing an enterprises profit, and “goal-achieving, machine for facilitating organizational co-ordination and planning while achieving the budgeted targets.” (Gautam & Bhattarai; 2004: 1)

Comprehensive profit planning and control (profit planning and control) is a new term in the literature of business. Though it is a new term, it is not a new concept in management. The other terms, which can be used in same context, are comprehensive budgeting, managerial budgeting, and simply budgeting. The profit planning and control can be defined as process/techniques of management that enhances the efficiency of management.

“Comprehensive profit planning and control is a systematic and formalized approach for accomplishing the planning, co-ordination and control responsibilities of management.” (Welsch; 1996: 1)

“PPC is a comprehensive planning in the corporate environment involving in-depth study of goals, procedures, responsibility, and coordination of planning and control process. It is objective and structuring of planning process, significant problem areas, benchmarks for alternative evaluation processes, and correction and control tools. Comprehensive profit

planning and control is viewed as a process designed to help management effectively perform significant phase of the planning and control functions.” (Gupta; 1996: 31)

“PPC represents an overall plan of operations, providing guidelines to management and acting as single light for the management. It enables the management to correct its policy. PPC covers a definite period of time and formulates the planning decision of management. PPC is written plan in which all aspects of business operations with respect to a definite future period are included. PPC is a formal statement of policy, plan, objective and goal established by top management in respect of some future period. It is a predetermined detailed plan of action developed and distributed as an audit to current operations and as a partial basis for the subsequent evaluation of performance. ” (Gupta: 1996: 52) Thus, it can be said that profit planning is a total, which may be used by the management in planning the future course of action and in controlling the actual performance.

### **2.6.1 Advantages of PPC**

Profit Planning and Control can be adapted to any (profit or non profit service or manufacturing) regardless of size, special circumstances, or conditions. Profit planning is very important to emphasize on developing positive reinforcement, improving motivation, developing goals, coping with the effect of budgetary pressure, resolving budget padding problems and using budget for control. Some of the major points for profit planning and control that show the advantages of profit planning and control are:

- ❖ “Profit planning and control compels management to plan for future. The profit planning process forces management to look ahead and become more effective and efficient in administering the business operations. It instills into managers the habit of evaluating carefully their problems and related variables before making any decisions.
- ❖ It helps to coordinate, integrate and balance the efforts of various departments in the light of the overall objectives of the enterprise. This results in goal congruency and harmony among the departments.
- ❖ It facilitates control by providing definite expectations in the planning phase that can be uses as a frame of reference for judging the subsequent performance.

Undoubtedly, budgeted performance is a more relevant standard for comparison than past performance, since past performance is based on historical factors which are constantly changing.

- ❖ PPC improves the quality of communication. The enterprise objectives, budget goals, authority and responsibility and procedures to implement plans are clearly written and communicated through budgets to all individuals in the enterprise. This results in better understanding and harmonious relations among managers and subordinates.
- ❖ PPC helps to optimize the use of the firm's resources- capital and human; it aids in directing the total efforts of the firm into the most profitable channels.
- ❖ It increases the morale and thus, the productivity of the employees by seeking their meaningful participation in the formulation of plans and policies, bringing a harmony between individual goals and the enterprise objectives and by providing incentives to perform more effectively.
- ❖ It develops an atmosphere of profit-mindedness and cost-consciousness.
- ❖ It permits to focus management attention on significant matters through budgetary reports; thus, it facilitates management by exception and thereby saves management time and energy considerably.
- ❖ It measures efficiency, permits management self-evaluation and indicates the progress in attaining the enterprise objectives.” (Pandey; 1979: 307-308)

### **2.6.2 Limitations of PPC**

“For running an enterprise systematically, PPC is regarded as the most significant system. It has got so many advantages, which have already been listed above. However, the system suffers from certain limitations. Management must keep them in mind while using this system.

Following are the limitations of budgeting system:

- a) Based on Estimate: PPC is an estimate about future. The success or failure of a budget depends upon the accuracy of estimate. Absolute accuracy is not possible in this world, although many statistical techniques are available. Hence, the user of budget must keep in view that budget is based on estimate.

- b) Danger of Rigidity: It is estimation on quantitative expression of all relevant data. So there can be the tendency to attach some sorts of rigidity for finality to them. But rigidity makes it useless. For usefulness, it must be revised with the changing circumstances.
- c) Execution is not Automatic: It should be properly implemented for improving the management of an enterprise. For the success of budgeting system, it is essential to be understood by all the related persons inside the enterprise. Each executive must feel the sense of responsibility and should make efforts to attain the budgeted goals. Departmental heads should seriously think that it is their individual responsibility to fulfill the target set up in their departmental budget. The success of a PPC system totally depends upon the efficient management and administration.
- d) Tool of Management: It is not a substitute for management. It is simply a management tool. It is totally wrong to think that the introduction of PPC system is sufficient alone to ensure success and guarantee for budgeted goals.
- e) Expensive Technique: The system involves cost in terms of money, time and energy. Normally, it is so costly that small concern cannot afford it. Even for a large concern it is suggested that there should be some correlation between the cost of operating a PPC system and benefits derived from it. The system should be adopted only when benefits exceed the cost.
- f) Morale of the Employees: PPC targets are sometimes considered as pressure tactics which lowers the morals of the employees. Therefore, unrealistic target should not be set and used as a pressure tactic.” (Dangol & Dangol; 2062: 267-268)

## **2.7 Profit Planning and Control Process**

Profit planning process should involve periodic consistent and depth re-planning, so that all operations are carefully reexamined and re-evaluated. The steps that arises in PPC process has been presented in table no.2.1 as follows:

**Table No. 2.1**

**An overview of PPC Process**

<b>Management Function</b>	<b>Sequential phases of the PPC Process</b>	<b>Primary Responsibility</b>
<p style="text-align: center;">↑</p> <p style="text-align: center;">Planning</p> <p style="text-align: center;">↓</p>	1. External relevant variables- identity and evaluate.	<p style="text-align: center;">↑</p> <p style="text-align: center;">Executive Management</p> <p style="text-align: center;">↓</p>
	2. Broad Objectives of the business- develop or revise.	
	3. Specific enterprises goals- develop consistent with item 2 above.	
	4. Enterprise strategies- specify major trusts to attain the objectives and goals.	
	5. Ex management planning instructions- specify planning premises (or guidelines) for managers (based on item 1-4 above).	
	6. Project plans- develop and evaluate for each project.	
	7. Strategic profit plan (long range)- develop for 3, 5 or 10 years.	<p style="text-align: center;">↑</p> <p style="text-align: center;">Middle Management</p> <p style="text-align: center;">↓</p>
	8. Tactical profit plan (short range)- develop for upcoming year.	
<p style="text-align: center;">↑</p> <p style="text-align: center;">Leading</p> <p style="text-align: center;">↓</p>	9. Implementation of profit plans- implement throughout the budget year.	<p style="text-align: center;">All Mgmt. Levels</p>
<p style="text-align: center;">↑</p> <p style="text-align: center;">Controlling</p> <p style="text-align: center;">↓</p>	10. Performance reports- prepare monthly reports by responsibility.	<p style="text-align: center;">↑</p> <p style="text-align: center;">All Management Levels</p> <p style="text-align: center;">↓</p>
	11. Follow up- Provide feedback, take corrective action and re-plan.	

### **2.7.1 Identification & Evaluation of external variables**

“The variable-identification phase of the PPC process focuses on a) identifying and b) evaluating the effects of the external variables. As the management planning focuses on the best manipulation of controllable and non controllable variables, these variables are considered separately. This is done in order to minimize the potential unfavorable impacts.

A particularly significant phase of this analysis includes the evaluation of the present strength and weakness of the enterprise. This aspect of the planning process is usually difficult for most management because deficiencies and inefficiencies are frequently difficult to identify and evaluate objectively by those directly involved. The comprehensive PPC approach is based on the expectation that these significant aspects of operations will be critically analyzed and evaluated periodically in an orderly manner.” (Welsch, et al., 1999: 74-75)

### **2.7.2 Development of the broad objectives of the enterprise**

In this phase of the PPC process, the executive management should express the mission, vision and ethical character of the enterprise. Its purpose is to provide identity, continuity of purpose and definition. However, “the statement of broad objectives normally should not specify the quantitative goals. Rather, it should be a narrative expression of the purpose, objectives and philosophical character of the business. It should be designed for wide dissemination and should be believable, which means, in the long run the company’s actions must be in harmony with the statement.” (Weslch, et al., 1999: 76)

### **2.7.3 Development of specific goals for the enterprise**

“This phase provides both narrative and quantitative goals that are definite and measurable. These are specific goals that relate to the enterprise as a whole and to the major responsibility centers. Executive management should exercise leadership in this planning phase so that there will be a realistic and clearly articulated framework within which operations will be conducted toward common goals. This statement of specific goals should define such operational goals as expansion or contraction of products and service lines, geographical areas, share of the market by major products and service lines, growth

trends, production goals, profit goals, profit margins, return on investment and cash flow. When the goals are specific they could offer basis for performance measurement.” (Welsch, et al.; 1999: 77-78)

#### **2.7.4 Development and evaluation of company strategies**

“The purpose of developing and disseminating enterprise strategies (long term or short term) is to find the best alternatives for attaining the planned broad objectives and specific goals. Strategies focus on “how”, therefore they outline a plan of action for the enterprise. Executive management must be creative and directly involved in the development of new strategies and in the adaptation of currently ongoing strategies in harmony with the relevant variables with which management must cope. While developing the basic enterprise, the executive must focus on identification of the critical area that influences the long-range success of the enterprise. Although strategy formulation is of continual concern to executive management, periodic reassessment of the strategies is essential in the light of a careful analysis of all relevant variables and their probable future impact on the enterprise.” (Welsch, et al.; 1999: 78)

#### **2.7.5 Preparation and Evaluation of Project Plans**

Apart from tactical planning and strategic planning, the concept of profit planning and control covers a systematic and integrated approach to project planning. “Project plans encompass such items as plans for improvement of present product, new and expanded physical facilities, and entrance into new industries, exit from products and industries, new technology and other major activities that can be separately identified for planning purposes.

The nature of projects is such that they must be planned as separate units. In planning for a project, the time span considered must normally be the anticipated life span of the project. Projects approved must then be timed into the strategic and tactical profit plans. In addition to any ongoing projects, management should encourage on a continuing basis project proposal from any source within the enterprise. Consistent with this approach, during the formal planning cycle, management must evaluate and decide upon the plan status or each

project in process and select any new projects to be initiated during time dimensions covered by the upcoming strategic and tactical profit plans.” (Welsch, et al.; 1999: 79)

### **2.7.6 Development and approval of strategic and tactical profit plans**

Strategic or long range plan and the tactical or short range profit plan are usually developed at the same time. It is generally seen that the executive management develops the strategic and tactical profit plans but the backlash of this practice is that denies the full participation by middle managers in the planning process. And this can give rise to unfavorable behavioral effects.

“Now the manager of each responsibility center will immediately initiate activities within their responsibility center to develop a strategic long range profit plan and in harmony with the long range plan, a tactical short range profit plan. However a certain format and procedural instructions should be provided by a centralized source to establish the general format, amount of detail and other relevant procedural and format requirement essential for aggregation of the plans of the responsibility centers into the overall profit plans.

After the completion of the two profit plans the approval must be initiated. This process involves approval, disapproval or revision based on action by executive management or presentation and justification by the managers of the responsibility centers to the next higher level of authority.” (Welsch, et al.; 1999: 80)

### **2.7.7 Implementation of profit plans**

Once the plans are developed and approved, they need to be implemented in such a way that leads the subordinates in attaining enterprise objectives and goals. “Thus, effective management at all levels requires that enterprise objectives, goals, strategies, and policies be communicated and understood by subordinates. There are many facets involved in management leadership. However, a comprehensive profit planning and control program may aid substantially in performing this function. Plans, strategies, and policies developed through significant participation establish the foundation for effective communication.” (Welsch, et al.; 1999: 84)

The plans should have been developed with the managerial conviction that they are going to be met or exceeded in all major respects. If these principles are effective in the development process, the various executive and supervisors will have a clear understanding of their responsibilities and expected level of performance, which will ultimately lead to effective implementation of profit plans.

### **2.7.8 Use of Periodic Performance**

“Performance reports are those reports that show actual results, planned results and variations between those two, to be analyzed to take necessary corrective measures in the future. These performance reports are prepared by the accounting department on a monthly basis, however some special performance reports are prepared whenever needed.

