

# **CHAPTER - I**

## **INTRODUCTION**

### **1.1 General Background**

#### **a. Sales Planning and Budgeting**

Sales planning are essential for profit planning and control for the organization having business motive. It is also a starting point in preparing profit plan. It provides the basic management decision about marketing. It is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, most of the parts of profit plan are not realistic. Therefore, the management believes that if realistic sales plan cannot be developed, there is little justification for profit planning and control. Similarly, if it is really impossible to assess the future. Revenue potential business, there would be little or no incentives to investors and prospective investors. Hence, the sales plan is both ends and means of profit planning and control (Welsch, 2005).

The sales plan is the foundation for periodic planning in the firm because particularly all other enterprises' planning is built on it. The primary sources of cash is sales; the need to capital addition, the plan of expenses, the manpower requirement, production levels and other important operational depend on the volume of sales.

Although sales planning and sales forecasting are usually used synonymously, sales planning and forecasting are often confused. They have distinctly different purpose. A forecast is not a plan; rather it is a statement and/or quantified assessment of future condition about a particular subject based on one or more explicit assumptions. A forecast should always state the assumptions upon which it is based.

A forecast should be viewed as only one input for the development of sales plan. The management of the company may accept, modify or reject the

forecast. In contrast, a sales plan incorporates the management decision that are based on the forecast, other inputs and management judgments about such related items as sales volume price, sales, efforts, production, and financing.

A sales forecast is converted into a sales plan when management has brought to bear management judgment, planned strategy, commitment of resources and the managerial commitment to aggressive action on the sales goods. Sales forecasting is only one step in sales planning. That's why sales forecast is conditional. They normally must be prepared by prior to management decisions, price change, promotional programs, contraction of marketing activities and other resources commitments. Without proper sales planning, no company can survive with their goods according to customers' need for the long period of time. The planning is lifeblood of any organization.

A comprehensive sales planning includes both strategic and tactical sales plans. A sales plan incorporates such management decisions as objectives, goals, strategies, etc. These translate into planning decisions about planned volume of goods, services, price, promotion and other effect.

For the application of a profit plan, a company should prepare number of plans. One of them is sales plan; sales plan is the infrastructure of profit plan. Other plan of profit plan depends upon the sales plan. The prime objective of business is to earn net profit. So the first consideration of the sales must be made form profit plan. A sale is the major source of revenue and profit is the amount which is the difference between revenue and cost (Goet, 2004).

### **1.1.1 Types of Sales Planning**

#### **Long-range Sales Planning**

Long range sales planning is of more than 5 years but varies with the enterprise, sometimes extended to 10 years. Long range planning is one of the most difficult time spans involved in planning. As many problems in short-

range planning cannot be traced due to the absence of a clear sense of direction and the practices which a comprehensive long range plan provides. Basically it is more important for broad and long living enterprises. Long-range planning is closely concerned with the concept of the corporation as long living institution. The main purpose of this plan is to serve primarily as a source of strategy, motivation and direction.

The objectives of long range planning given by George R. Terry (1968) are to provide a clear picture of whether the enterprise is handed, to keep enterprise strong to focus on long-term opportunities, evaluate management personnel, to expedite new financing and to bring attention to new techniques. To be successful a long-range plan must be able to achieve the following objectives.

- ) Incorporate the engineering department's development and support expense for new products, features and cost reduction plans.
- ) Review of the plan capacity, personnel requirements in light of start up products, and existing plan capitalization.
- ) Identify future capital requirements for development departments, the manufacturing process, and support departments such as management information system and the building structure.
- ) Reflect changes in cash requirements for salaries, material, capital, etc.
- ) Consider what impact will be in inflation, fringe benefits, product cost and in overseas operations, the projected impact of exchange rates will have on the long range profitability of plan.

### **Short-term Sales Planning**

The short-term sales planning is synonymous with classical budgetary period of one year. The short-range planning is made after a freeze is taken on the consideration of possible alternative course of action. Such courses are outlines for medium range plan, which does not concern implementation. This aim is weeding out a plethora of possibilities which are for the most part long on promises and short on feasible, tangible results. According to Harold and Cyrill

(2004), the short-range planning is selected to confirm to fiscal quarters or years. Short-range planning is limited time dimension usually it covers one year time period. The management uses it as a substantial part of long-range and medium range plan (Welsch, 2005).

### **1.1.2 Sales Budget**

A sales budget is a forecast of what the company can expect to sell during a budget period. It is forecast of total sales expresses and incorporated in quantities and money. A sales budget is the starting point in which other budgets are also based. All other budgets such as production budget, purchase budget, labour budget, overhead budgets etc. are affected by sales budget. Therefore, sales budget can be referred as a nerve center or backbone of the enterprise (Lasser, 2006).

While preparing a sales budget, the following factors should be considered:

- ) Past sales figures
- ) Assessment and reports by salesman.
- ) Seasonal fluctuation.
- ) Proposed management policies.
- ) Availability of materials.
- ) Analysis of the potential market (market research).
- ) Extent of competition.
- ) General trade prospectus.
- ) Sales force size

### **1.1.3 Introduction of Nepal Oil Corporation Ltd. (NOC)**

Nepal Oil Corporation Ltd (NOC) was established by the Government of Nepal as a public enterprise in 1970 (2027-09-27) under the Company Act 2021 (B.S). The purpose was to supply and distribute the petroleum oils and lubricant (POL) products in the country. It is the large public enterprise having monopoly in the import and distribution of petroleum products. It supplies

essential products to general people, industries, aviation field, transportation and development projects of the nation. Indian Oil Corporation refines the crude products bought by Nepal Oil Corporation from the international market and then it is brought in Nepal.

This state owned enterprise has the macro task of importing, storing and distributing petroleum products to solve the energy problem of the nation. It plays a pivotal role to supply energy in the country.

As energy is inevitable for development and prosperity, NOC is trying its best to cater this requirement as per the need of the emerging scenario. Though it's hardworking to mobilize its institutional resources to tackle the energy problem, it has been facing various problems on this path. However, NOC remains committed to the supply of energy being socially responsible to the people.

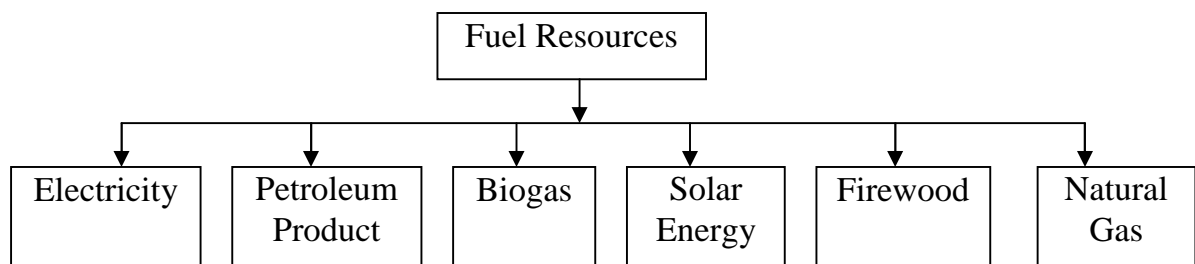
Though the government remains to be sole investor, other four public enterprises: National Insurance Corporation, Nepal Bank Ltd, National Commercial Bank and National Trading Limited have also invested in NOC. Authorized capital at the time of establishment was Rs. 10 million and paid capital was Rs. 1.05 million.

Organizational structure of NOC is formed on the basis of functional and territorial requirements. The central office is in Babarmahal, Kathmandu. It consists of one managing director's office and three deputy managing directors' offices. Ten departments and one planning office are also there. Five regional distribution centers are stationed in five regions. Biratnagar (Eastern), Amlekhgunj (Central), Bhairahawa (Western), Nepalgunj (Mid-western) and Dhangadhi (Far-western). There are sub-branches in Dipayal, Surkhet, Dang, pokhora, Janakpur and charali. Air fuel dipo have been established in

Kathmandu, Bhariahawa, Biratnagar, Nepalgunj, Surkhet and Pokhara for national and international aircrafts (NOC; Parbhat, 2068).

Increasing road and air transportation and decreasing firewood fuels have led to the shortage of the energy. Further the speedy urbanization is also contributing to the high demand of fuels. NOC is facing problems to meet the gap between demand and supply which is further affected by the dwindling state of price of petroleum products in the international market (NOC; Parbhat: 2068).

Nepal is facing huge fuel crisis. Though potentialities, as there is tackle the increasing fuel demand, lack of technology and manpower harness available resources water (water, solar, natural gas etc.) is the hindrance. In the context of Nepal, condition of fuel resources is as follows:



*Source: Prabhat, Nepal Oil Corporation, 2068*

#### **1.1.4 Operation of NOC**

The three main operation of NOC consists of import, storage and distribution.

##### **Import**

In the initial period, NOC imported POL products by buying crude oil from third countries such as Kuwait, Soviet Russia, Bharain and so on handing them over to Indian Oil Corporation (IOC) for refinement. IOC used to supply the refined products to NOC for distribution in Nepal. From 1984/85, NOC started buying the refined products itself.