A clear distinction must be made between external and internal financial reports. Internal reports can be further classified as (a) statistical reports that give the basic quantitative internal statistics about the operations of the enterprise, (b) special managerial reports about nonrecurring and special problems and (c) periodic performance reports. The latter reports focus on dynamic and continuous control tailored to the assigned managerial responsibilities. These reports are primarily repetitive, short term reports developed for each of the responsibility centers, which are essential for effective control.” (Welsch, et al.; 1999: 85)

### **2.7.9 Use of flexible expense budget**

Flexible budget is completely different from the profit plan but it is used as a complementary to the profit plan. “Flexible budget gives realistic information about expenses that make it possible to compute budget amounts for various output volumes or rates of activity in each responsibility center. To do this, the flexible budget provides a formula for each expense in each responsibility center. The formula gives the relationship of each expense to output in the centre. Each formula includes a constant expense factor and a variable expense rate. To apply this concept in a department, each expense must be

classified into one of the three categories: (a) Fixed expense, (b) Variable expense and (c) Semi-Variable expense.” (Welsch, et al.; 1999: 86)

Flexible expense budget formulas can be used in two phases of the PPC process. They can be used in performance control reports and in developing the tactical profit plan. If the flexible expense formulas are developed concurrently with the strategic and tactical profit plans, they are used to compute the budgeted expense amounts in the tactical profit plan. This is done by multiplying the planned output or activity of each responsibility center by the related variable expense rate for each center and then adding any fixed cost for the center.

### **2.7.10 Implementation of follow-up**

To determine whether things are going on as per plans, a continuous follow up action is important. “Because performance reports are based on assigned responsibilities, they are the basis for effective follow up actions. It is important to distinguish between the causes and results of that. The performance variations are the results and the management must determine the underlying cause. Analysis to determine the underlying causes of both favorable and unfavorable performance variances should be given immediate priority. In the case of unfavorable performance variances, after identifying the basic causes, as opposed to the results, and alternative for corrective action must be selected and the corrective actions be implemented. If performance variances are favorable, the underlying causes should be identified and this is helpful for improving efficiency and for developing positive reinforcements to the less successful operations and employees. This is called transference of success.” (Welsch, et al.; 1999: 88)

And finally there should be a special follow up to the prior follow up actions to determine the effectiveness of prior corrective actions to provide a basis for improving future planning can control procedures.”

## **2.8 Development of PPC**

To develop a comprehensive profit planning and control following plans or budget should be prepared:

### **2.8.1 Sales Plan or Budget**

The company earns profit when it is able to sell its products and not when it produces them. It is meaningless to produce goods that are not likely to be sold and for which there is a limited demand. In some business, it is necessary to establish that the product will sell even before it is produced i.e. a large luxury liner will not be built without a prospective customer agreeing beforehand to buy on completion. It is only boom time when company has full order book that sales budget loses its prime importance. In normal times of keen competition; the sales forecast must be realistic.

“Sales plan is the starting point in the preparation of the comprehensive profit planning and control. All the other plans and budgets are dependent upon the sales budget. The budget is usually presented both in units and in dollars of sales revenue 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, et al.; 1970: 637)

“Sales budget is one of the operating budgets and is essentially a forecast of sales to be effected in the budget period. In fact, sales budget defines the quantities and values of expected sales in total as well as product wise, and area wise during a definite future period. Sales budget forms the fundamental basis for other functional budgets and it is needed to coordinate the production function with expected demand for a particular product. The preparation of sales budget requires forecast of quantities to be sold and also the standard price at which these quantities may be sold.” (Gupta; 1996: 537)

“The primary purpose of sales plan are:

- ❑ To reduce uncertainty about future revenues,
- ❑ To incorporate management judgments and decisions into the planning process (e.g., in the marketing plans),

- ❑ To provide necessary information for developing other elements of a comprehensive profit plan, and
- ❑ To facilitate management's control of sales activities.” (Welsch, et al.; 1999: 172)

A comprehensive sales plan includes two separate, but related, plans:

**a) Strategic Sales Plan**

The strategic sales plan is a long-term sales plan and it usually covers 5 to 10 years time horizon. Strategic sales plan is developed as one of the first step in the overall completion process of the comprehensive profit planning. “Long term sales plans are usually developed as annual amounts. The long term sales plan uses broad grouping of product (product lines) with separate consideration of major and new product service. Long term sales plans usually involve in depth analyses of the future market potentials, which may be built up from basic foundation such as population changes, state of the economy, industry projection and finally company objectives. Long term managerial strategies would effect such areas as long term pricing policy, development of new product and innovations of present products, new directions in marketing efforts, expansion or change in distribution channels and lost patterns. The influence of the managerial strategy decisions is explicitly brought to bear on the long-term sales plan primarily on a judgmental basis.” (Welsch, et al.; 1999: 173-174)

**b) Tactical Sales Plan**

Tactical sales plan, which is also called short term sales plan, is prepared to plan sales for the twelve month in the future detailing the plan initially by quarters and by months for first quarter. The tactical sales plan is usually subject to review and revision on quarterly basis. The short term sales plan includes a detailed plan for each major product and for grouping for minor product. Short-term sales plan is usually developed in terms of physical unit (or jobs) and in sales and/or services dollars. Short term sales plan must also be structured by marketing responsibility for planning and control purposes. Short-term sales plan may involve the application of technical analysis however, managerial judgment play the large part in their determination. The amount of detail in a tactical sales plan is a function of the company's environment and characteristics. A short-range sales plan

should include considerable detail. To establish policy about detail in the short-range sales plan, the main question is use of the results. First, the major consideration is to provide details by responsibility for planning and control purpose. Second, the short-range sales plan must provide details needed for completion the profit plan components by other functional managers.

### **Development of Comprehensive Sales Plan:**

To develop the comprehensive sales plan following steps should be taken:

Step-1: Develop management guidelines for sales planning

Step-2: Prepare sales forecast

Step-3: Assemble other relevant data:

- ❑ Manufacturing capacity
- ❑ Source of raw materials and supplies, or goods for resale.
- ❑ Availability of key people and labor forces.
- ❑ Capital availability.
- ❑ Availability of alternative distribution channels.

Step-4: Develop strategic and tactical sales plan

Step-5: Secure managerial commitment to attain the goals in the comprehensive sales plan.

### **Components of Comprehensive Sales Planning:**

The components of comprehensive sales planning are:

(A) Components of the foundation for comprehensive sales planning:

- ❑ External variables identified and evaluated.
- ❑ Broad enterprise objectives and goal formulated.
- ❑ Strategies for the company developed.
- ❑ Planning premises specified.

(B) Components of a comprehensive sales plan:

111	Component	Strategic plan	Tactical plan
	Management policies and assumptions	Broad and general jjjjjjjjjj	Detailed and specific for the year
	Marketing plan (sales and services revenues)	Annual amounts; major groups	Detailed ; by product and responsibility
	Advertising and promotion plan	General: by year jjjjjjjjjj	Detailed and specific for the year
	Distribution (selling) expense plan eeeeeeeeee	Total fixed & total variable expenses; by year	Fixed & variable expenses; by month & by responsibility

**2.8.2 Production Plan or Budget**

Production plan which is based on sales forecast is prepared after the sales budget. While preparing production plan, the managers must have an optimum co-ordination between sales, inventory and production levels. An efficient and coordinated production plan is necessary for economical manufacturing.

“A production budget incorporates the estimates of the total volume of production with the scheduling of operations by days, weeks and months. The responsibility for the preparation and operation of production budget lies with production manager. The production budget is normally prepared in quantitative terms such as units of output tones of production etc. This budget is based on the previous requirements of sales department as well as normal inventory requirements. Moreover, the major changes in sales policy and inventory policy are also taken into account. Such changes would be reflected in sales budget and hence sales budget should be used as basis for production estimates and forecasts. At the same time, a comprehensive analysis of production scheduling, dispatching, inspection, plant capacity, etc., should also be carried out.” (Gupta; 1996: 541-542).

“Production plan is based on estimated sales. Production must be planned to allow sufficient time to manufacture the products before the estimated data on sales. The annual

sales budget and the inventory requirements provide the framework for the production budget. It is prepared on the basis of:

- ❖ Sales budget,
- ❖ Plant capacity,
- ❖ Opening Inventory of finished goods,
- ❖ Required closing inventory of finished goods and
- ❖ Policy of management.” (Rathnam; 1994: 14-15)

The following formula is used to determine the planned production:

	Units
Planned Sales (units)	XXX
Add: Desired Closing Stock of Finished Goods	<u>XXX</u>
Total Requirement	XXX
Less: Opening Stock of Finished Goods	<u>XXX</u>
Planned Production (units)	<u>XXX</u>

“The objects of preparing production budget are:” (Gupta; 1996: 542)

- ❖ to establish policies,
- ❖ to project these policies into the future,
- ❖ to plan to control the implementation of these policies,
- ❖ to arrange for materials at right time and right place,
- ❖ to plan the sequence of operations necessary for economical production,
- ❖ to coordinate the various aspects of operations making them a vital link in the total program,
- ❖ to organize the production program for meeting the sales budget,
- ❖ to serve as basis for the preparation of cost production budget and
- ❖ to prepare the cash forecast.

“While preparing the production budget, the following factors are considered:

- i. The time lag between the production in the factory and sales to the customer.
- ii. The stock of goods to be maintained both at the factory’s godown and at the sales center.
- iii. The level of production needed to meet the sales program.
- iv. The material, labor and plant requirement should be ascertained to have the desired production to meet the sales program.

The sales and the production budgets are inter-dependent because production budget is governed by the sales budget and the sales budget is largely determined by the production capacity and by production costs.” (Jain & Narang; 1984: D-92)

### **2.8.3 Material Plan or Budget**

“In drawing up the production budget one of the first matters to be considered is materials. It should be based on production budget, since the amount of direct materials used in manufacturing varies directly with the number of units of output. The problems connected with the material budget include the preparation of estimates of raw material requirements necessary to produce the goods as shown in the production budget, scheduling purchases in required quantities at the specified time, and controlling of raw material inventories.” (Gupta; 1970: 273)

“Materials budget can be classified into material requirement budget and material procurement budget. The former gives information about the quantity of material required during the budget period to attain the production target; while the latter provides the information about the materials to be acquired from the market during the budget period. Material procurement budget takes into consideration the inventory of materials and the materials on order at the beginning of the budget period and the anticipated inventory of materials and the materials to be on order on the closing date of the budget period.” (Jain & Narang; 1984: D-94)

“Planning raw materials and parts usually requires the following four sub-budgets:

- a. Materials and Parts Budget: This budget specifies the planned quantities of each raw material and part required for planned production. It should specify quantities of each raw material and part by time, product, and responsibility center.
- b. Materials and Parts Purchases Budget: The materials and parts budget specifies the quantities and timing of each raw material and component part needed; therefore, a plan for purchases must be developed. The purchases and parts budget specifies the planned quantities of materials and parts to be purchased, the estimated cost, and the required delivery dates.
- c. Materials and Parts Inventory Budget: This budget specifies the planned levels of raw material and parts inventory in terms of quantities and cost. The difference in units between the requirements as specified in the material budget and the purchase budget is shown as planned increases or decreases in the materials and parts inventory budget.
- d. Cost of Materials and Parts used Budget: This budget specifies the planned cost of the materials and parts that will be used in the productive process. Notice that this budget cannot be completed until the planned cost of purchases is developed.