A whole required petroleum product of our country is depending on the other countries. Nepal Oil Corporation is the one of the largest non-manufacturing public enterprises. NOC buys crude products from the international market and hands over IOC for refinement and brings them under the products exchange agreement. NOC imports the whole petroleum products buying from Indian Oil Corporation to fulfill the national requirements.

### **Storage**

Nepal Oil Corporation has storage facilities for petrol, diesel, and kerosene and Jet A1 fuel only. These products are stored in NOC storage tanks as per their capacity in various places in the country. The storage policy of NOC is to fulfill the requirements as long as it is possible. The products which can not be stored because of lack of storages and delays in transportation are directly sold to the dealer. The reserved stock is used for distribution. NOC has the reserve stock available for 30 days to fulfill the requirement of nation.

In this way, NOC has been built storages having different capacity in the different places of country. In the near coming future, NOC is going to expand its storage capacity in different places i.e. Bhairahawa, Nepalgunj, Dang and Birtamod.

### **Sales**

A sale is another most important operation of NOC. Different types of Oil products like petrol, diesel and kerosene are sold through dealers. After the voucher for the payment of the order is produced, the products are delivered to the dealers at their place of business through tanks Lorries. In case of aviation fuel, the selling is done directly by NOC through its aviation depots.

POL products such as kerosene, diesel and petrol are marketed through dealers appointed by the company. These dealers suppliers those products to retailers

of their respective areas covering all of the fourteen zones. But the aviation fuel is distributed directly from NOC.

## **1.2 Statement of the Problem**

Being a developing country, Nepal has not been able to harness the petroleum resources available within the nation. Lack of technology, capital, human resources and other factors are responsible for this. Therefore, Nepal is fully dependent in foreign countries to meet the demand of this vital product. Landlockedness has hampered its effectively in performance. Being a sole supplier of petroleum products, it has monopoly in the market but the service is being poor day by day.

Public enterprises of Nepal are in crisis and so the Government of Nepal is trying to move towards privatization process in a phase wise manner. NOC is also in crisis, for which various factors are responsible: weak management, poor coordination, poor motivation to human resources and lack of proper sales planning management. It needs to evolve effective sales. Planning and control for its affectivity and efficiency.

NOC targets to meet the demand of petroleum products, for which proper sales planning is very important factor. As the population, vehicles and industries are multiplying in the nation, the demand of petroleum products is also increasing. At this verge, NOC has so many problems:

- )] What is the general trend of sales planning of Nepal oil corporation (NOC)?

## **1.3 Objective of the Study**

The specific objective of the study is to examine and assess the present planning system especially the sales planning system used by NOC. The major objectives of this study are highlighted as follows:

- )] To examine the sales planning practices of NOC.
- )] To assess procurement policy adopted by NOC.



- ) To analyze the problem and prospect of sales planning of NOC.
- ) To recommend proper suggestions for the betterment of NOC.

#### **1.4 Research Questions**

- ) To what extent the profit planning was followed in NOC?
- ) What steps should be followed to improve profit planning and control system in NOC?
- ) What are the overall managerial problems and what suggestion can be recommended for their proper solution?

#### **1.5 Significance of the Study**

Let alone Nepal Oil Corporation, many public enterprises of Nepal lack of proper sales planning. It is very important for both manufacturing and non-manufacturing enterprises to achieve their goals. It assists to manage the required quantity of goods, sales budget, marketing spots, inventory management etc. Most of the business organizations are set up for profit and this goal is realizable only through proper sales planning. Thus, sales planning needs to be formulated and implemented by every business organizations.

Sales planning are an important instrument for healthy financial performance of enterprises. It minimizes future risks, maximizes the outputs from scarce resources and predicts the future. It also assists the managerial decision making in business enterprises. This study will be beneficial for the following parties:

- ) Further researcher will get help from this research to do their research in future.
- ) Nepal Oil Corporation will get help to improve its sales plan.
- ) University students who will be conducting studies in same subject will be benefited form this research.
- ) Major parties, who are interested in sales planning of NOC, will find it as a valuable resource.

- J Valuable suggestions and recommendations will serve the concerned parties while making sales plan.

Thus, this research will be a valuable means to know about the sales plan of NOC and its controlling system. People who are interested in these aspects of NOC will be beneficial from this research. Further the deteriorating condition of NOC could be prevented to reinvigorate NOC through making proper sales plan and controlling mechanism recommended by the research.

### **1.6 Limitations of the Study**

In any investigation work, limitation may occur because investigator can't investigate the entire study area. Therefore, factors which are limiting of the study are as follows:

- J This study covers only five years' annual reports (from 2063/64 to 2067/68), trends and data.
- J This study is concerned with the problems and sales trend of Nepal Oil Corporation.
- J As the study is based on the data provided by management of NOC, the conclusion is subject to the accuracy and reliability of those data.
- J Lack of time and resources constraints is also the limitations of the study.

### **1.7 Organization of the Study**

This research paper contains only five chapters. They are as follows:

**Chapter I** contains the introducing part of the study where the general background of the study, the main issues of sales planning and budgeting with respect to NOC are presented.

**Chapter II** is directed towards the review of literature of related studies. It contains conceptual review of major studies related with this research.

**Chapter III** describes the research methodology employed in the study. It includes research design, nature and sources of data, selection of enterprises, method of analysis, statistical tools used, limitations of the study, etc.

**Chapter IV** deals with the presentation and analysis of different data. Collected data are presented with necessary analysis using proper tools and major findings of the study.

**Chapter V** states summary, conclusion and recommendations of the study.

Beside this chapter bibliography have been included in this research thesis.

## **CHAPTER - II**

### **REVIEW OF LITERATURE**

Review of literature is a process of learning and understanding the concept of the related literature thoroughly. Literature review helps to understand the develop and progress made by the earlier scholars on the concerned topics or field of study. It also helps the researcher in generating new idea and gets thought generating views about the research work undertaken by him/her. The objective of review of literature is to provide knowledge about the background of the work done by the earlier researcher. It also helps to find out the lack in the earlier research work and to avoid the delicacy of the previous work.

This chapter has been divided in two sections: section (a) deals with conceptual review and section (b) deals with research review.

#### **2.1 Conceptual Review**

##### **2.1.1 About Sales Plan and Budget**

The sales budget stated in quantities and dollars, holds the key to each of the other budgets and must be prepared first (Moore and Stettler, 2003). The sales planning process is necessary part of profit planning and control because: (a) it provides the basic management decisions about marketing and (b) based on those decisions, it is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, most of the other parts of the overall profit plan also are not realistic. Therefore, if the management believes that a realistic sales plan cannot be developed; there is little justification for profit planning and control. Despite the views of a particular management, such a conclusion may be an implicit admission of incompetence. Simply, if it is really impossible to assess the future revenue potential of a business, there would be little incentive for investment in the business initially or for continuation of it except for purely speculative ventures that most managers and investors prefer to avoid (Welsch, 2004).

Sales budget are the another essential management tools. They allot the potential market (after serious market study) to territories or systems of selling. They set up quotas to salesman so as to assure that all selling forces contribute their proper share of activity. Throughout this, adequate control of performance of all members of the organization is retained. Practically all other budget is based on the sales budget. In some cases, the sales budget is also a tool to find the sales help and the promotion or advertising needed (Lasser, 2004).

A plan of operations must necessarily be built around the activity or volume of business that can reasonably be expected during the specific period covered by the profit plans. Unless there is a realistic sales plan, practically all other elements of a project plan will be out of kilter with reality. 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, the production level and other important operational aspects depend on the volume of sales.

In this way, sales budget is the major factor or primary factor of all other budgeting system and organizational activities. Sales budget is the very important for each and every organization, they may be manufacturing and non-manufacturing without proper sales budget organization cannot make the other budget, like purchase, expenses etc.

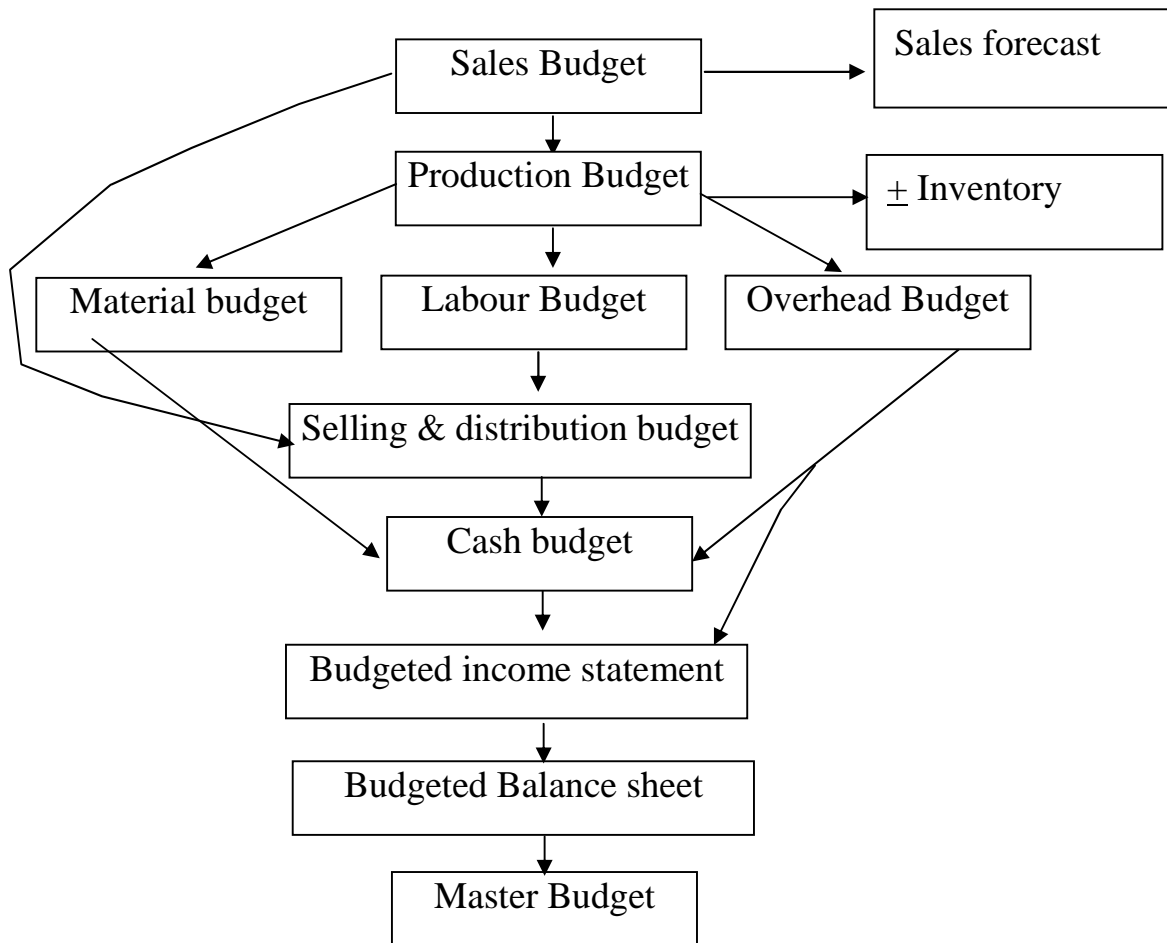
A reasonable degree of accuracy is frequently hard to achieve in sales budget but it is imperative owing to the dependency of other budgets on sales budget. In case of degree of accuracy is not large, some of the other predetermined figures, particularly the production estimates will be based on erroneous premises which may have serious consequences for the business. The necessary for accuracy has hastened the abandonment of the method. No method will ensure absolute accuracy but reasonable current forecasts are more likely to

result form through market research and analysis and application of this knowledge of the individual circumstances of a particular business. The preparation of a sales budget is always difficult even in cases where much experience has been gained by carrying out work over a number of years. Through such factors as experience, wise judgment, knowledge of market trends and business conditions are of almost help, they have to be used with great care and sometimes, even these are useless due to the development and operation of circumstances as well as events which were impossible of prediction at the time, sales estimate were made.

Welsch, Hilton and Gorden explain the primary purposes of sales plan are as follows:

- ) To reduce uncertainty about future revenues.
- ) To incorporate management, judgment and decision into the planning process.
- ) To provide necessary information for developing other elements of comprehensive profit plans.
- ) To facilitate management control of sales activities.

According to these statements, sales budget is milestone for all other budget. This can be shown more clearly by figure:



*Source: Lynch and Williamson, 2005*

Sales budget is a functional budget and is a prime budget. Therefore, it is very important. Above figure also clarifies the importance of sales budget.

### **2.1.2 Sales Planning Vs. Sales Forecasting**

Though sales planning and sales forecasting are usually used synonymously, they have distinctly different purpose. A forecast is not a plan, rather it is a statement or a quantified assessment of further conditions about a particular subject based on one or more explicit assumptions. A forecast should always state the assumptions upon which it is based. A forecast should be viewed as only one input for the development of rules plan. The management of the company accepts, modify or reject the forecast.

In contrast, a sales plan incorporates the management decisions that are based on the forecast, other inputs and management judgment about such related items as sales volume, price, sales, efforts, production and financing.

It is important to make a distinction between the sales forecast and the sales plan primarily because the internal technical staff should not be expected or permitted to make the fundamental management decision and judgments implicit in every sales plan (Goet, 2062).

The short term sales forecast provides the basis for the current years sales plan and the finished goods inventory plan. At the same time, the influence of the long term sales forecast is reflected in the capital expenditure plan and in the finished goods inventory plan. Since inventory at the end of this year is the beginning inventory for the next year's business, it is necessarily influenced by the longer term sales thinking as well as by the current years short term forecast. The long term sales forecast provides the basis for developing, in rough outline, the capital expenditure plan. That portion of the plan falling within the current year is reflected in the capital expenditure budget. Major differences between sales forecast and sales budget can be attributed as:

- J The sales forecast is merely the initial estimate of future sales, whereas sales plan is the projection approved by the budget committee that describes expected sales in units and rupees.
- J Sales forecast is a merely well educated estimate of future expected demand of a specific product whereas sales budget is the quantitative expression of business plan and policies to be pursued in future.
- J A sales plan provides standard for comparison with the result achieved, thus, it is an important control device of management, whereas forecasting represents merely a probable events over which no control can be exercised. Sales plan begins where and when sales forecast end. Sales forecast is the input to sales plan, sales plan is the foundation of profit and control (Goet, 2002).



### **2.1.3 Steps for Developing Comprehensive Sales Planning**

Welsch, Hilton and Gordon suggested these steps for developing a comprehensive sales plan:

#### **Step 1**

Develop management guidelines for sales planning including the sales planning process and planning responsibilities. Following activities are performed under this step:

- ) Defining objectives and goals like expansion or intensification of the organization.
- ) Preparation of long term or strategic sales plan.
- ) Development of general pricing policy, marketing strategies, competitive position etc.

#### **Step 2**

Sales forecast is the prediction of possible demand in specific area for specific period of time under specific condition. It is a technical projection of the probable sales. One or more sales forecast should be prepared and each of them should use different assumptions which should be clearly explained in the forecast.

#### **Step 3**

Assemble other relevant data that will be relevant in developing a comprehensive plan. Under this step, analysis of factors influencing the sales needs to be done. Evaluation of the following data might be done here:

- ) Capacity of the plan
- ) Availability of raw materials in market and its type.
- ) Availability of capital and labor.
- ) Types of market i.e. competitive or seasonal or regular.
- ) Alternative source of supply i.e. product for another source.

#### **Step 4**

Develop the strategic and tactical sales plans. The process of developing a realistic sales plan should be unique to each company because of the company's characteristics - its products, its distribution channels, and the competence of its marketing group. Four different participative approaches are widely used and characterized as follows:

- ) Sales force composite (maximum participation)
- ) Sales division managers' composite (participation limited to managers only)
- ) Executive decision (participation limited to top management)
- ) Statistical approaches (technical specialist plus limited participation)

#### **Step 5**

Secure managerial commitment to attain the goals specified in the comprehensive sales plan.

- ) Top level management must be fully committed to attaining the sales goal specified in the sales plan.
- ) Good communication must be required between sales managers of the goals, approved marketing plan and strategies by sales responsibilities (Welsch, 2004:186).

#### **2.1.4 Consideration of Alternatives in Developing a Realistic Sales Plan**

Developing a realistic sales plan involves consideration of numerous policies and related alternatives and a final choice by executive management among many possible courses of action. Important decisions must be made about such issues as a product, discontinuance of present products, pricing, expansion or contraction of sales areas, size of sales force, new distribution channels, distribution cost limitations, and advertising and other promotional policies. A realistic sales plan includes a complex set of interrelated management decisions.

In addition to advertising expense, selling expense, and marketing plans, a completed sales plan encompasses work programs and organization for sales effort and a host of other coordinative understandings necessary for efficient and aggressive efforts to maximize sales revenue at minimum cost. Many combinations of emphasis are possible. This suggests the importance in sales planning of applying standard approaches to the fullest extent possible and use of computers for data processing and analyses. It also implies numerous subjective judgments and decisions by management. The standard analyses, techniques, and approaches provide more relevant information than otherwise upon which these managerial judgments and decisions are made under conditions of uncertainty. To the extent that the standard approaches shed additional light on the probable outcomes of different alternatives, they contribute to the quality of management's decisions by reducing uncertainty.

For illustrative purposes, we will consider two pervasive sales planning problems: (a) price-cost-volume alternatives and (b) product-line alternatives.

### **A. Price-Cost-Volume Considerations in Sales Planning**

Price-cost-volume strategy is a vital part of sales planning. In a competitor market, price and sales volume are mutually interdependent. Because sales volume and price are so closely tied together, a complicated problem is posed for the management of almost every company. Thus, two related basic relationships, involving the sales plan must be considered: (1) estimation of the demand curve, that is, the extent to which sales volume varies at different offering prices; and (2) the unit cost curve, which varies with the level of productive output. This price-cost-volume relationship has a significant impact on the managerial strategy that should be adopted.

There is an obvious, but frequently overlooked, contrasting relationship that should be analyzed in depth in the development of pricing strategy. An increase in sales price with no resultant change in volume is reflected dollar or dollar in

pretax -profits. Alternatively, an increase in sales volume with no increase in sales price is reflected in pretax profit only by the difference between sales dollars per unit and variable cost per unit of product. To illustrate—Simple Trading Company sells one product. The tentative 19X2 budgeted income statement shows the following (dollars in thousands):

Sales: 5,000 units at \$2 (000) per unit  
Costs: Fixed \$4,000 (000), which will remain constant during the year.