The four separated sub-budgets listed above are directly related. Collectively, they can be viewed as the materials and purchases budget.” (Welsch, et al.; 1999: 240-241)

“The objectives served by the materials budget are:

- i. To give information regarding the stock position.
- ii. To enable estimates to be made of the total quantity of materials required for production,
- iii. To arrive at the costs of the various raw materials.
- iv. To provide the Purchasing department with the data for formulating purchase program.” (Manmohan & Goyal; 1977: 52)

“The budget must be prepared in sufficient detail to show not only the quantities of materials which will be required to manufacture the budgeted production but also:

- a) The quantities of materials which must be in stock during the budgeted production period.
- b) The time within which materials required must or will be available having regard to the rate of output forecast.
- c) The anticipated cost of the materials to be purchases.
- d) The period of credit obtainable from suppliers and the amount which will fall due for payment in each relevant period.” (Gupta; 1970: 274)

#### **2.8.4 Labor Plan or Budget**

“The production budget (in units) is the basis for the preparation of the labor budget. The labor hours required for the budgeted production would give management information of labor requirements. The product of the labor hours and the standard rate per labor hour would give the direct labor cost of the budgeted production.” (Murthy; 1982: 291) The labor cost budget can be drawn up only when the time required to do one unit of work and the wages to be paid for it are known. (Hingorani, et al.; 1992: 272)

“An estimate of direct labor (in hour) requirements essential for achieving the targets of production budget gives birth to direct labor budget. This budget may give details about direct labor cost (i.e., budgeted units of production may be multiplied by labor cost per unit) or about both direct labor hours and costs (here direct labor hours are estimated for budgeted units and then multiplied by wage rate per hour). Direct labor hours are estimated on the basis of past experience for each category of workers with reference to budgeted units of production. Internal factors like the types of production process, the method of wage payment and system of cost records will decide the possibility of expressing production units in terms of labor hours. The personnel department will suggest the wage rates that are likely to prevail. It is mostly calculated on the basis of historical relationship between wages paid and direct labor hours worked in the department or for the product after considering the current situations. This budget may also be termed as ‘Man-Power-Budget’.” (Gupta; 1996: 547)

“Direct labor cost budget serves the following purposes:

- ❖ It assists the personnel department in suitable planning regarding labors.
- ❖ It provides planning data regarding number of each grade or class of workers required to achieve the pre-determined production units.
- ❖ It assists to estimate cost of such labor in each period and control of labor rates.
- ❖ It provides as a guide for timely provision of fund for making payment to labors.
- ❖ It serves the information regarding the period of training necessary if workers previously not trained in the processes are to be trained or required efficient workers should be hired from outside.” (Dangol & Dangol; 2062: 291)

“The labor budget prepared must disclose the following information:

- a) The numbers of each grade or class of workers required to achieve the predetermined output in each period into which the output budget is divided.
- b) The estimated cost of such labor in each period.
- c) The period of training necessary if workers previously not trained in the process is to be trained.” (Gupta; 1970: 274)

### **2.8.5 Expenses Plan or Budget**

Expenses planning and controlling is not reduction of cost but it means better utilization of limited resources. “Expenses planning and control should focus on the relationship between expenditures and the benefits derived from those expenditures. The desired benefits should be viewed as goals, and sufficient resources must be planned to support the operating activities essential for their accomplishment.” (Welsch, et al.; 1999: 302)

“Three different types of expenses can be visualized with changes in volume/level of activity as below:” (Khan & Jain; 2000: 16.12)

- a) Fixed Expenses: The fixed expenses are associated with inputs that do not fluctuate in response to changes in the total activity or output of the firm, within relevant range. They are normally fixed for a relevant range of volume but fluctuate beyond that range. Moreover, fixed expenses are to be analyzed in relation to a given period of

time. Examples of fixed expenses are salaries, property taxes, insurance, and depreciation (Straight line).

- b) Variable Expenses: The variable expenses are those expenses that are assumed to fluctuate in direct proportion to production activity/sales activity/some other measure of volume. The level of variable expenses at any volume can be estimated easily if the relationship between expenses and volume is shown. Examples of variable expenses are direct material, direct labor, and power usage.
- c) Semi-Variable Expenses: The semi-variable expenses are composed of both fixed and variable elements. The fixed part of this expense often represents expenses of capacity, while the variable element is influenced by changed in activity. For budgeting purposes, semi-variable expenses must be broken down into their fixed and variable components/segments. Once this is done, the amount of fixed expenses and the rate at which total variable expenses change in proportion to total changes in output/volume can be worked out. That is, the fixed expenses remain constant regardless of activity, but the variable portion is assumed to change in direct proportion to change in labor-hours, labor costs, machine hours, material costs/material quantity, and so on.

Three broad categories of expenses are included on expenses budget:

#### **A) Factory Expenses Budget**

“Factory overhead budget is prepared with the anticipated expenses of factory other than direct material, direct labor and direct expenses. These factory expenses are grouped as variable, semi-variable and fixed. Fixed factory expenses may be estimated without any difficulty on the basis of past data and knowledge of any change which may take place during the budget period. Variable factory expenses are estimated taking into account the planned production and operating conditions during the budget period. Semi-variable expenses may be estimated by the analysis of past data and experiences. Apart from variability, the likely change in the rate of expenses should also be considered. Normally, this budget is prepared for each division of the factory. Expenses for each division are allocated with reference to some directly related factors. Again the budget may be prepared either in fixed (static) form or in variable (flexible) form, in the latter case factory overhead rate per hour can easily be calculated.” (Gupta; 1996: 549)

## **B) Administrative Expenses Budget**

“The functions performed by the management group of the modern concern are extremely important and varied in scope. In addition to the executive office, there are usually departments such as legal, public relations, accountancy, research, costing, statistical, buying and collection, planning, drawing and design, labor relations and budgeting.

The preparation of administrative budgets requires the same careful analysis of the needs of each department that are employed in budgeting for other divisions of the enterprise.

The first step in the preparation of administrative budget is the analysis of costs for preceding years in order to determine the minimum requirements for the efficient operation for each department. A detailed study of each office routine and procedure and a review of the different reports may result in the elimination of unnecessary work and simplification of many tasks. The plans and responsibilities of each administrative department for the budget period must be studied and the estimate for each item of cost should be made to provide a workable budget. A master or summary budget, comprising totals of the budgets of the separated departments, should be prepared for the administrative division.” (Gupta; 1970: 276-277)

## **C) Selling and Distribution Expenses Budget**

“Based on the Sales Budget, the selling program for the year is chalked out laying down in detail the plan to be followed, in order that the sales targets could be achieved. The expenses to be incurred in carrying out this plan will constitute the Selling and Distribution Expenses Budget. In preparing this budget, the points that will have to be taken note of are:

- a) The channel through which the sales are to be effected;
- b) The sales promotion plans to be pursued;
- c) The sales territories to be covered and
- d) The mode of dispatch of the products to customers.

The sales to customers could be affected either through (i) company's show rooms or sales offices set up in various centers, or (ii) mail order sales, or (iii) company's selling agents and distributors. The nature of sales channel will determine the nature of the expenses to be incurred in selling and these should be budgeted for each sales channel separately.

The budget for sales promotion expenses is purely a matter of policy. What amount a company is prepared to spend on sales promotion, and the medium through which the sales promotion is going to be carried out, will depend on factors like the extent of participation which the company wants to achieve, the degree of competition in the trade, and the nature of the product marketed. The budget for sales promotion expenses is therefore normally based on the past actual, adjusted to the changes in the company's policy with regard to sales promotion campaigns. The sales territories to be covered and the mode of dispatch to be adopted will have a direct bearing on the selling and distribution expenses budget, particularly on expenses like warehouse charges, packing costs, transport and delivery charges, etc." (Swaminathan; 1970: 358)

### **2.8.6 Capital Expenditure Budget**

"Capital budgeting may be defined as the decision making process by which firm evaluates the purchase of major fixed assets, including building, machine and equipment. It is a part of the firm's formal planning process for acquisition and investment of capital." (Hampton; 1994: 299) "Capital expenditure budgeting refers to the investment decision making procedures of business firms and enterprises." (Baumol; 1973: 458)

"The capital expenditure budget gives an estimate of the amount of capital that may be needed for acquiring the fixed assets required for fulfilling production requirement as specified in the production budget. The budget is prepared after taking into consideration the available productive capacities, probable reallocation of the existing assets and possible improvement in production techniques. Separate budgets may be prepared for different items of fixed assets such as plant and equipment budget, building budget etc. The capital expenditure budget is an important budget providing for the acquisition of assets, necessitated by the following factors;

- i. Replacement of existing assets.
- ii. Purchase of additional assets to meet a proposed increase in production due to increase in demand.
- iii. Purchase of additional assets because of starting up of new lines of production.
- iv. Installation of an improved type of machinery so as to reduce cost of production.

Thus, the capital expenditure budget enables one to know what new fixed assets are needed and at what time.” (Jain and Narang; 1984: D-98)

### **2.8.7 Cash Budget**

“This is the budget of anticipated receipts and payments of cash during the budget period and is practically the nerve centre of the whole budgetary control system. After the sales budget, the production budget and the capital expenditure budget are completed, the cash budget is built up, since most of the details necessary for the cash budget are available from these three budgets. The cash budget is prepared in order to:

- ) Have a prior knowledge of the cash flow during the budget period, so that arrangements can be made to ensure cash availability whenever necessary;
- ) Anticipate period of shortfall in cash and the extent to which it would affect the working capital;
- ) Prudently utilize or invest the cash surplus that may arise during the budget period.”  
(Swaminathan; 1970: 364)

“The principal aim of the cash budget, as a tool of planning, is to ascertain whether, at any time, there is likely to be an excess or shortage of cash.” (Khan & Jain; 2000: 16.5) “Cash budget is just a sophisticated and enlarged form of what a housewife does to balance her budget.” (Hingorani, et al.; 1992: 276)

“The cash budget pulls together much of the data developed in the preceding steps. The cash budget is composed of four major sections:

- a) The cash receipts section. The receipts section consists of the opening cash balance added to whatever is expected in the way of cash receipts during the budget period. Generally the major source of receipts will be from sales.
- b) The disbursements section. The disbursements section consists of all cash payments that are planned for the budget period. These payments will include raw materials purchases, direct labor payments, manufacturing overhead costs, etc., as contained in their respective budgets. In addition, other cash disbursements such as income taxes, capital equipment purchases, and dividend payments will also be included.
- c) The cash excess or deficiency section. The cash excess or deficiency section consists of the difference between the cash receipts section totals and the cash disbursements section totals. If a deficiency exists, the company will need to arrange for borrowed funds from its bank. If an excess exists, funds borrowed in previous periods can be repaid, or the idle funds can be placed in short-term investments.
- d) The financing section. The financing section provides a detailed account of the borrowings and repayments projected to take place during the budget period. It also includes a detail of interest payments that will be due on money borrowed. Banks are becoming increasingly insistent that firms in need of borrowed money give long advance notice of the amounts and times that funds will be needed. This permits the banks to plan, and helps to assure that funds will be ready when needed. Moreover, careful planning of cash needs via the budgeting process avoids unpleasant surprises for companies as well. Few things are more disquieting to an organization than to run into unexpected difficulties in the cash account. A well-coordinated budgeting program eliminates the uncertainty as to what the cash situation will be two months, six months, or a year from now.

The cash budget should be broken down into time periods that are as short as feasible. Many firm budget cash on a weekly basis and some larger firms go so far as to plan daily cash needs. The more common planning horizons are geared to monthly or quarterly figures.” (Garrison; 1976: 260)

“The primary purposes of the cash budget are:” (Bajracharya, et al.; 2004: 380)

- ) Providing managers with advance notice of the resources at their disposal and the results they are expected to achieve.
- ) Providing targets useful in evaluating departmental performance.
- ) Providing warnings of potential cash shortages by time period.
- ) Establishing the need for financing and/or the availability of idle cash for investment.
- ) Forcing managers to plan and coordinate cash with (a) total working capital, (b) sales revenue, (c) expenses, (d) investments, and (e) liabilities.
- ) Establishing a sound basis for continuous monitoring of the cash position.

## **2.9 Implementation of the Profit Plan**

“After approval of a profit plan, the next step is its distribution to the center managers in the enterprise. The distribution policy should allow distribution of parts of the profit plan to middle and lower management. For example, a sales district supervisor would not be given a copy of the entire budget but should receive those parts that apply to the sales budget, expense budget, and advertising budget for his or her district.

After distribution of the profit plan, a series of profit plan conferences should be held. The top executives comprehensively discuss the plans, expectations, and steps in implementation. At this top-level meeting, the importance of action flexibility and continuous control should be emphasized. Use of the profit plan as a guide to action and performance, directed toward attaining or bettering the goals quantified in the annual profit plan, require continuous management effort and attention.

Budget conferences should be conducted until all levels of management are reached. Managers must clearly understand their responsibilities and how their part of the profit plan fits into the overall company profit plan. These conferences should induce “profit and cost awareness” throughout management and, if conducted properly, will tend to ensure positive support for the objectives.” (Welsch, et al.; 1999: 472)

## **2.10 Performance Report**

“These reports are usually prepared on a monthly basis and follow a standardized format from period to period (but are not standardized among companies or industries). Such reports are designed to facilitate internal control by the management. They should be composed of carefully selected series of data related to each responsibility center. Fundamentally, they report actual results compared with goals and budget plans. Frequently, they identify problems that require special reports, since these reports are designed to pinpoint the efficient and inefficient performance.

The effective performance report should be:

- ) Tailored to the organizational structure and locus of controllability.
- ) Designed to implement the management-by-exception principle.
- ) Repetitive and related to short time periods.
- ) Adapted to the requirements of the primary users.
- ) Simple, understandable, and report only essential information.
- ) Accurate and designed to pinpoint significant distinctions.
- ) Prepared and presented promptly.
- ) Constructive in tone.” (Welsch, et al.; 1999: 543-544)

As performance reports shows variances, expressed in amounts as well as percentage of the planned or budgeted amount, statistical control unit should also be developed to determine the significance of variances. Monthly performance report should show the performance for the period being reported and cumulative variances to date such reports are usually prepared for each responsibility center.