The members of the executive committee have tentatively concluded that this budget does not meet the company's profit objective. At their last meeting, they briefly discussed two competing alternatives: A—increase price by 10 percent or B-increase volume (units) by 10 percent. Which alternative should be recommended? An analysis is shown in Exhibit 5-3 with a third alternative added.

### **B. Product-Line Considerations in Sales Planning**

Determination of the number and variety of products that a company will plan to sell is crucial in the development of a sales plan. Both the strategic and tactical sales plans must include tentative decisions about new product lines' to be introduced, old product lines to be dropped, innovations, and product mix.

Product mix refers to the volume relationship among two or more products. For example, assume that 1,000 units of product R and 2,000 units of product S were sold and that the sales plan for the coming year calls for 1,200 units of product R and 1,800 of S. The total product units is 3,000 in each case; therefore, a change in sales mix is planned for next year. The products with the highest contribution margin per unit should be pushed to the extent that is realistic.

Assuming the long-range sales plan includes changes in product lines, with broad specification as to the timing of such changes, those changes anticipated

for the coming year (the period for which the short-range sales plan is being developed) must be brought into sharp focus through management decisions and be included in the short-range plan. To develop the annual sales plan, top management must make decisions about product-line development and marketing activities. Policies must respond to such issues as the following: Which products will be pushed? When will the new product be available for shipment? Which products will be dropped and when? What quality and style changes will be made? What about "loss leaders"? These policy decisions about both the long-term and short-term sales plans will usually have a major effect on plans in other areas of the company, such as plan capacity, financing, territorial expansion, and research.

A primary objective in sales planning should be to maximize profits in the long run rather than the short run. For example, certain short-run decisions may increase immediate profits but adversely affect profits in the long run. Thus, we see that if care is not exercised, short-run decisions may be in conflict with long-term objectives (Lasser, 2004:178).

### **2.1.5 Level of Sales Planning**

#### **Strategic Sales Planning**

Strategic sales plan is the long-range sales plan of an enterprise. Usually, it is of 5 to 10 years. It is broad and general. It is usually developed by year and annual amount. It is prepared by considering future market potentials, population changes, state of economy, industry projections, company objection and long-term strategies because they affect in such areas as pricing, development of new product line, innovation of product, expansion of distribution channel, cost pattern etc (Welsch, 2005:189-190).

#### **Tactical Sales Plan**

Tactful sales plan is a short-range sales plan. It is developed for a short-period of time usually a year, initially by quarters and my months for the first quarter.

The tactical sales plan includes a detailed plan for each major product and of grouping's of minor products. Tactful sales plans are usually developed in terms of physical units and in sales rupees for planning and controlling purpose, the short-term sales plan must be developed by sales responsibility. At the end of each month or quarter throughout the year, the sales plan is re-studied and revised by adding a period in the future and by draping the period just ended. Hence, tactful sales plans are usually reviewed and revised on quarterly basis. It is also necessary for completing other components of annual profit plan.

### **2.1.6 Purpose of Sales Plan**

The main purpose of sales plan is to express future sales revenue for a specific period. It is based upon:

- ) Present knowledge of a company.
- ) The impact on the firm of enterprise objectives.
- ) Management strategies.

The main purposes of sales planning are as follows:

- ) To reduce uncertainty about future revenue.
- ) To incorporate management fragments and decisions into the planning process e.g. in the marketing plan.
- ) To provide necessary information for developing other elements of a comprehensive profit plans.
- ) To facilitate management's control of sales activities (Pandey, 2003).

## 2.1.7 Components of Comprehensive Sales Planning

**Table 2.1**

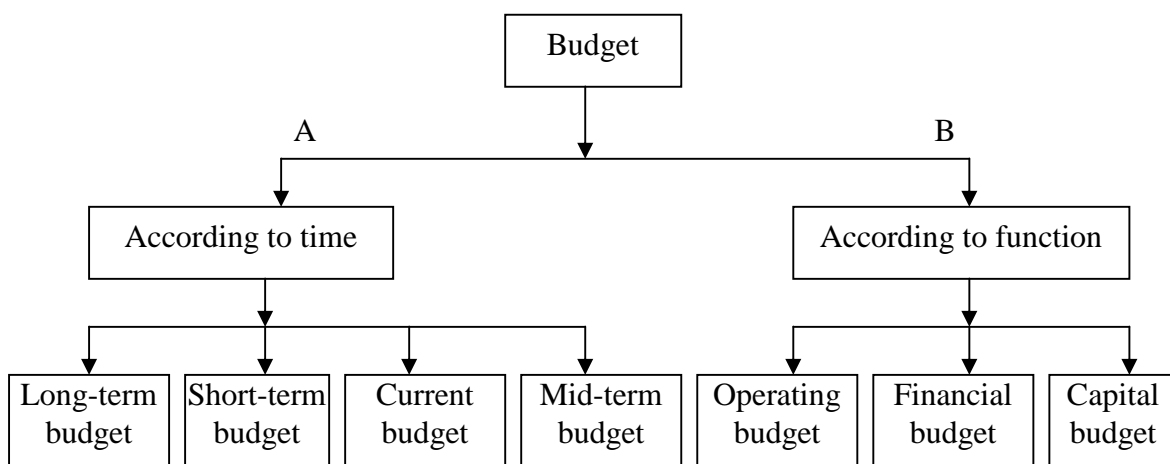
**Components of Comprehensive Sales Planning**

Component	Strategic Plan	Tactful Plan
1. Mgmt. policy and assumption	Broad and general	Details and specific for the year
2. Mkt. plan (sales and services revenue)	Annual amounts major groups	Detailed by product and responsibility
3. Advertising and promotional plan	General, by year	Detailed and specific for the year
4. Distribution (selling) expenses plan	Total fixed and total variable expenses by year	Fixed and variable expenses by month and by responsibility

*Source: Welsch, Hilton and Gordon, 2003*

## 2.2 Classification of Budget

PPC is the systematic and formalized approach to accomplish planning. Coordination and control responsibilities of an organization are a comprehensive budget that includes normally two types of budget which are shown below:



*Source: Pandey, 2003:190*

## **A. Classification According to Time**

Budgets are classified into four major parts of the of time factor. They are;

### **1. Long-term Budget**

Long-term budget is known as strategic plan. Usually it is 5 or 10 years strategic or long-term budget. It requires dept analysis of future market potentials. This may build up for a basic foundation such as population changes, state of economy, industry projection and company objectives. These budgets are related to planning the operations of an organization expressed in physical quantities.

### **2. Short-term Budget**

Short-term budget is known as tactical plan. Usually it is of 12 months detailed by months and quarterly budget. Short-term budget includes detailed plan for each major products and for grouping products. For planning and controlling purpose, short-term budget must be developed by responsibility center. Because short term profit plan provides major consideration for planning and controlling purpose physical units or jobs and expressed in monetary terms.

### **3. Current Budget**

These budgets cover a period of one month or more. The short-term budgets are modified according to current conditions or prevailing situation.

### **4. Mid-term Budgets**

These budgets are drawn usually for a mid-period of whole budgeted years. It is also called intermediate amendment of term budget. These types of budgets are required to adjust the economic fluctuation on long term and short-term budget.



## **B. Classification According to Function**

Budgets are classified into three major parts of function. They are:

### **1. Operating Budgets**

Operating Budgets are the budgets that are related to the planning of operations of the enterprises, such as sales, production, purchase, inventory etc. Operating budget is composed of two parts: a programme or activity budget that specifies the operations or function to be performed during the next year, and a responsibility budget that specifies plans in terms of individual responsibilities.

### **2. Financial Budgets**

Financial Budgets are concerned with the financial implications of the operating budget: the expected cash inflows and cash outflows, financial position and the operating results.

These budgets are connected with:

- ) Search of and use of final capital i.e. cash budget.
- ) Perform a financial statement i.e. balance sheet and income statement and statements of changes in financial position.

### **3. Capital Budgets**

These are the budgets which involve the planning to acquire the projects that requires large sum of funds and have long-term implications for the firm, together with the timing estimated cost and cash flows of each project. "Capital budgets are difficult to prepare because estimates of the cash flow over a long period have to be made which involve a great degree of Uncertainty".

#### **2.2.1 Method of Preparing Sales Budget**

Different kinds of methods are available to prepare the sales budget. Different enterprises adopt the different methods according to their financial position and quality of their manpower. Mainly the following four methods are used to prepare sales budget.

## **I. Analysis of Past Sales**

Analysis of past sales for a number of years, say 5 to 10 years, viz. long-term trend, seasonal trend, cyclical trend, various other factors. The long-term trend represents the movement of the fortunes of a business over many years. The seasonal trend may affect many types of business and hence this factor must be taken into account when studying figures for consecutive months over a number of years. The cyclical trend represents the fluctuations in the business activity due to the effect of the trade cycle. In order to study the cyclical trend it is desirable to disregard the effects of the long-term and seasonal trends. Sundry factors include, such as a strike in the industry or a serious fire or flood. From such analysis it will be possible to suggest future trends. In analyzing such sales, considerable help can be obtained from statistical reports produced by the trade units and commercial intelligence units, government publications etc.

## **II. Field Estimate by Own Sales Staff**

The salesman in each area should have an intimate knowledge of the factors likely to affect his sales in the next few months or years. He can probably make a guess about the unsold stock in the shops of his customer. He is then in a position to make an estimate of future sales. When such estimates are available for a number of years, the actual sales for the year can be compared with the estimated sales and a correction factor calculated to allow for each salesman's tendency to over-estimate.

## **III. Analysis of the Potential Market**

Market research people may report on the state of the market, population, the state of the market, population in area, fashion, trend, the types of product design of people, activities of competitors, and the prices the consumers are likely to pay.

## **IV. Studying the Impact of Factors Affecting Sales**

Any changes in the company policy or methods should always be considered. For example, introduction of special discounts, special salesmen, a new design

of the product, new or additional advertising campaigns, improved deliveries, after sales service should have some market effect on a sales budget. While preparing such forecast, the sales manager must consider the opinion of divisional managers and other sales staff, the budget officer and the accountant. It will be observed that the preparation of a sales budget involves many factors on cells for a high degree of knowledge of conditions, and of ability to deduce from the known facts and various estimates, the probable courses of sales over the budgeted period. If sales be the principal budgeted factor, then the sales budget is prepared first. If purchase is the key factor, the merchandise purchase budget should be built up first and the sales budget must be drawn up within the limits imposed by the purchase budget.

### **2.2.2 Principles of Budgeting**

The principles of budgeting are as follows:

- ) The budget has to be prepared in terms of cash, both receipts and payment are made in cash.
- ) Budget should be prepared on an annual basis. This enables the authorities to review their financial position.
- ) The budget should draw a clear picture of the financial transition of the year.
- ) Budget estimates should be gross and net.
- ) Budget estimates shall be made on departmental basis.
- ) The budget is subject to rule of lapse that unspent portion of the budget shall not be diverted to any other purpose (Lasser, 2006).

### **2.2.3 Characteristics of Good Budgeting**

The characteristics of good budgeting are as follows:

- ) Budgets may be formulated for the organization as a whole or for any sub-unit.
- ) A good system of accounting is also essential to make the budgeting useful.

- J A budget is a quantitative expression of a plan of action and aid to coordination and implementation.
- J A good budgeting system should involve persons at different levels while preparing the budgets. The subordinates should not feel only imposition on term (Khan and Jain, 2005).

#### **2.2.4 Essentials of an Effective Budgeting**

A successful and sound planning and budgeting system is based upon certain prerequisites. These pre-requisites represent management attitude, organization structure and management approaches necessary for the effective and efficient application of the budgeting system.

The following are the essential aspects of a successful budgeting:

##### **1. Sound Forecasting**

Business forecasts are the foundation of budgets; forecasts are discussed by the executives and when the most profitable combinations of forecasts are selected, they become budgets. The sound forecasting brings better results in the budgeting system. Hence, forecasts should be based on mere estimates or personal whims; these should be made by using most scientific and statistical methods and techniques.

##### **2. An Adequate and Planned Accounting System**

There should be proper flow of accurate and timely information in the business which is 'must' for the preparation of budgets. This can be ensured only by having an adequate and planned accounting system in the business.

##### **3. Efficient Organization with Definite Lines of Responsibility**

An efficient, adequate and best organization is imperative for budget preparation and its operation. Thus, a budgeting system should always be supported by a sound organizational structure demonstrating clearly the lines of authority and responsibility. Not only this, there should be a true delegation of

authority from top to lower levels of management. This will provide adequate opportunity to all executives to make best decisions and also to participate in the function of budget preparation. Thus, an efficient organization helps not only in the budget preparation but it also plays important role in budget coordination and operation.

#### **4. Formation of Budget Committee**

A budget committee receives the forecasts and targets in each department as well as periodic reports and finalizes the final acceptable targets in form of master budget and also approves the departmental budgets. Involvement of all executives is desired in order to make them emotionally committed.

#### **5. Clearly Defined Business Policies**

Every budget reflects the business policies formulated by the top management. Budget should always be prepared taking into account the policies set for particular department or function. But for this purpose, policies should be precise and clearly defined as well as free from any ambiguity. Every department executive must have a clear knowledge of the impact of business policies on his department, so that he may start his budget exercise in right direction and can also submit constructive suggestions.

#### **6. Availability of Statistical Information**

Since budgets are always prepared and expressed in quantitative terms, it is necessary that sufficient and accurate relevant data should be made available from accounting system alone and therefore they may be processed through statistical techniques.

#### **7. Support of Top Management**

If a budget programmed is to be made successful, the sympathy of each member of the management team towards it should start preferably from top. The enthusiasm for budget operation as well as direction for it should initiate

and come from top. It should be remembered that each member of the management team has feeling to resist change and there may be some sort of resentment against budgets particularly when budgeting is being used as pressure device. Therefore, the whole system should enjoy the support and cooperation of top management.

### **9. Good Reporting System**

An effective budgeting system also requires the presence of a proper feedback system. As work proceeds in the budget period, actual performance should not be recorded but it should also be compared with budgeted performance. The variations should be reported promptly and clearly to the appropriate level of management. The reporting system should be designed in such a way that along with variations, the causes for such variations and person responsible for them are also reported; so that management may decide suitable remedial.

### **10. Motivational Approach**

All the employees should be strongly and properly motivated toward budgeting system. Human beings, by nature, do not like any pressure and they resent or even rebel against anything imposed on them. There needs to be made each staff member feel too much involved in the budgeting system. To meet this end, motivational approach toward budgeting should be followed (Regineld, 2002).

#### **2.2.5 Limitations of Budgeting**

##### **i. Budget plan is based on Estimates**

The success or failure of budget depends, to a large extent, upon the accuracy of basic estimates of forecasts. It should always be remembered that a certain judgment is always present in such estimate forecasts. These aspects of budgeting should always be kept in view while interpreting the results of others.

## **ii. There is a danger of Rigidity**

As budget estimates are quantitative expression of all relevant data, there is tendency to attach some short or rigidity or finality to them. Budget estimates relate to business conditions which may be constantly changing, and it becomes imperative to change the budget estimates in the light of changed business conditions.

## **iii. Budgeting is not substitute for Management**

It should be remembered that budget is not a substitute for management. It is essentially tool of management. It is totally misconception to think that the introduction of budgeting is sufficient to ensure success and to guarantee future profits.

## **iv. Budget execution is Not Automatic**

Budget will not ensure its proper execution. It is very much required that each executive must feel responsibility and should make efforts to attain the budgeted goals.

## **v. Budgeting is a Costly Affair**

The installation of budgeting system is an elaborate process involving too much time and costs. Normally, it is costly that small concerns cannot afford it. Even for a large concern, it is suggested that there should be some correlation between the cost of operating and budgeting system and the benefits derived from it (Khan, 2004).

## **2.3 Product Line Consideration**

Petroleum crude of hydrocarbon is compound of hydrogen and carbon found deep under the earth surface and seabed. Petroleum products are obtained after refining petroleum crude in refinery. The following are some of the products recovered from refining the crude which we encounter them in our day to day life. NOC is selling these products by its dealers.

#### **a. Liquefied Petroleum Gas (LPG)**

It is a mixture of propane and butane in the ratio of 55.45 and mainly used as domestic cooking fuel. In Nepal "INDANE" (Indian Oil brand name) is being marketed which is compressed generally in 14.2 kg cylinder. During the course of crude refining the first product we get from the refinery are methane, ethane, Butane and propane. The first two products are used in chemical plants and the combination of the latter two is used as LPG.

#### **b. Motor Spirit (MS)**

Widely used in international automobile engines as fuel, motor spirit is commercially known as petrol. Its boiling point lies between 80<sup>0</sup> to 215<sup>0</sup>. Indian Oil from where NOC gets its MS requirement bands MS in two categories namely 87 Octane and 93 Octane.

#### **c. High Speed Diesel (HSD)**

High speed diesel is used as a fuel in auto ignition engine in automobile or railway engines.

#### **d. Superior Kerosene Oil (SKO)**

Generally known as kerosene is middle distillate white oil used mainly in illumination, burning of stoves for cooking and heating. Most of the people in rural area use it for lighting lamps. Flash point of kerosene is limited to 35<sup>0</sup>c minimum and the standard colors.

#### **e. Aviation Turbine Fuel (ATF)**

It is used as a fuel in aircraft with Turbine engines. It is highly refined kerosene prepared to meet the aircraft engine specification particularly the freezing point and the thermal stability.

#### **f. Light Diesel Oil (LDO)**

It is used as fuel oil is slow speed operating at around 500 pm. In comparison with speed diesel it has higher carbon residue and sulphur content. Color of this product is greenish black and is relatively cost effective product.



### **g. Fuel Oil (FO)**

Fuel oil also named as furnace oil is very heavy petroleum product and used as fuel in the burner of industrial furnace, marine boilers and engines.

## **2.4 A Review of Previous Related Research Works**

### **2.4.1 Concept**

Literature review is the study of past research that was conducted by previous researchers in selected area or topic of profit planning. The purpose of literature review is to find out what research studies have been conducted in the chosen field of study and what remains to be done? It provides the base for developing comprehensive theoretical framework from which hypothesis can be developed for testing. Literature review can be done by consulting library where there are all kinds of published materials, including thesis, business reports, government publications and other concerned articles.