## **2.11 Analysis of Budget Variance**

The difference between planned result and actual result is called variance. “Comparison of actual results with planned or budgeted goals has been emphasized as an integral part of the control process. A basic feature of performance report is the reporting of variances between actual results and planned or budgeted goals. If a variance is significant, a careful

management study should be made to determine the underlying causes. The underlying causes, rather than the actual results, should lead to remedies through appropriate corrective action by management.” (Welsch, et al.; 1999: 569)

In PPC process variance are analyzed basically in following areas:

- i. Sales Variance
- ii. Material Variance
- iii. Labor Variance
- iv. Manufacturing Overhead Variance
- v. Profit Variance

Following are the basic steps in analyzing variances:

- i. Setting Standards
- ii. Measurement of performance
- iii. Analyzing variances
- iv. Take corrective action

“Variance can be either favorable or unfavorable, depending upon whether actual results are greater or less than standard results. The major purpose of variance analysis is to enable management to measure performance against predetermined norms to seek out the causes for the standard results, and to institute action.” (Lynch & Williamson; 1983: 201)

## **2.12 Review of Previous Research Work**

The previous research studies help 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 & recommendations which are as follows:

**Agnidhar Parajuli, (1994)** who has conducted research about profit planning in manufacturing public enterprises for this study two public enterprises have been selected for case study and these are Bansbari leather shoe factory & Dairy Development Corporation. In this study he has attempted to point out some features and the problems of profit planning. Revealing practices and premises for implementing profit planning in these two manufacturing public enterprises.

The basic objectives of his research work to:

- a) Examine how for the profit planning system of BSL factory Ltd. And DDC has been applied.
- b) Sketch the trend of profit planning in BLS factory Ltd & DDC.
- c) Draw a picture of planning diversification (Utilization resources).
- d) See the BLS factories and DDC's profit planning in the basis of overall managerial budgeting.
- e) Examine the course lying (Make As statement) behind the managerial problem of profit planning.

For accomplishing the above stated objectives, Mr. Parajuli has made his research covering the time period of seven years from 2038/39 to 2044/45. Research methodology was followed through primary sources of data with the help of questionnaire and personal interview and secondary sources of data for data gathering procedure.

Mr. Parajuli concludes that these two PEs were adopting profit planning on an unrealistic premise, resource were inefficiently utilized and management was occupied by false perception that they are highly end owned to adopt comprehensive profit planning based on overall managerial budgeting, he has pointed out various findings and recommendations and amongst them, few major findings and recommendations are as follows:

- i. Enterprises have sales and production plan but not any specified financial plan.
- ii. There is lack of proper profit planning, especially safes planning on the basis of customer's need and demands.

iii. Very few managers are competent to identify the relevant factors variables and manipulate them for the successful formulation and implementation of the plan.

There is no any practice of profit planning so must be necessary to practice profit planning.

**Kamal Prasad Dumre, (1997)** who 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.

- a) To describe the scenario of DDC in Nepal from its inception to the present study.
- b) 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.
- c) To analyze the various functional budgets adopted in the DDC.
- d) To analyze the trend of milk and milk products, collection, production and sales.
- e) To examine the practice and effectiveness of profit planning in DDC.
- f) To evaluate the variance between targets and actual of the enterprise.
- g) Based on the finding of the analysis provide the suggestion and recommendations for improving profit plan.

Mr. 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.

- 1) 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.
- 2) To achieve the basic objectives DDC has not been clearly define its main objectives in annual goal or target/ 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 target are fixed in paper but not in action.

- 3) 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.
- 4) Sales achievement is too below that sales target. 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.
- 5) 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.
- 6) 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.
- 7) 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.
- 8) 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.
- 9) Least square straight line sales trend of DDC shows that sales will be high in future if present effort is frequently being improved.
- 10) 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.
- 11) 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 target by DDC is its inability to product line consideration.

- 12) DDC is seriously suffering from excessive fixed costs and non-manufacturing expenses. But this corporation has not any effective cost reduction program.
- 13) 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.
- 14) 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.
- 15) 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.
- 16) Based on the major findings of the study of profit planning in DDC, Mr. Dumre has been recommended some suggestions.

**Prakash Pahari, (2000)** who has submitted a research about “Profit Planning of dairy Development Corporation” in year 2000. 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 Mr.Pahari has taken a time period for 5 years from F/Y2051/52 to 2055/56.Data were taken from secondary as well as primary.

Various statistical tools has been used to analyse the data. His study pointed various findings based on the analysis of data and information's; few major findings of the conclusion of the study are as follows:

- 1) DDC has planned only short terms plan rather than long-term planning. The time covered only for one year.
- 2) DDC has collected milk by only 398 districts and distributed their products only a few urban cities.
- 3) The collection, production and sales of milk products have smoothly increasing trends.
- 4) DDC has not able to grant the loan to the farmer's requirement.
- 5) 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.
- 6) DDC has not tried to adopt the new technology for the improvement of quality of products.
- 7) There is not separate planning department and there are no planning experts, so that planning is made only on adhoc basis.
- 8) A systematic flow plan hasn't prepared.
- 9) The corporation has not prepared the periodic performances report.
- 10) The top-level executives are only involves in planning and decision making task and lower level participation is not encourages.
- 11) There is no performance of reporting, rewarded and punishment system and completely ignored the variance analysis.
- 12) 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 product's contribution on profit.
- 13) The pricing policies of the corporation are not scientific and the government directly interferes to the price of raw milk and milk products.
- 14) 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.

15) The corporation has not been trying to meet BEP, in fact the actual sales is lower than break even sales.

**Tilak Bahadur Thapaliya, (2001)** who 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 (2001, T.U) 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.

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

- 1) The management of DDC applied annual sales and production budget. There is a substantial gap between sales target in planning and achievement each year.
- 2) Objectives of DDC are not clear and measurable. Top-level management executive are only involve in planning and decision.
- 3) DDC's sales are increasing trend. It is lacking of autonomous suffering from over staffing and corruption, lack of moral and motivation in employees.
- 4) DDC should try to avoid losses of milk and quality of milk while collecting the milk through MPAS and MPCS.
- 5) 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.
- 6) Purchasing price of milk set by government is accordance with the recommendation of NDDB. Price of t eh other products are set by DDC.
- 7) There is poor policy as to sales, production, and inventory and material budge5ts. Attention towards cost structure and control programmer is not existed.

- 8) 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.
- 9) There is not intra and inter department co-ordination and lack of co-ordination with other concerned authorities.
- 10) DDC does not fix the target for specific goal for the budgeted period, eg. Growth objective, capacity utilization, return on capital are not targeted to achieve some specified level.DDC has not adequately considered controllable and non-controllable variables affecting it.

**Surendra Raj Poudel, (2004)** who, has submitted a research about ‘Sales Planning in Dairy Development Project, Pokhara Branch in Year 2004. 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’s, major findings of the conclusion of the study are as follows:

- 1) To achieve the basic objectives, DDC has not been clearly defining its main objectives in annual goal or target.
- 2) DDC has not followed participate management, even middle level of management or not participated in policy making.
- 3) In Nepalese manufacturing Public Enterprises plan are prepared on adhoc basic, which is also applicable in case of DDC, Pokahara. Without the analysis of environment the objectives are set by the DDC, which are not suitable for appropriate.
- 4) 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 interferes in long term policies.
- 5) Research and development and growth of sales a e still not are targeted.

- 6) Sale plan is a primary of profit planning other planning depends upon sales plan but DDP, Pokhara depends on production plan.
- 7) The project has not 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 with the market price of milk.
- 8) There is only annual target 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.
- 9) The DDP, Pokhara is mainly considerable to “expanding 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.
- 10) 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.
- 11) 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.
- 12) 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 in this project also.

**Lokendra Narayan Shrestha, (2005)** who 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 2059/60. Data were taken from primary source as well as secondary. Various statistical tools have been used to analyze the data. Mr. Shrestha, has pointed put various findings based on the analysis of data and information's; few major findings of the conclusion of the study are as follows.

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

### **2.13 Research Gaps:**

- ) All of the researches reviewed above have focused on some common major points. All of them have studied about profit planning and control system is basically related to applications of profit planning system based on past period of time. All of the previous researcher have pointed out, no proper planning system and have recommended for the effective implementation of profit planning system, which is related on the major findings of their study but non of them have cleared about the consequences of not working in the said manner.
- ) It would be of different value as it focuses only on specific area of profit planning, i.e. sales budget on KMSS (A manufacturing public enterprises) because all the studied reviewed were made only on comprehensive profit planning and control, and on distribution channel public manufacturing enterprises.
- ) The study attempts to analyze the sales budget on manufacturing public enterprises. It would be significant step on knowing about the sales budget on profit planning and control of KMSS and its contribution for the other manufacturing enterprises and Nepalese economy.

## **CHAPTER III**

# **RESEARCH METHODOLOGY**

### **3.1 Introduction:**

Research is the aim to find out for the society or valuable for certain group of people. It is systematic and scientific study, the result of which will not be acceptable, if any of these characteristics are not fulfilled. For research purpose, systemic study means to be not over expensive or overtime consuming with the availability of information. This research study attempts to examine the application of sales Budget system in manufacturing public enterprises in KMSS, Sales Budget is one of the most important managerial devices that plays vital role for effective formulation and implementation of different plans in KMSS.

"Research is undertaken not only to solve a problem existing in the work setting but also to add or contribute to the general body of knowledge in a particular area of interest to the researcher. Research is thus a knowledge which can be used for different purpose. It is used to build a theory, develop policies, support decision making and solve problems with the opening of new frontiers of knowledge through research, new concepts and theories are developed to explain, verify and analyze the social phenomena. [H.K. Wolff & P.R. Pant, 2002:204]

"Research methodology is the way to solve systematically about the research problem" [Kothari, 2000: 39]. In this chapter efforts have been made to present and explain the specific research design for the sake of the attaining the research objectives. It consists of: (I) Research design (II) Source of Data and Data Collection (III) Covered time (IV) Data gathering producer (V) Data gathering procedure (VI) Research variables.

#### **3.1.1 Research Design:**

Research design is an arrangement made for the collection and analysis of data that aims to achieve the purpose of the study in systematic and scientific way. The research design of this study is descriptive, as well as analytical. This study aims to analyze the budgeting

procedure of the society and impart the knowledge to the resource managers. For the purpose of study, primary and secondary data are used. The collected information is analyzed with suitable financial and statistical tools to evaluate the budgeting system in the society.

Research design is the plan structure and strategy of Investigation conceived so as to obtain answer to research objectives. The design of this study is analytical as descriptive approaches.

### **3.1.2 Source of Data and Data Collection:**

The conduct any research data collection is the major task. Information is the lifeblood of research study. To fulfill the objectives of this research study primary and secondary source of data have been used. Primary data are based on a questionnaire as well as unstructured dialogue and discussion with the executives and other staff of KMSS as well as DDC.

#### **3.1.2.1 Primary Data (Population and Sample):**

The primary data are collected from the employees of KMSS, who are working in the Head Office. Sample size is randomly taken specially covering planning, sales and production department. Primary data are collected using question and observations consisting of both closed and open end question through direct interview. The primary data are collected by distributing questionnaire to 12 members out of total members of KMSS, out of 12 members 8 members' return back answer with kind co-operation, which is 66.67% and used for the analysis purpose. Research supplementary questionnaire and list of respondent presented in appendix 1 & 2.

#### **3.1.2.2 Secondary Data:**

Secondary data have been taken from following sources:

##### **I. Internal Sources (Unpublished Reports)**

- ) Annual Report of the DDC i.e. KMSS is one of the unit of the DDC
- ) Annual Balance Sheet of the DDC i.e. KMSS is one of the unit of the DDC

) Annual Income Statement of the DDC i.e. KMSS is one of the unit of the DDC

## **II. External Sources (Published Reports)**

) Previous studies made in the field.

) Published articles.

) Articles from Journals, magazines and news paper.

## **III. Diagrammatic Presentation of Data:**

Since the figures of the collected data are big and confusing in order to avoid difficulty in studying them, such numerical data are presented in different types of diagrams and graphs to make more attractive and impressive to study. Types of diagrams and graphs those have been used to analyze the data are:

) One dimensional diagrams like:

- o Simple Bar Diagrams

### **3.1.3. Coverage Time:**

This research study covers five years for the purpose of long-trend analysis and one year for the purpose of short-trend profit plan analysis. Long range trends covers from fiscal years 2056/57 to 2063/64 analysis of tactical sales budget and actual is basically made on this 8 years basis.