There are very few research papers concerning this particular topic i.e. sales planning and budgeting. Most of the students of account group have done the research in the topic of profit planning and control of different public and non-public enterprises. Some dissertations reviewed here are on the topics of sales planning and budgeting.

**Sapkota (2002)** has tried to investigate the "*Sales Budgeting and Its Effectiveness*" in manufacturing public enterprises. The major objective of this study is to analyze the present sales planning system of Royal Drugs Limited (RDL). Other major objectives are:

- ) To analyze the sales budget prepared by RDL with theoretical prescription.
- ) To analyze the cause of sales fluctuation in different months and years.
- ) To study the relationship of sales plan with production plan, inventory and different overheads made by RDL.
- ) To study about variance between actual and budgeted sales.

The main findings of Sapkota are as follows:

- )] Semi-average method shows the sales of RDL is in decreasing trend.
- )] There is no significant relationship between actual and target production.
- )] The relationship between profit and sales is very weak, even in some cases the company gets loss rather than profit.

On the basis of his findings, he has recommended the following facts:

- )] RDL needs higher sales to reduce the decreasing trend of loss. The possibility offer new medicinal product, discount of price. Incentive to wholesales, increase numbers of dealer, etc.
- )] They should make production target significant by applying past achievement production.

They should consider about better utilization of available labour, material, energy and other expenses to increase productivity. After modifying suggested thing, automatically RDL gets better productivity.

**Gautam (2010)**, has tried to investigate the "*Role of Sales Budgeting in the Profitability of Public Enterprise*". The major objectives of the study is to examine the techniques of sales budgeting as a major tool for profit planning applied by Dairy Development Corporation (DDC). Other objectives are:

- )] To examine the sales budgeting process adopted by DDC.
- )] To analyze the relationship between sales and profitability of DDC.
- )] To compare the performance status of sales budgeting system of DDC.
- )] To find out the cause of deviation on sales budget of DDC.

The main findings of Gautam are as follows:

- )] DDC does not have comprehensive profit plan based on the realistic expectation.
- )] DDC does not have long-term strategic sales plan.

- ) Lack of communication between high level and low level staffs.
- ) Sales forecasting is based on the personal judgments of top-level staffs.
- ) An actual sale is lower than budgeted sales.
- ) Lack of segregation of cost into fixed and variables.
- ) Rate of increase in cost is higher than the rate of change in sales.

On the basis of his findings, he has recommended the following facts:

- ) DDC needs to set the goals like profit margin, product, sales, etc.
- ) DDC needs to develop comprehensive profit planning and controlling techniques.
- ) Long-term plans need to be developed with short-term plan as its subsidiary.
- ) Expert planners are required with separate planning department.
- ) DDC needs to emphasize on the production of subsidiary milk product rather than milk only.

**Shahi (2011)**, has tried to investigate the "*Sales Budget of Manufacturing Public Enterprises*". The major objective of the study is to highlight and apprise the current practice of sales planning and its effectiveness in manufacturing company. Other major objectives are:

- ) To analyze the sales budget prepared by HPPCL.
- ) To evaluate the variance between standard and actual result.
- ) To compare sales with profit of the HPPCL.

The main findings of Shahi are as follows:

- ) Actual sales are very below than the budgeted sales.
- ) There is lack of proper management to supply the herbs and other herbal products in international market.
- ) There is no cost classification system in the company. The costs are not segregated into fixed and variable in a systematic manner.

On the basis of his finding, he has recommended the following facts:

- J For the effective implementation of budgetary system work sheet of manuals should be communicated to all the levels of management.
- J Cost-volume profit relationship should be considered while formulating profit plan, especially in determining sales volume, selling price and profit.
- J HPPCL should have the competitive pricing policy according to the market situation gain high market share.
- J Environment of entrepreneurship and commercial concept should be developed in the overall operation on of the HPPCL.
- J HPPCL should formulate and prepare profit planning and control calendar.

**Dangol (2012)**, has conducted study on “*Profit Planning in Nepal: A Case Study of Nepal Lever Ltd.*” The main objectives of the study are:

- J To examine the practices and effectiveness of Profit Planning in NLL.
- J To analyze the various functional plans formulated and implemented in NLL.
- J To evaluate the variance between targets and actual of NLL.
- J To evaluate the profit planning process applied in NLL with conceptual perspective.
- J To point out feasible suggestion and recommendation to make better of Nepalese manufacturing enterprises with speed reference to NLL.

The major findings of the study are as follows:

- J General Manager with mutual cooperation of other top level managers and which the board of directors finally approves to prepare yearly budget for income and expenditure.
- J The company has no planning division. It has no skilled and expert planners as well.

- J The company has no practice of sales forecasting. It does not prepare sales and production plans. They are made on ad-hoc basis.
- J The company is unable to appoint sufficient number of reliable agents/dealers to improve its sales performance.
- J Annual capacity of producing goods is 34,750 metric tones. The capacity utilization of the company is more deviated from their standard and targeted capacity utilization from year to year.
- J In NLL there is detail plan of manpower and systematic approach of labor planning. The company plans for direct hours and direct labor cost needed to produce the planned quantities of goods.

**Shrestha (2013)**, has conducted a study on, “*Budgeting in Manakamana Darshan Private Limited.*” The objective of the study is to appraise the profitability of MDPL and to suggest recommendations based upon it. The specific objectives are:

- J To analyze the budget of MDPL.
- J To analyze the problems faced by MDPL in terms of budget formulation.
- J To analyze the cost and profit trend of the MDPL in the light of budget.
- J To evaluate the deviation between overall targets and actual achievements.
- J To provide suggestions for improving the budgeting problems.

The major findings of the study are:

- J MDPL has not the practice of preparing comprehensive sales plan. But it prepares only target sales in totality.
- J The regression analysis and straight trend line suggests that the actual sales are in increasing trend.
- J The actual sales and actual purchase is positively correlated. It means purchases are made on the basis of sales.

- J MDPL is not in loss from the last few years except FY 2059/060. Analysis of profit pattern shows increasing trend of profit. This shows efficiency in Budgeting and Cost Control.
- J The regression equation shows that there is negative relationship between planned sales and actual sales.

## **2.5 Research Gap**

A brief review of above mentioned dissertations, it is seen that most of the public enterprise are not operating effectively and they have also not applied the full concept of bates planning parties which is related on the major findings of their studies.

This study so would be of different values as its focuses on special areas of over of overall profit planning i.e. sales planning and Budgeting with special references to NOC a non-mfg enterprises.

It would be a significant step on knowing about the sales planning and budgeting in NOC and its problem and prospects of sales planning and budgeting. The study attempts to analyze the sales planning budgeting practices of NOC. This study is very new in the field of researches related to profit planning and control.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The research methodology helps to tackle the problem of research in a systematic manner. This research has a major objective to analyze, assess and study the sales planning and budgeting of NOC. To meet these basic objectives, research methodology has been used as a guide to reach the destination. Major aspects of research methodology that are followed in cause of this dissertation are as follows:

#### **3.2 Research Design**

Generally, research design means definite procedures and technique to study the ways that contribute to the research work. This is essential to fulfill the objective of the study.

Major objectives of the study are to examine the sales planning system in NOC. For the very objective, the design of this study is in descriptive and Analytical method.

#### **3.3 Data Collection Procedure**

Data here had been collected secondary sources. Secondary data have been taken mainly form the published and unpublished articles, annual reports of NOC, sales budgets and plan of NOC, profiles of corporation, annual magazines and reports, etc.

#### **3.4 Population and Sample**

In Nepal, Nepal Oil Corporation (NOC) is only are government agent that has on authority to buy gasoline products from the international market and then supply such to both the public and private distributions. So to know the sales

and budgeting practice in Oil Industry of Nepal, the NOC has been taken as sample of the study. In fact, Noc also represents the population in this study as well.

### 3.5 Data Processing Procedures and Tools Used

Data collected from secondary sources are analyzed and presented in the required tables and formats. Such tables and formats are interpreted and explained wherever necessary. To analyze the collected data, statistical tools such as variance analysis, correlation, Regression have been used as per need.

### 3.6 Statistical Tools

To find out the nature of validity of budgeted sales and actual sales of different years from 2063/64 to 2067/68, we have to calculate mean, standard deviation and coefficient of variance of budgeted and actual sales of NOC products. To find out the correlation between the budgeted and actual sales, Karl Pearson coefficient of correlation 'r' is determined for the purpose of calculation of 'r'. Budgeted sales (x) are assumed to be independent variables and actual sales (y) are assumed to be dependent variables. Thus for tools are taken.

$$\text{Standard Deviation } (\exists x) = \sqrt{\frac{u^2}{N}}$$

$$\text{Coefficient of Variance C.V.x} = \frac{\dagger_x}{x} | 100\%$$

$$\text{Calculation of Correlation Coefficient (r)} = \frac{uv}{\sqrt{u^2} \sqrt{v^2}}$$

### 3.7 Research Variables

Mainly the research variables of this study are related with sales statement of NOC. Budgeted and actual sales in unit's sales trend, pricing trend are the research variables of this study.

### 3.8 Period Covered

The present study is undertaken for a period of 5 years i.e. FY (from 2063/64 to 2067/68).



## **CHAPTER - IV**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 General Introduction**

After collecting the data from various sources, it should be presented, analyzed and evaluated by using the different tools and techniques to find out the various aspects of the company. Data presentation and analysis is the main part of any research work. In other words, it is the heart of any research work. The data and necessary information are collected through primary and secondary sources. To analyze and examine the actual position of the company, statistical tools are used. Statistical methods like correlation between the different variables, trend of the budgeted sales and actual sales, standard deviation, coefficient and variation are used to find out the various aspects of the company.

For the application of profit plan, a company should prepare numbers of plans; one of them is a sales plan. Sales plan is the infrastructure of profit plan. Other plan of profit plan depends upon the sales plan. The prime objective of business is to earn net profit, so the first consideration of the sales plan must be made from the profit plan. A sale is the major source of revenue and cost.

The main objectives of this study to examine and analyze sales planning practice of Nepal Oil Corporation (NOC); similarly also tries to assess the impact of sales planning and budgeting of NOC. Other objective is to examine the problems and prospects of sales planning of NOC.

Generally two types of sales budget and plan are prepared. The first is long-range sales plan and the second is short-range sales plan. NOC doesn't prepare the long-range profit plan and sales plan. Short-range sales budgeting and planning are not also clearly prepared. This study mainly focuses short-range plan. However sales, imports and other related figure in units and amount if previous are also presented and analyzed to know over all economic and sales trend for the purpose. This study covers the periods of five years from 2063/64 to 2067/68.

## 4.2 Sales Plan of NOC

Sales revenue planning is the foundation for planning in business organization. It is also the primary step in developing the overall budget procedure and it is the primary source of cash and all other functional budgets prepared on the basis of sales budget. If sales budget is not realistic, all other budgets also will not be realistic.

In Nepalese public enterprises, the objectives are mainly social welfare and commercial, for fulfilling the social obligation. Basically, Profit is less important, at the same time there is also commercial obligation, and in this case the corporation should earn certain profit too.

In case of non-manufacturing public enterprises, there is not realistic sales plan. NOC fixes the sales for the coming fiscal year only. Every plan or profit plan should be prepared to fulfill the objective of the enterprises. There is not clear objective related to sales plan. It depends upon the demand of consumers. Consumers are divided into domestic, commercial, non-commercial and industrial etc. Now it is worthwhile to present the corporation's previous sales performance and their budget. To know about sales trend of past and to forecast the possible future trend of the corporation, the following table and diagrams present the budgeted sales and actual sales achievement from the fiscal year 2063/64 to 2067/68.

**Table 4.1**

**Budgeted Sales and Actual Sales of NOC (In KL) from F/Y 2063/64 to 2067/68**  
(Total sales includes sale of Ms, Hsd, Sko, Atf, Fo, Ldo)

<b>Fiscal Year</b> \ <b>Details</b>	<b>Budgeted sales (x)</b> <b>(K.L.)</b>	<b>Actual sales (y)</b> <b>(K.L.)</b>	<b>Achievement</b>
2063/64	768215	768525	102.4
2064/65	727763	727763	102.27
2065/66	848000	848022	102.17
2066/67	1056114	1057273	105.5
2067/68	1154000	1154506	100.04
Total	4554092	4556089	516.06
Average	830003.8	911217.8	103.64

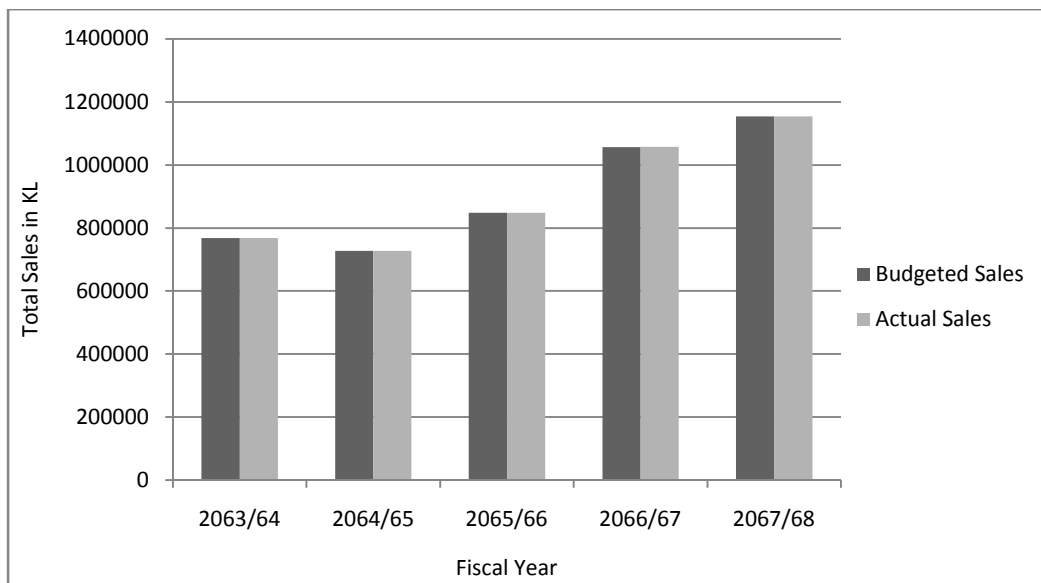
(Source: Corporate Profile of NOC, 2067/68)

From the above table, we can see that its actual sales are higher than budgeted sales in FY 2063/64, 2065/66, 2066/67 and 2067/68 and actual sales is equal with budgeted sale of 2064/65.

There is not any systematic rule of preparing sales plan of NOC. The planning section of NOC prepares the next year's plan of the basic of last years actual sales increasing by 15% to 20% per year. Budgeted sales are not only on the assumption of management. On the other hand, NOC does not prepare sales plan in amount every year. There is an actual sale in rupees.

The budgeted and actual sales and achievement of NOC can also be presented from the following line figure.

**Figure 4.1**  
**Budgeted and Actual Sales in Total (in KL)**



The above column chart presentation indicates the small gap between actual and budgeted sales. In FY 2064/65 the actual sales is similar as budgeted sales. In FY 2063/64, 2065/66, 2066/67 and 2067/68, Actual sales is higher than Budgeted sales.

### 4.3 Statistical Tools Used

To find out the nature of validity of budgeted sales and actual sales of different years from 2063/64 to 2067/68, we have to calculate mean, standard deviation and coefficient of variance of budgeted and actual sales of NOC products. To find out the

correlation between the budgeted and actual sales, Karl Pearson coefficient of correlation 'r' is determined for the purpose of calculation of 'r'. Budgeted sales (x) are assumed to be independent variables and actual sales (y) are assumed to be dependent variables. The correlation between x and y variables should be positive. To know the significance of the calculated value of 'r' it's calculated below:

**Table 4.2**  
**Calculation of Standard Deviation, Coefficient of Variance and Correlation**  
**Coefficient Of Budgeted and Actual Sales In KL in Total**

Fiscal Year	Budgeted (x) (KL) (000)	Actual (y) (KL) (000)	u = (x- $\bar{x}$ ) (000)	v = (y- $\bar{y}$ ) (000)	u <sup>2</sup> (000)	v <sup>2</sup> (000)	vu (000)
2063/64	768.215	768.525	-142.603	-142.693	20335.73	20361.24	20348.48
2064/65	727.763	727.763	-183.055	-183.455	33509.28	33655.66	33582.39
2065/66	848.000	848.022	-62.8184	-63.1958	3946.151	3993.709	3969.859
2066/67	1056.114	1057.273	145.2956	146.0552	21110.81	21332.12	21221.18
2067/68	1154.000	1154.506	243.1816	243.2882	59137.29	59189.15	59163.21
Total	x = 4554.092	y = 4556.089	u = 0	v = 0	u <sup>2</sup> = 138039.26	v <sup>2</sup> = 138531.88	uv = 138285.12
Mean	910.818	911.218					

**For Budgeted Sales (x)**

Where, u = (x-  $\bar{x}$ )

v = (y-  $\bar{y}$ )

i. We have, mean ( $\bar{x}$ ) =  $\frac{\sum x}{N} = \frac{4554.092}{5} = 910.818$  (KL)

ii. Standard deviation ( $\sigma_x$ ) =  $\sqrt{\frac{\sum u^2}{N}} = \sqrt{\frac{138039.26}{5}} = 166.1561$   
= 1661561 (KL)

iii. Coefficient of variance C.V.x =  $\frac{\sigma_x}{\bar{x}} \times 100\%$   
=  $\frac{166.1561}{910.818} \times 100$   
= 18.24251%

### For Actual Sales (y)

$$\text{i. Mean } (\bar{y}) = \frac{\sum y}{N} = \frac{4556.089}{5} = 911.218$$
$$= 911.218 \text{ KL}$$

$$\text{ii. Standard deviation } (\sigma_y) = \sqrt{\frac{\sum v^2}{N}} = \sqrt{\frac{138531.88}{5}}$$
$$= 166.4523$$
$$= 166.4523 \text{ (KL)}$$

$$\text{iii. Coefficient of variance (C.V.y)} = \frac{\sigma_y}{\bar{y}} = \frac{166.4523}{911.218}$$
$$= 18.2670\%$$

The above analysis shows that budgeted sales (x) have more variable than actual sales. The calculated mean of actual sales is higher than budgeted sales. C.V. of budgeted sales is higher than actual sales. Higher C.V. indicated more variable of data than lower C.V. Therefore, it is conceded that variability of budgeted sales in NOC is high. Standard deviation of actual sales is higher than budgeted sales. Therefore an actual sale is the less variable than planned sales.