### **3.1.4. Data Gathering Procedures:**

As the study is based on secondary and primary data primary information is collected developing a scheduled questionnaire and as well as on structured dialogue and discussion with the executives and other staff of KMSS as well as DDC.

### **3.1.5. Data Processing Procedures and Tool Used:**

Data collected from primary and secondary sources are managed analyzed and presented as per required tables and formats. Such tables and formats are interpreted and explained wherever necessary. To analyze the collected data financial tools such as cost volume profit analysis and statistical tools such as mean, coefficient of variation correlation, regression, time series, percentage, graphs, diagrams etc have been used as per need.

**Mean:** Mean, also known as arithmetic's 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

$$\text{Mean } \bar{X} = \frac{X_1 + X_2 + X_3 + \dots + X_n}{n}$$

Where,  $\bar{X}$  = the symbol we use for mean

$\Sigma$  = summation,  $X_i$  = value of ith item  $X_i, I = 1, 2 \dots n$

$n$  = total number of items.

**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 targeted 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 targeted data or not. So, to find out the position of both targeted and actual data we can use these tools.

It is calculated by using following formulas:

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

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.

**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

$$PE(r) = 0.6745 \frac{\sum f_i Z_r A}{\sqrt{n}}$$

Where r = correlation coefficient.

n = number of items.

**Standard deviation (S.D):** It is the most widely used measure of dispersion of a series and is commonly denoted by the symbol 'σ' (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:

$$\text{Standard deviation} = \sqrt{\frac{\sum f_i X_i^2}{N} - \left(\frac{\sum f_i X_i}{N}\right)^2}$$

and  $\sqrt{\frac{\sum f_i Y_i^2}{N} - \left(\frac{\sum f_i Y_i}{N}\right)^2}$

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

**Coefficient of variation (C.V):** it is defined as mean sum of square of the variety values from the arithmetic mean. It is obtained by using the formula:

$$C.V = \frac{\sum x^2}{X} \times 100\%$$

Where C.V. = Coefficient of Variation

$\sigma_x$  = Standard deviation

$\bar{X}$  = Arithmetic Mean

**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.

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

**Research Variables:** The major research variable of this present study is Sales Budget relating of short term and long term periods of KMSS.

## **CHAPTER-IV**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 Introduction**

Profit planning and control is one of the important management tools which are used to plan operation. Profit plan refers estimation and predetermination of revenue, sales quantity, production quantity, material purchase quantity and so on. So that, the profit planning and control has wide application. Manufacturing is the physical or chemical transformation of materials or components into new products by power-driven machines or hands. The sector has been divided into the following five sub-factors:

- Food, Beverage and Tobacco sub sector.
- Textile and Garment sub-sector.
- Chemical sub-sector.
- Mechanical Engineering sub-sector.
- Electrical and Electronic sub-sector.

The manufacturing sector in Nepal is small but steadily growing. It has an increasing share in Gross Domestic Product (GDP) about near 10 percentages. Among those manufacturing public enterprises, DDC is one of these. To fulfill the objectives of the DDC, six milk supply schemes have been established by DDC all over the country. KMSS is one of them. The main objectives of the KMSS is to provide guaranteed market and fair price to the rural milk producers and to supply hygienic pasteurized milk and milk products to the urban customers of Kathmandu valley. Milk is necessary products for human being for developing their physical as well as mental condition. It is impossible to produce milk everywhere in the urban areas and other side, rural areas are suitable for produce milk. So it has necessary to play as a middle man role to balance between the rural milk production and milk demand, which is fulfilled by DDC.

The main purpose of this chapter is to examine the budgeting procedure in the context of profit planning in manufacturing public enterprise. Therefore KMSS has been selected as a case study. For fulfillment the objective, this chapter will analyze the various functional budgets, achievements and respective variables and variances of this manufacturing industry.

#### **4.2 Sales Budget Prepared by KMSS:**

To the application of profit planning, an enterprise should prepare a number of plans. Among all the plans, sales budget is the first and important steps in developing the overall budgeting process of an enterprise. Sales budget is an estimation of sales for a certain period in future. It is concerned as cash generating source and basic for development of other functional budget. Sales budget directly affect to other functional budgets. The main purpose of sales budget are, to reduce uncertainty about future revenue, to incorporate management judgments and decision into the planning process, to provide necessary information for development for developing other elements of a comprehensive profit plan, and to facilitate management control of sales activities. Sales budget is prepared on the basis of sales forecast. Sales forecast is one of the major elements of sales plan. Sales budget is prepared, by product, by time, by region and in unit and amount. There are two types of sales budget. One is long term-sales budget which is prepared for more than one year, and second is short-term sales budget which is prepared for one accounting year and it is prepared, by quarter, by month etc.

One of the projects of DDC is KMSS; KMSS has practiced of preparing short range sales budget for the coming fiscal year. It does not seem to prepare long range sales budget, by product, by interim time period, and by territories. DDC is producing more than six dairy products other than pasteurized milk. DDC is the market leader, before establishing other private dairy firm. At that period DDC was single dairy product industry and was not able to fulfill the total demand of the market. Due to the establishment of other dairy product industry in the country, DDC has lost gradually its market share. Now DDC supply its product by seven-supply center and 1751 sales booths. KMSS is not a separate corporation

it is one of the project of DDC. It is controlled and governed by DDC .The distribution channel followed by KMSS for marketing are;

- Producer (KMSS) -Dealer-Consumer
- Producer (KMSS) -Consumer

Analyses of past sales have been made to know about previous sales trend and to forecast the future sales trend of KMSS. The following table represents budget sales and actual sales achievement of KMSS.

### 4.3 Variance between Budgeted Sales and Actual Sales:

**Table No.: 4.1**

**Sales Budget and Achievement**

[In Rs 00,000]

Fiscal Year	Budgeted Sales (Target)	Actual sales	Achievement %	Variance unfavorable (budgeted sales - Actual sales)	
				In Amount	In Percentage(%)
2056/57	8811.34	8076.83	91.66	734.51	8.33
2057/58	9603.46	9010.75	93.83	892.71	6.17
2058/59	10646.56	9248.97	86.87	1397.59	13.13
2059/60	10578.17	9982.27	94.37	595.9	5.63
2060/61	10675.5	9571.83	89.66	1103.67	10.34
2061/62	11688.75	10811.67	92.50	877.08	7.50
2062/63	12518.05	10823.02	86.50	1695.03	13.54
2063/64	14010.68	11526.53	82.27	2484.15	17.73

[Source: Annual report of Account Department of KMSS]

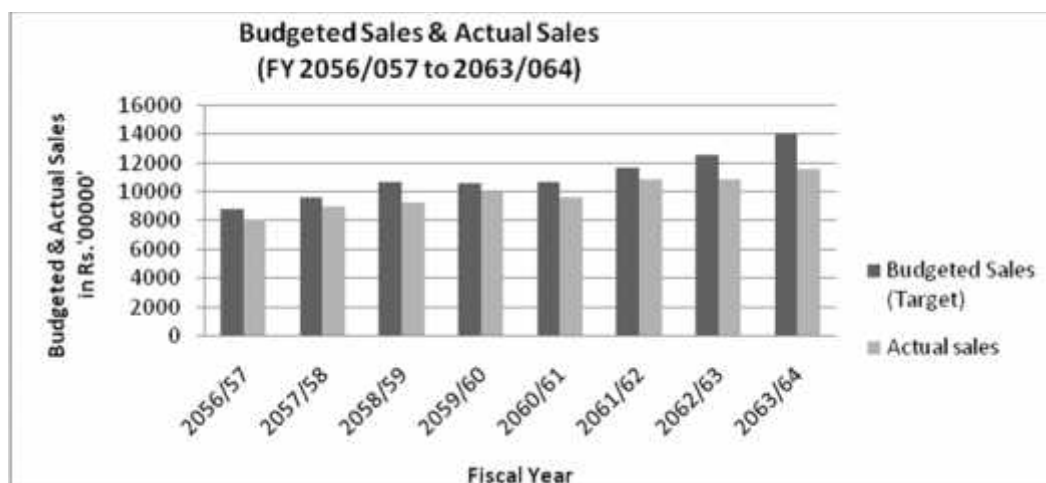
The year i.e. 2059/60 sales achievement is higher than other fiscal years, which is 94.37 percentage. Whereas sales achievement in the FY 2056/57 is 91.66 of the target sales which are satisfactory. But sales achievement is in increasing order to the fiscal years 2057/58 in comparison FY 2056/57 by 2.71%. But unfortunately the sales achievement on the FY 2058/59 is decreased by 6.96%. Budgeting sales is in increasing order by management but achievement is quite lower than FY 2057/58. Here we can see management must be sincere to achieve the actual sales in increasing order. From the

table, we can see that the target sales are its quite increasing order, by higher expectation than the previous year.

In later fiscal years, sales achievement percentages as composed to the target sales are, 86.87 percentages in FY 2058/59, 94.37 percentages in FY 2059/60, it is the highest achievement of sales because of increasing sales by 7.5 percentages. We have budgeted sales in its increasing order but achievement is fluctuating. Sales achievement in FY 2063/64 is 82.27 percentages; it is the least achievement during this fiscal year, which shows the high fluctuation the 12.1 percentages during the FY 2059/60.

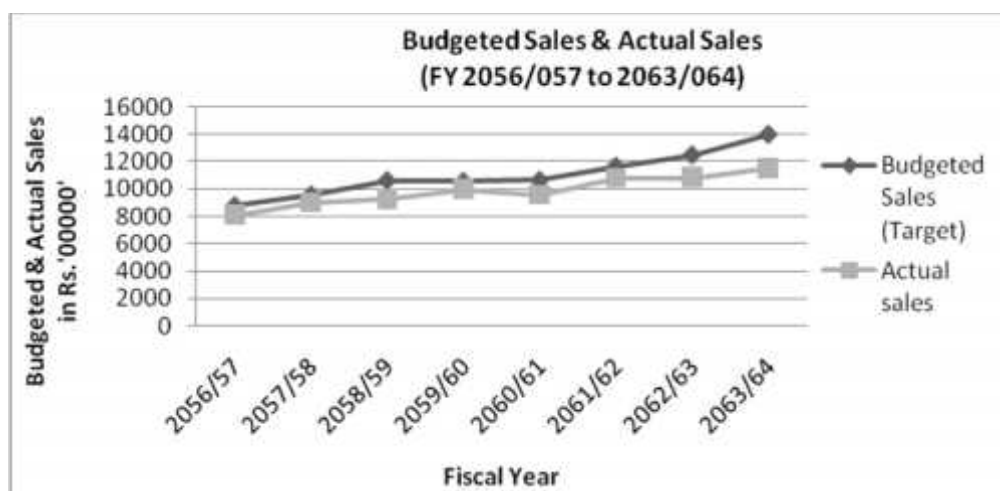
The unfavorable variance between target sales and actual sales are; 8.33 percentages in the FY 2056/57, 6.17 percentages in the FY 2057/58, 13.13 percentages in the FY 2058/59, 5.63 percentages in the FY 2059/60, 10.34 percentages in the FY 2060/61, 7.50 percentages in the FY 2061/62, 13.54 percentages in the FY 2062/63 and 17.73 percentages in the FY 2063/64. The above table shows the highly unfavorable variances in the FY 2063/64 by 17.73 percentages and smaller unfavorable variance in the FY 2059/60 by 5.63 percentages. Variance percentages show that, management should try to reduce the variance between target sales and actual sales. The above table shows that achievements are generally lower than targeted sales. The analysis of the table shows that there is no systematic and scientific sales plan. There is neither trend to increase sales not to decrease. Target is not set about the previous year's sales performance. KMSS's budgeted sales and actual sales can be presented in the bar diagram and graph.

**Diagram No.:1**



The above diagram Actual Sales never met the Budgeted Sales. In FY 2059/60 we have a highest achievement of 94.37 %; in the FY 2063/64 we have the lowest achievement of 82.27 %. In the between years of neither study we found that the achievement % is neither increasing order nor decreasing order. Due to such fluctuating nature of sales trend, it is difficult to project the future potential sales.

**Graph No.:1**



The above graph shows that the trend of sales budget and sales achievement. The graphical presentation indicates that the few gap between target sales and actual sales. In the FY gap between budgeted and actual sales is very high; in the FY a small gap between budgeted sales and actual sales as compared to the other years. In the figure we see that the budgeted sales are in increasing trend, but the actual sales are in zigzag order.

In order to find out the nature of variability of budgeted sales and actual sales of different years, statistical tools such as arithmetic mean, standard deviation, coefficient of variation and correlation and probable error of the budgeted and actual sales figures of KMSS are applied.

### 4.3.1 Statistical tools used:

**Table No.: 4.2**  
**Statistical Tools**

[Amount in Rs.00000]

Fiscal years	Budgeted sales(X)	Actual sales(Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$x^2$	$y^2$	xy
2056/57	8811.34	8076.83	- 2255.224	- 1804.654	5086035.29	3256776.06	4069899.012
2057/58	9603.46	9010.75	- 1463.104	- 870.734	2140673.315	758177.6988	1273974.398
2058/59	10646.56	9248.97	- 420.004	- 632.514	176403.36	400073.9602	265658.4101
2059/60	10578.17	9982.27	- 488.394	100.786	238528.6992	10157.8178	-49223.2777
2060/61	10675.5	9571.83	-391.064	- 309.654	152931.0521	95885.59972	121094.5319
2061/62	11688.75	10811.67	622.186	930.186	387115.4186	865245.9946	578748.7066
2062/63	12518.05	10823.02	1451.486	941.536	2106811.608	886490.0393	1366626.322
2063/64	14010.68	11526.53	2944.116	1645.046	8667819.021	2706176.342	4843206.249
N= 8	X = 88532.51	Y = 79051.87	x = 0	y = 0	x <sup>2</sup> = 18956317.76	y <sup>2</sup> = 8978983.512	xy = 12469984.35

#### a. Calculation of mean, Standard deviation and Coefficient of variation:

##### 1. For the Budgeted Sales:

$$I. \text{ Mean } \bar{X} = \frac{x}{N} = \frac{88532.51}{8} = 11066.564$$

We have,

$$\text{Mean } \bar{X} = \frac{x}{N}$$

$$\text{Standard deviation } (\exists) = \sqrt{\frac{(X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variance (CV)} = \frac{\exists}{X} \times 100$$

$$II. \text{ Standard deviation } (\exists) = \sqrt{\frac{(X - \bar{X})^2}{N}}$$

$$= \sqrt{\frac{x^2}{N}} = \sqrt{\frac{18956317.76}{8}} = 1539.33$$

$$III. \text{ Coefficient of variance (CV)} = \frac{\exists}{X} \times 100 = \frac{1539.33}{11066.564} \times 100 = 13.91 \%$$

##### 2. For Actual Sales:

$$I. \text{ Mean } = \frac{y}{N} = \frac{79051.87}{8} = 9881.484$$

$$\begin{aligned} \text{II. Standard deviation } (\Xi) &= \sqrt{\frac{\sum (X - \bar{X})^2}{N}} \\ &= \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{8978983.512}{8}} = 1059.42 \end{aligned}$$

$$\text{III. Coefficient of variance (CV)} = \frac{\Xi}{\bar{Y}} \times 100 = \frac{1059.42}{9881.484} \times 100 = 10.72\%$$

**b. Calculation of correlation of coefficient:**

$$\begin{aligned} r(xy) &= \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} \\ &= \frac{12469984.35}{\sqrt{18956317.76 \times 8978983.512}} \\ &= \frac{12469984.35}{13046396.61} \\ &= 0.9558183 \end{aligned}$$

The calculation value of 'r' is 0.9558183, the value of 'r' shows that, there is positive correlation between actual sales and budgeted sales. Increase in budgeted sales will also increase in actual sales or vice-versa.

**c. Calculation of Probable Error(P.E):**

$$\begin{aligned} \text{P.E (r)} &= 0.6745 \times \frac{1 - r^2}{\sqrt{n}} \\ &= 0.6745 \times \frac{1 - (0.9558183)^2}{\sqrt{8}} = 0.6745 \times \frac{1 - 0.9136}{2.8284271} = 0.02060 \end{aligned}$$

The calculation value of probable error is 0.02060 considering probable error PE (r). It is found that the value of 'r' is more than PE (r) i.e. [0.9558183 > 0.02060]. So it can be concluded that calculated value of 'r' is significant and actual sales will go in the same direction of budgeted sales.

**Table No.: 4.3**

**Summary of Arithmetic Mean, Standard Deviation, Coefficient of variation, Correlation, Probable Error of Budgeted sales and Actual sales.**

<b>Statistical tools</b>	<b>Budgeted Sales (x)</b>	<b>Actual sales (y)</b>
Mean ( $\bar{X}$ )	11066.564	9881.484
SD ( $\Xi$ )	1539.33	1059.42
CV	13.91	10.72
Correlation (r)	0.9558183	
PE	0.02060	

Regression line can be fitted to show the relationship between the Budgeted Sales and Actual Sales and also to forecast the possible actual sales with the given budgeted sales. For this purpose, it is assumed that, Actual Sales (y) is dependent upon Budgeted sale (x). So the regression line of actual sales (y) on Budgeted Sales (x) is given by, the regression line y on x

$$y - \bar{Y} = r \frac{\Xi y}{\Xi x} (x - \bar{X})$$

$$\text{or, } y - 9881.484 = 0.9558183 \times \frac{1059.42}{1539.33} \times (x - 11066.564)$$

$$\text{or, } y - 9881.484 = 0.65782712 (x - 11066.564)$$

$$\text{or, } y - 9881.484 = 0.65782712x - 7279.885924$$

$$\text{or, } y = 0.65782712x + 9881.484 - 7279.885924$$

$$\dots y = 0.65782712x + 2601.598076$$

By the regression equation, we can see that, there is positive relationship between the Budgeted sales and Actual sales. After the constant amount of 2601.598076 (00,000), actual sales will be increased by 0.65782712 in one rupees of Budgeted sales. From the above equation we know that when we increased in the same ratio. So, we must increase in the Budgeted sales for achievement the target sales in the figure.

From the above trends equation we can estimation the actual sales for FY 2063/64. The value of X for the FY 2063/64 (y):

$$Y=a+bx$$

Fitting straight line trend least square for actual sales trend and possible future production of KMSS.

**d. Calculation of Trend:**

**Table No.: 4.4**

**Sales Trend Calculation**

Fiscal years	Actual sales(Y)	$x = X - \bar{X}$	$x^2$	$xy$
2056/57	8076.83	-3	9	-24230.49
2057/58	9010.75	-2	4	-18021.5
2058/59	9248.97	-1	1	-9248.97
2059/60	9982.27	0	0	0
2060/61	9571.83	1	1	9571.83
2061/62	10811.67	2	4	21623.34
2062/63	10823.02	3	9	32469.06
2063/64	11526.53	0	0	0
N= 8	Y = 79051.87	$x = 0$	$x^2 = 28$	$xy = 12163.27$

We have,

$$Y = a + bx$$

$$\text{or, } a = \frac{\sum x^2 \cdot y - \sum xy \cdot \sum x}{N \sum x^2 - (\sum x)^2}$$

$$= \frac{28 \times 79051.87 - 12163.27 \times 0}{8 \times 28 - (0)^2} = 9881.48375$$

Again,

$$b = \frac{N \sum xy - \sum x \cdot \sum y}{N \sum x^2 - (\sum x)^2}$$

$$= \frac{8 \times 12163.27 - 0 \times 79051.87}{8 \times 28 - (0)^2} = \frac{97306.16}{224}$$

$$= 434.4025$$

For the fiscal year 2064/65, the value of x will be y due to assume base year:

$$y = a + bx$$

$$\text{or, } y = 9881.48375 + 4 \times 434.4025$$

$$= 9881.48375 + 1737.61 = 11619.09375$$

If the trend does not change the possible sales for 2064/65 will be Rs. 11619.09375 (00,000).

#### **4.4 Segregation of cost:**

Segregation of the cost is one of the major tools of planning and controlling the cost incurred. To plan about the expenses or cost, the knowledge of cost behaviour is most.

Cost or expenses in relation to the change in output can be categorized in three ways:

) Fixed costs

) Variable costs

) Semi- variable costs

##### **4.4.1 Fixed costs:**

Fixed costs are those expenses, which remaining constant in total, regardless of fluctuation in output over a period of time or over a batch of output. Example: Rent of premises, salary to the staff.

##### **4.4.2 Variable costs:**

Variable costs are such expenses, which changes in total directly with changes in output, but remain constant per unit. Example - Material cost, Labour cost.

##### **4.4.3 Semi-variable costs:**

These costs are neither fixed costs nor variable costs. These expenses changes in output but not proportionately.

Segregation of costs of the KMSS has been made as;

**Table No.: 4.5**

**Cost classification**

<b>Cost Items</b>	<b>Cost Type</b>	<b>Variable cost in Amount</b>	<b>Fixed cost in Amount</b>
Collecting expenses	Variable	47241000	
Processing expenses	Variable	106959000	
Selling expenses	Variable	27254000	
Administrative expenses	Fixed		12562000
Deprecation	Fixed		12500000
Interest on Loan	Fixed	-	-
Gratuity expenses	Fixed	-	63,85,000
<b>Total</b>		<b>18,14,54,000</b>	<b>3,14,47,000</b>

#### **4.5 Break Even Analysis:**

Cost volume profit (CVP) analysis is a management accounting tools for profit planning. It shows the effect of cost volume and profit at different levels and helps to depict the level of activity that is required to be at break even or to gain profit. There are three factors cost-volume-profit, which are interconnected and depend upon sales, selling price to a greater extent will depend upon the volume of production. Cost volume profit analysis provides answers to questions such as;

- What sales volume is needed to cover fixed cost?
- What sales volume is needed to avoid losses?
- What sales volume is necessary to earn a desired profit?

Calculation of the breakeven point of KMSS has been made under the following assumptions:

- ) It is based on the profit and loss account of the fiscal year 2063/64.
- ) Activity base is selected in terms of sales revenue.
- ) Selling price, variable cost ratio and fixed cost for the year is assumed as constant.
- ) Opening balance stocks and closing balance stocks are ignored for calculation.

### 1. Variable cost volume ratio (V/V Ratio):

Variable cost volume ratio shows that the proportion of the variable cost to each Rs. of sales revenues. The formula to calculate V/V ratio is as follows:

$$V/V \text{ ratio} = \frac{\text{Variable cost}}{\text{Sales revenue}}$$

$$\text{or, } V/V \text{ ratio} = \frac{181454000}{1152653000} = 0.157423$$

V/V ratio is 0.157423 i.e. proportion of the variable cost is 15.74% to Rs. of sales.

### 2. Profit Volume Ratio (P/V Ratio):

The relationship between the value of sales and contribution is known as P/V ratio. This ratio shows the proportion of contribution margin left for fixed cost and profit as per Rs. of sales. The formula of P/V ratio is as follows:

$$P/V \text{ ratio} = 1 - \frac{\text{Variable cost}}{\text{Sales}}$$
$$= 1 - \frac{181454000}{1152653000} = 1 - 0.157423$$

By the help of V/V ratio and P/V ratio, we can easily calculate to Break Even Point of KMSS is as follows;

### 3. Break Even Point:

$$(\text{in Rs.}) = \frac{\text{Fixed cost}}{P/V \text{ ratio}}$$

$$\text{Or, BEP (in Rs.)} = \frac{31447000}{0.842577}$$

$$\text{Or, BEP (in Rs.)} = 3,73,22,404.96$$

According to the calculation KMSS's Break Even Point sales revenue is Rs. 3,73,22,405. We found here the Rs. 1115330595 difference between actual sales and BEP sales.

### 4. Expected profit:

To, find the expected profit/loss for the FY 2063/64 is calculated by following formula;

$$\text{Expected profit/loss} = (\text{Budgeted sales} \times P/V \text{ ratio}) - \text{Fixed cost}$$
$$= (1401068000 \times 0.842577) - 31447000 = 1,14,90,60,672$$

The expected profit for the FY 2063/64 is 1,14,90,60,672 if the present cost structure remains constant.

#### 4.6 Production Budget Prepared by KMSS:

Production budget is the second step in developing profit plan, which is prepared on the basis of sales budget. The purpose of production is to fulfill the requirement of sales quantity and inventory in case of manufacturing enterprise. Production plan is the estimation of the volume of goods to be manufactured during a given period. Production plan is based on the capacity of plant, requirement of sales budget and inventory of finished goods. Production budget is presented in this way:

$$\text{Production (unit)} = \text{Sales} + \text{Closing Inventory} - \text{Opening Inventory}$$

KMSS has trend of preparing short- range production budget for one fiscal year. KMSS prepares production plan on the basis of sales budget and planned inventory. Main responsibilities of preparing production plan are production department, project manager and other high officials.

The following table represents the budgeted production and actual production in units from FY2056/57 to 2063/64.

**Table No.:4. 6**  
**Variance between Budgeted Production & Actual Production**  
**Production Budget and Achievement**

[In units 00,000]

Fiscal Year	Budgeted Production	Actual Production	Achievement %	Variance unfavourable (Budgeted production - Actual production)	
				In Amount	In Percentage(%)
2056/57	516.97	467.65	90.46	49.32	9.54
2057/58	512.97	474.91	92.58	38.06	7.42
2058/59	549.75	502.03	91.32	47.72	8.68
2059/60	558.95	505.85	90.50	53.10	9.50
2060/61	529.24	483.36	91.33	45.88	8.67
2061/62	578.45	534.54	92.41	43.91	8.00
2062/63	547.63	495.72	90.52	51.91	9.48
2063/64	540.19	497.24	92.05	42.95	7.95

The year i.e. 2057/58 production achievement is higher than other fiscal years, which is 92.58 percentages. Whereas production achievement in the FY 2056/57 is 90.46 of the target production which are satisfactory. But production achievement is in increasing order to the fiscal years 2057/58 in comparison FY 2056/57 by 2.12%. But unfortunately the production achievement on the FY 2058/59 is decreased by 1.26%. Budgeting production is in fluctuating order in this way achievement is quite fluctuating than FY 2057/58. Here we can see management must be sincere to achieve the actual production in increasing order. From the table, we can see that the target productions are its quite increasing order, by higher expectation than the previous year.

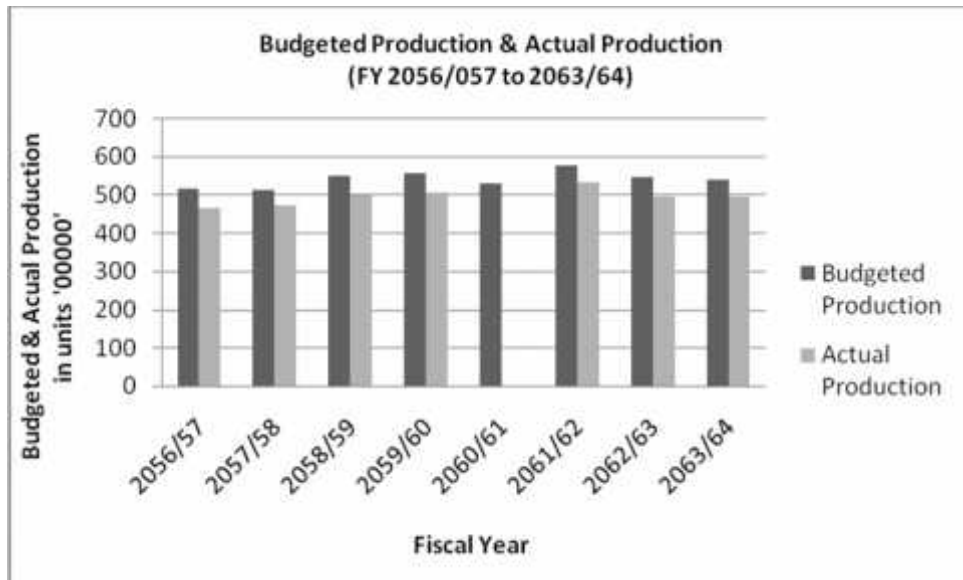
In later fiscal year, production achievement percentages as compared to the target productions are 91.32 percentages in FY 2058/59, 90.5 percentages in FY 2059/60; it is the lowest achievement of production because of decreasing production by 0.82 percentages. We have budgeted production in its fluctuating order so achievement is also fluctuating. Production achievement in FY 2056/57 is 90.46 percentages; it is the least achievement during the fiscal year, which shows the high fluctuation the 2.12 percentages during the FY 2057/58.

The unfavorable variance between target productions and actual productions are; 9.54 percentages in the FY 2056/57, 7.42 percentages in the FY 2057/58, 8.68 percentages in the FY 2058/59, 9.50 percentages in the FY 2059/60, 8.67 percentages in the FY 2060/61, 8.00 percentages in the FY 2061/62, 9.48 percentages in the FY 2062/63 and 7.95 percentages in the FY 2063/64. The above table shows the highly unfavorable variances in the FY 2056/57 by 9.54 percentages and smaller unfavorable variances in the FY 2057/58 by 7.42 percentages. Variance percentages show that, management should try to reduce the variance between target production and actual production. The above table shows that achievements are generally lower than targeted production. The analysis of the table shows that there is no systematic and scientific production plan. There is neither trend to increase production nor to decrease. Target is not set about the previous year's

production performance. KMSS's budgeted production and actual production can be presented in the bar diagram and graph.

**Diagram No: 2**

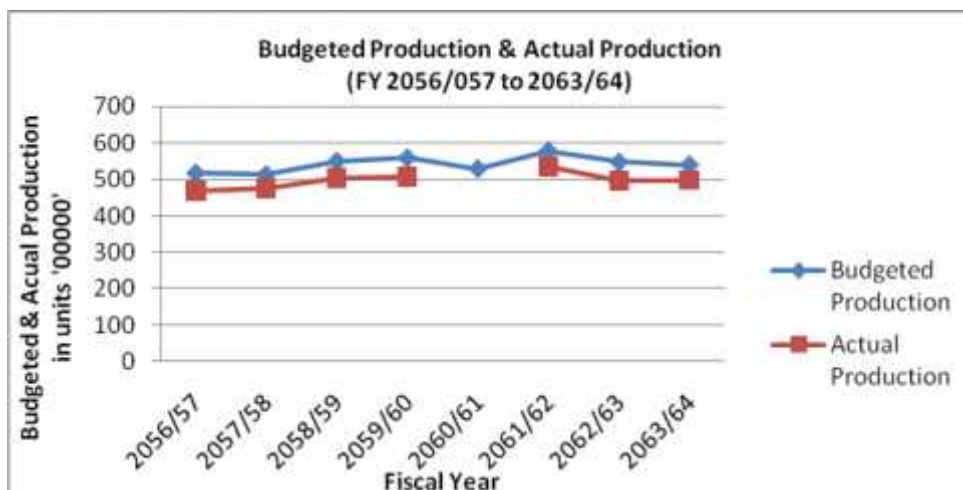
**Budgeted production & Actual production**



The above diagram Actual production never met the Budgeted production. In FY 2057/58 we have a highest achievement of 92.58 %; in the FY 2056/57 we have the lowest achievement of 90.46 %. In the between years of neither study we found that the achievement % is neither increasing order nor decreasing order. Due to such fluctuating nature of productions trend, it is difficult to project the future potential production.

**Graph No.:2**

**Budgeted production and Actual production**



The above graph shows that the trend of production budget and production achievement. The graphical presentation indicates that the few gap between target production and actual production. In the FY gap between budgeted and actual production is very high; in the fiscal year a small gap between budgeted production and actual production as compared to the other years. In the figure we see that the budgeted productions are in increasing trend, but the actual productions are in zigzag order.

In order to find out the nature of variability of budgeted productions and actual productions different years, statistical tools such as arithmetic mean, standard deviation, coefficient of variation and correlation and probable error of the budgeted and actual productions figures of KMSS are applied.

**Statistical Tools used:**

**Table No. : 4.7**

[In units 00,000]

Fiscal years	Budgeted Production(X)	Actual Production (Y)	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$x^2$	$y^2$	xy
2056/57	516.97	467.65	-24.8	-27.51	615.4	756.80	682.2
2057/58	512.97	474.91	-28.8	20.25	829.44	410.06	583.2
2058/59	549.75	502.03	7.98	6.87	63.68	47.20	54.82
2059/60	558.95	505.85	17.18	10.69	295.15	114.28	183.65
2060/61	529.24	483.36	-12.53	-11.8	157	139.24	147.85
2061/62	578.45	534.54	36.68	39.38	1345.42	1550.78	1444.46
2062/63	547.63	495.72	5.86	0.56	34.34	0.31	3.28
2063/64	540.19	497.24	-1.58	2.08	2.49	4.33	-3.29
N= 8	X= 4334.15	Y = 3961.3	x = 0	y = 0	$x^2 = 3342.56$	$y^2 = 3023$	xy = 3096.22

**a. Calculation of mean, Standard deviation and Coefficient of variation:**

1. For the Budgeted Production:

I. Mean  $\bar{X} = \frac{\sum x}{N} = \frac{4334.15}{8} = 541.77$

We have,

$$\text{Mean } \bar{X} = \frac{\sum x}{N}$$

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

$$\text{Coefficient of variance (CV)} = \frac{\sigma}{\bar{X}} \times 100$$

$$\begin{aligned} \text{II. Standard deviation } (\sigma) &= \sqrt{\frac{\sum (X - \bar{X})^2}{N}} \\ &= \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{3342.56}{8}} = 20.44 \end{aligned}$$

$$\text{III. Coefficient of variance (CV)} = \frac{\sigma}{\bar{X}} \times 100 = \frac{20.44}{541.77} \times 100 = 3.7728 \%$$

2. For Actual Production:

$$\text{I. Mean} = \frac{\sum y}{N} = \frac{3961.3}{8} = 495.16$$

$$\begin{aligned} \text{II. Standard deviation } (\sigma) &= \sqrt{\frac{\sum (Y - \bar{Y})^2}{N}} \\ &= \sqrt{\frac{\sum y^2}{N}} = \sqrt{\frac{3023}{8}} = 19.44 \end{aligned}$$

$$\text{III. Coefficient of variance (CV)} = \frac{\sigma}{\bar{Y}} \times 100 = \frac{19.44}{495.16} \times 100 = 3.9260$$

**b. Calculation of correlation of coefficient:**

$$\begin{aligned} r(xy) &= \frac{\sum xy}{\sqrt{\sum x^2 \times \sum y^2}} \\ &= \frac{3096.22}{\sqrt{3342.56 \times 3023}} \\ &= \frac{3096.22}{3178.7673} \\ &= 0.974032 \end{aligned}$$

The calculation value of 'r' is 0.974032, the value of 'r' shows that, there is positive correlation between actual production and budgeted production. Increase in budgeted production will also increase in actual production or vice-versa.

**c. Calculation of Probable Error(P.E):**

$$P.E (r) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \times \frac{1 - (0.974032)^2}{\sqrt{8}} = 0.6745 \times \frac{1 - 0.95}{2.8284271} = 0.011923$$

The calculation value of probable error is 0.011923 considering probable error PE (r). It is found that the value of 'r' is more than PE (r) i.e. [0.974032 > 0.011923]. So, it can be concluded that calculated value of 'r' is significant and actual production will go in the same direction of budgeted production.

Summary of Arithmetic Mean, Standard Deviation, Coefficient of variation, Correlation, Probable Error of Budgeted production and Actual production.

**Table No.: 4.8**

**Summary of Arithmetic Mean, Standard Deviation, Coefficient of variation, Correlation, Probable Error of Budgeted sales and Actual sales.**

Statistical tools	Budgeted production (x)	Actual production (y)
Mean ( $\bar{X}$ )	541.77	495.16
SD ( $\Xi$ )	20.44	19.44
CV	3.7728	3.9260
Correlation (r)	0.974032	
PE	0.011923	

Regression line can be fitted to show the relationship between the Budgeted Production and Actual Production and also to forecast the possible actual production with the given budgeted production. For this purpose, it is assumed that, Actual production (y) is dependent upon Budgeted production (x). So the regression line of actual production (y) on Budgeted production (x) is given by, the regression line y on x

$$y - \bar{Y} = r \frac{\Xi y}{\Xi x} (x - \bar{X})$$

$$\text{Or, } y - 495.16 = 0.974032 \times \frac{19.44}{20.44} \times (x - 541.77)$$

$$\text{Or, } y - 495.16 = 0.926378771 (x - 541.77)$$

$$\text{Or, } y - 495.16 = 0.926378771x - 501.8842268$$

$$\text{Or, } y = 0.926378771x + 495.16 - 501.8842268$$

$$\dots y = 0.926378771x + 6.7242268$$

By the regression equation, we can see that, there is positive relationship between the Budgeted production and Actual production. After the constant amount of 6.7242268 (00,000) actual production will be increased by 0.926378771 in one unit of Budgeted production. From the above equation we know that when we know that when we increase in the budgeted production the actual production would be increased in same ratio. So, we must increase in the Budgeted production for achievement the target production in the figure.

From the above trends equation we can estimation the actual production for FY 2063/64. The value of X for the FY 2063/64 (y):

$$y = a + bx$$

Fitting straight line trend least square for actual production trend and possible future production of KMSS.

#### d. Calculation of Trend:

**Table No.: 4.9**

**Production Trend Calculation**

<b>Fiscal years</b>	<b>Actual production (Y)</b>	<b>x = X - <math>\bar{X}</math></b>	<b>x<sup>2</sup></b>	<b>xy</b>
2056/57	467.65	-3	9	-1402.95
2057/58	474.91	-2	4	-949.82
2058/59	502.03	-1	1	-502.03
2059/60	505.85	0	0	0
2060/61	483.36	1	1	483.36
2061/62	534.54	2	4	1069.08
2062/63	496.72	3	9	1487.16
2063/64	497.24	0	0	0
<b>N= 8</b>	<b>Y = 3961.3</b>	<b>x = 0</b>	<b>x<sup>2</sup> = 28</b>	<b>xy = 184.8</b>

We have,

$$Y = a + bx$$

$$\begin{aligned} \text{Or, } a &= \frac{\sum x^2 \cdot \sum y - \sum xy \cdot \sum x}{N \sum x^2 - (\sum x)^2} \\ &= \frac{28 \times 39613.3 - 184.8 \times 0}{8 \times 28 - (0)^2} = 495.1625 \end{aligned}$$

Again,

$$\begin{aligned} b &= \frac{N \sum xy - \sum x \cdot \sum y}{N \sum x^2 - (\sum x)^2} \\ &= \frac{8 \times 184.8 - 0 \times 3961.3}{8 \times 28 - (0)^2} = \frac{1478.4}{224} = 6.6 \end{aligned}$$

For the fiscal year 2064/65, the value of x will be y due to assume base year:

$$y = a + bx$$

$$\begin{aligned} \text{Or, } y &= 495.1625 + 4 \times 6.6 \\ &= 495.1625 + 26.4 = 521.5625 \end{aligned}$$

If the trend does not change the possible sales for 2064/65 will be units 521.5625 (00,000).

#### e. Calculation of Trend

**Table: 4.10**

#### **Profit Trend Calculation**

<b>Fiscal years</b>	<b>Budgeted Profit (Y)</b>	<b>x = X - <math>\bar{X}</math></b>	<b>x<sup>2</sup></b>	<b>xy</b>
2056/57	467.91	-3	9	-1403.73
2057/58	454.56	-2	4	-909.12
2058/59	307.79	-1	1	-307.79
2059/60	663.50	0	0	0
2060/61	464.20	1	1	464.20
2061/62	433.58	2	4	867.16
2062/63	748.76	3	9	2246.28
2063/64	1220.55	0	0	0
N= 8	Y = 4760.85	x = 0	x <sup>2</sup> = 28	xy = 957

We have,

$$Y = a + bx$$

$$\begin{aligned}\text{Or, } a &= \frac{\sum x^2 \cdot \sum y - \sum xy \cdot \sum x}{N \sum x^2 - (\sum x)^2} \\ &= \frac{28 \times 4760.85 - 957 \times 0}{8 \times 28 - (0)^2} = 595.11\end{aligned}$$

Again,

$$\begin{aligned}b &= \frac{N \sum xy - \sum x \cdot \sum y}{N \sum x^2 - (\sum x)^2} \\ &= \frac{8 \times 957 - 0 \times 4760.85}{8 \times 28 - (0)^2} \\ &= \frac{7656}{224} = 34.18\end{aligned}$$

For the fiscal year 2064/65, the value of x will be y due to assume base year:

$$y = a + bx$$

$$\begin{aligned}\text{Or, } y &= 595.11 + 4 \times 34.18 \\ &= 595.11 + 136.72 = 731.83\end{aligned}$$

If the trend does not change the possible sales for 2064/65 will be Rs. 731.83 (00,000).

Since actual profit and loss is accumulated with DDC's overall profit and loss account and separate data of KMSS cannot be segregated, the budgeted profit trend has been shown and the actual profit almost meet 90% of budgeted profit.

#### **4.7 Analysis of Primary Data or Primary Data used:**

The primary data is collected by distributing questionnaire 12 members out of the total members of KMSS. Out of the 12 members 8 members returned back answer with kind co-operation. I am very much pleased and heartily thanked for their kind co-operation, which is used in the study for the analysis purpose. They became very much helpful to know about the budgeting system, especially sales and production budgeting system. The analysis of opinions from the members is tabulated and presented in Appendix. Number of the primary data is collected in reference to different topic as per the purpose of study.

The analysis of primary data depicts the conclusion:

- ) 37.5% of the respondent's view that KMSS has been bases on management guidelines, another 37.5% thinks on its manufacturing capacity and 25% respondents think about the availability of milk.
- ) 75% of the respondent's view that KMSS prepared its sales on the basis of forecasting sales unit and rest 25% views that it dependent upon product and demand of market.
- ) 75% of the respondent's views are market studies and experiment method is used for sales forecasting and rest 25% is on the survey.
- ) 25% of the respondent's views trade promotion should use for sales promotion, another 25% of the respondent's views is using the sales force promotion and rest 50% think that consumer promotion should use for sales promotion tools.
- ) 75% of the respondent's think that cost oriented pricing method should use by KMSS and rest 25% think that pricing policies should be determined by competition oriented.
- ) 25% of the respondent's think that print media should use for media advertisement tool, another 25% think that audio media should use and rest 50% think that audio visual media should use for media advertisement tools.
- ) 62.5% of the respondent's think that sales are on cash and rest 37.5% think that sales are on cash and rest 37.5% think that sales are on both (cash and credit).
- ) 50% of the respondent's think competition is the reason of un-achievement for target sales. 12.5% think change in market trends and rest 37.5% think present conflict situation is the reason for un-achievement of target sales.
- ) All of the respondents are really ready to help for better future of KMSS.

#### **4.8 Major findings of the study:**

After the study and analysis of the study of sales planning in KMSS different facts have been found out by the researcher. DDC is one of the PEs of Nepal and KMSS is one of the projects of DDC 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 Kathmandu valley. KMSS's work is to systematize the collection of milk and produce the milk and products and distribute it to the people of Kathmandu valley.

Mostly KMSS is collecting milks from different remote village areas of the country and distributing it to the Kathmandu valley. There has been establishment of many private diaries which does the same .So there is a neck-to-neck competition with these Diaries. KMSS sets the targets but it is unable to meet that target due to the lack of commitment and effective marketing policy. Now the time has come that DDC as well as KMSS 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:

- ) KMSS has short term plan rather than long term planning.
- ) KMSS is not preparing its periodic performance report for the evaluation of performance to find the causes of poor achievement.
- ) KMSS has not collected all milk, which is offered by farmers.
- ) The collection of milk and sales of milk and milk production are increasing but production of milk and milk products are in fluctuation trends.
- ) The government has directly interferes to the price of raw milk and milk products. So the pricing policy of DDC is not scientific. In this way KMSS also facing such problem.
- ) There is no coordination between purchasing department to production and sales department.
- ) KMSS has over utilized plant capacity.
- ) Only the top level executives is involved in planning and decision but lower level participation are not encouraged.

- ) KMSS is not trying to adopt new technology for planning its production target.
- ) Sales forecasting is not based on realistic ground. KMSS has not practice of using statistical techniques in sales forecasting.
- ) Lack of the promotion in to the domestic market and competition to the other private diary company are the reason of under achievement of target sales.
- ) The industry does not have practice of preparing sales budget, although there is tentative sales target. There is a gap between target sales and actual sales. The correlation between target sales and actual sales shows a positive correlation. It means that the industry can meet its sales goals as specified in annual program.
- ) By the analysis, there is no systematic and realistic production plan. The production planning is rarely satisfactory. Actual production is far behind the targeted production.
- ) The industry has not practice of systematic and scientific tools used. Sales forecasting is based on the personal judgment of top level staffs.
- ) There is no systematic and effective cost control mechanism to reduce cost.
- ) Lack of communication between high level and low level staffs.
- ) Rate of increase in cost is higher than rate of change in sales.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary

We know that Nepal is a least developed and poor country. Nepal is also called as agricultural country. More than 81% 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). KMSS is the one of the project of DDC.

The KMSS is a manufacturing enterprise 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 people of Kathmandu valley at social acceptable prices as a commercially viable operation.

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 strong 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 Kathmandu Milk Supply Scheme; it is the one of the project of DDC in Nepal.

For the purpose of analyzing 8 years long term budgets data from FY 2056/57 to 2063/64 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 dissertations.

Various internal (management problems) and external (political, economical) problems has suffered Nepalese public and private enterprises in formulating and implementation profit plans. KMSS is the one of the project of DDC. So 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. KMSS has only the practice of setting long and short term sales, production plan. 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 Conclusion:

Conclusions those have been derived by this research study are enumerated as here under;

- ) KMSS is one of the projects of DDC. It can be considered as a big contributory of fulfill the Kathmandu valley's demands with quantitative and qualitative milk products.
- ) KMSS does not prepare the long-term profit plan but it prepares short term profit plan which is usually called as budget. The time period covered by the budget is one year, which is detailed by interim periods.
- ) The objectives of the industry are conflict between social objective and commercial objectives. KMSS has fixed the reasonable price of products by considering social objectives.
- ) KMSS has not enough considered on controllable and non-controllable variables.
- ) Sales achievements were always below than target sales. KMSS has not practice of systematic and scientific sales plan.
- ) KMSS has not practice of using statistical tools in sales forecasting.
- ) Sales plan were not made by considering all the components affecting sales.
- ) KMSS has clear objectives but it is lagging behinds the means to achieve such objectives.
- ) KMSS is one of the projects of DDC. DDC has lack with expertise to formulate strategic and tactical plans and to implement it.
- ) Different statistical tools used to analyze the sales, show the positive relationship between actual sales and budgeted sales.
- ) Regression equation about budgeted sales and actual sales indicates a positive trend of budgeted and actual sales.
- ) Cost-Volume-Profit analysis is not considered, while planning for profit to determine sales volume and selling price. An actual sale is just over than BEP sales.
- ) Portion of variable cost in every Rs. of sales is 15.74% and contribution margin ratio is 84.25%.

- ) Sales achievements of KMSS are highly fluctuates. This may be due to non availability of planning by management of the corporation.
- ) Private dairies are increasing heavily but them not affecting the KMSS. Demand of milk and milk products of KMSS are high due to high quality of products.
- ) Industry is slidly facing the problem of maintaining the desirable quality of products, which hampers to the sales.
- ) Industry generally does not use media for the promotion of sales.
- ) The distribution channel of KMSS:  
 KMSS                - Boothman                -Consumer  
 Collection channel:  
 Farmer                -Collection Centre                -CC                - KMSS.
- ) Industry is not facing any problem for the production because it has enough capacity, raw materials and labour.
- ) Industry has flexible production policy. Theoretical formula is applied for production.  
*Production = Sales Budget + Ending Inventory – Opening Inventory.*
- ) Production achievements were always below than target production. KMSS has not practice of systematic and scientific production plan.
- ) Production achievement of KMSS are highly fluctuates. This may be due to non availability of planning by management of the corporation.
- ) Industry has no system of preparing monthly performance reports. KMSS prepares monthly progress reports on ad hoc basis.
- ) Budgets are prepared just to fulfill the formalities but these are not effectively applied for the profit planning process.
- ) Overstaffing was found in KMSS.
- ) KMSS has not adopted new and advanced technology for the improvement the quality and production of products.

### **5.3 Recommendation:**

In the course of the research work, of sales planning in KMSS in Nepal, many weakness, different measures to be implemented by KMSS 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.

- 1) Now the time has changed, so KMSS 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. KMSS should be revising the price of its product. KMSS is not a separate entity it is one of the project of DDC.
- 2) Industry 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 industry. It may be impossible without long-term and short term planning.
- 3) There must be communication, co-ordination and participation of different levels of management as well as other employees in formulation and evaluation of industry goal and objectives.
- 4) 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.
- 5) The performance evaluation should be established in KMSS.
- 6) KMSS should consider demand. Market study while making the plan. It should also consider the price; supply and policies of other private dairies KMSS should attract the booth centers and consumers towards its products.
- 7) The industry 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.

- 8) 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.
- 9) 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.
- 10) 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.
- 11) KMSS should cut down the unproductive expenses.
- 12) KMSS should consider the sales plan on the time of planning production.
- 13) The sales manager should be appointed a well trained, qualified and, having knowledge of market study.
- 14) 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.
- 15) 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 KMSS.
- 16) Systematic periodic performance report in detailed should be prepared by KMSS by assigned responsibilities for accomplishing the planning objectives.
- 17) Sales achievement is too below the sales target. Necessary steps should be taken to those products sales and marketing which have negative correlation. A systematic approach of profit planning is needed.

- 18) Production budget should be prepared by interim time periods also Such production budget will help the industry to plan the necessary raw materials and other essential production factors at appropriate time.
- 19) For increasing productivity, KMSS should adopt variance analysis. Variance should be classified as favorable and unfavorable and causes of unfavorable variance should be identified and dignosised timely.
- 20) Overstaffing should be cut down.
- 21) To meet the desired sales target, KMSS should try to increase collection centers, sales centers and media support (i.e. advertising) for publicity of its products. KMSS 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 KMSS.

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