### Calculation of Correlation Coefficient (r)

Karl Pearson's correlation coefficient between x and y given by:

$$r_{xy} = \frac{uv}{\sqrt{u^2} \sqrt{v^2}} = \frac{138285.12}{\sqrt{138039.26} \sqrt{138531.88}} = 0.9999$$

$$\therefore r_{xy} = 0.9999$$

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

$$= 0.6745 \times \frac{(1 - Z0.9999^2)}{\sqrt{5}}$$

$$= 0.6033$$

The significant of 'r' can be tested by the help of probable error of 'r'. The detail calculation of 'r' and probable error is presented in above table. We have calculated value of 'r' as 0.9999.

The calculated value of 'r' shows there is positive correlation between budgeted sales and actual sales. Since the value of 'r' is 0.9999. There is perfect correlation between budgeted sales and actual sales.

The significant of 'r' is tested by the help of probable error of 'r'.

We have probable error of 'r' = 0.6033. Since 'r' is greater than (P.E.) probable error of (0.9999 > 0.6033). The value of 'r' is definitely significant so, it can be said that actual sales will go on the same directions that of budged sales.

Similarly a regression line can also be fitted to show the degree of relationship between budgeted sales and actual sales. Budgeted sales and actual sales forecast the possible actual sales with given budgeted figures. For this purpose, actual achievement has been assumed to be dependent upon budgeted. So, the regression line of achievement 'y' on budget 'x' is as follows:

**Table 4.3**  
**Summary of AM, SD and R**

Statistical Tools	Budgeted Sales (x)	Actual Sales (y)
Mean	910.818	911.218
Standard deviation	166.1561	166.4523
Coefficient of correlation = 0.9999		

$$y - \bar{y} = r \frac{\sigma_y}{\sigma_x} (X - \bar{X})$$

$$y - 911.218 = 0.9999 \frac{166.4523}{166.1561} (X - 910.818)$$

$$y = 1.000(X - 910.818) + 911.218$$

$$y = 1.000X + 0.40$$

The regression line shows positive relation between budgeted sales and actual sales. It is clear that the actual sales is in increasing trend and actual sales will increase by

1.000 units in budgeted sales units. By help of this regression equation, we can ascertain the expected sales achievement with given value of budgeted sales. Suppose (x) ascertain in expected sales achievement of figure 2067/68 = 10000KL

So, X = 10000 units

Than expected sales achievement

$$y = 1.000 \times 10000 + 0.40$$

$$= 10000.40$$

$$\dots y = 10000.40 \text{ KL}$$

If the relationship between budgeted sales and actual sales remain same as previous year than the achievement sales for the year 2067/068 will be 10000.40KL.

To find out actual future sales for given time period, least square equation used. A least square equation will show the relationship between given time and actual sales. This method assumes that a sale is constantly changed with change in time and such change can be expressed as component of time series.

To fit straight line trend, the time factor is considered as independent factor (x) and sales (y) as dependent factor, dependent upon time.

$$yc = a + bx$$

Where,

yc = Slope of total sales

a = Constant

b = Slope of trend line

x = Independent variable

**Table 4.4**  
**Fitting Straight Line Trend by Simple Regression**

<b>Fiscal Year</b>	<b>Actual sales (y) in (KL)</b>	<b>x = year</b>	<b>x<sup>2</sup></b>	<b>xy</b>
2063/64	768.525	-2	4	-1537.05
2064/65	727.763	-1	1	-727.763
2065/66	848.022	0	0	0
2066/67	1057.275	1	1	1057.275
2067/68	1154.506	2	4	2309.012
	y = 4556.091	x = 0	x <sup>2</sup> = 10	xy=1101.474

FY 2063/64 assumed base year, therefore, the value of x in 2065/66 is zero and negative for the year before 2065/66 and positive for the year after 2066/67.

To fit straight line trend, the time factor is considered as dependent factor and sales is considered as dependent factor upon time. Then the straight-line trend of actual sales y upon time expressed by:

$$y = a + bx$$

$$\text{Then, } a = \frac{\sum y}{N} \dots\dots\dots (1)$$

$$b = \frac{\sum xy}{\sum x^2} \dots\dots\dots (2)$$

Substituting the value in above equations.

$$a = \frac{4556.091}{5}$$

$$a = 911.2182$$

$$b = \frac{1101.474}{10}$$

$$=110.1474$$

$$\text{Now, } y = a + bx$$

$$= 911.2182 + 110.1474x$$

For fiscal year 2067/68, the value of x will be 2 due to assumed base year 2065/66.

we have,



$$y = 911.2182 + 110.1474 \times 2$$

$$\text{or } y = 1131.513$$

This trend shows the positive figures of sales for future. The sales will be increase by 110.1474 KL. If the sales trend of past years will be continue for future. If the trend does not change, the possible sales will be 1131.513s KL.

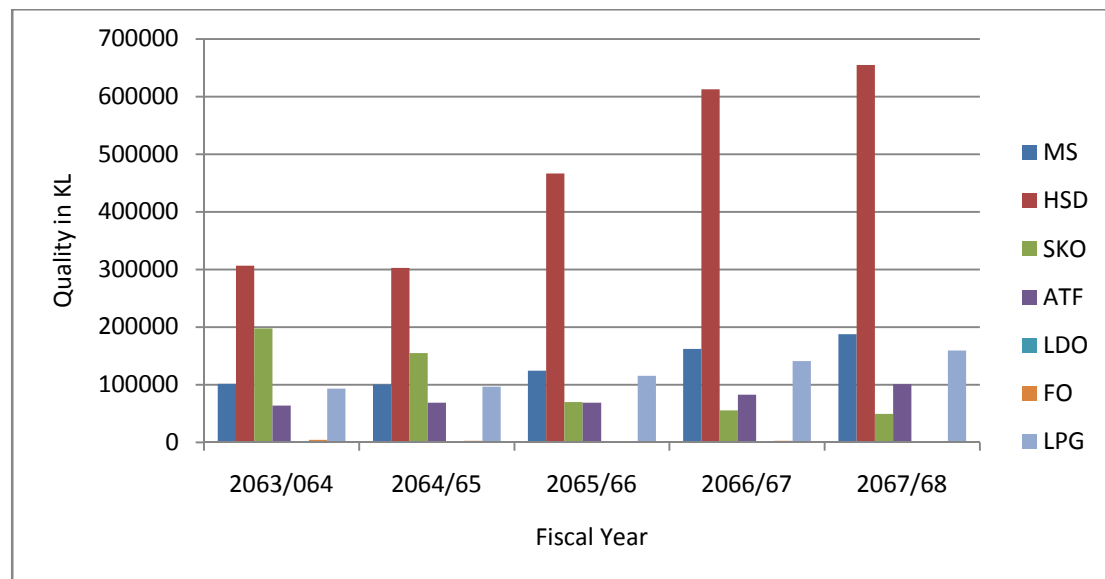
**Table 4.5**  
**Budgeted Sales and Actual Sales of NOC**  
**by Product and Time**

	Fiscal Year	MS (in KL)	HSD (in KL)	SKO (in KL)	ATF (in KL)	LDO (in KL)	FO (in KL)	LPG (in MT.)	Total
Budgeted sales	2063/064	98435	299419	199576	67650	180	5457	97563	768280
	2064/65	81632	271520	220345	62785	230	5237	86014	727763
	2065/66	120000	456000	76000	78000	210	3790	114000	848000
	2066/67	156733	607153	58652	82305	225	5875	141171	1056114
	2067/68	187535	654572	49555	101307	215	1430	159386	1154000
Actual sales	2063/064	101912	306687.2	197849.5	63777.8	179	4558	93562	768525.5
	2064/65	100825	302706	155215	68938	306	2918.8	96837	727763
	2065/66	124169	466468	70089	68935	377	2171	115813	848022
	2066/67	162276	612505	55782	82631	317	2589	141171	1057275
	2067/68	187641	655128	49495	101314	227	1415	159286	1154506

Source: Nepal Oil Corporation, Prabhat, 2067/68

**Figure 4.2**

**Actual Sales of Petroleum Products F/Y 2063/64 to 2067/68 (in KL)**



The above figure and table show that the actual sales units of different types of petroleum products from the fiscal year 2063/2064. This graphical and tabular presentation indicates the higher sales unit of high speed diesel (HSD) than other products.

The sales quantity of petrol (MS) is increasing in every year, and sales quantity of light diesel oil (LDO) is lower.

#### 4.4 Purchase Budget

After preparing sales plan the next step is to prepare purchase budget in non-manufacturing enterprises. In the case of non-manufacturing enterprises the sales plan must be converted to purchase requirement. The purchase budget is an estimate of the quantity of goods to be demanded during the planned period. The purchased is based as the capacity of storage and the requirement of sales plan. The main objective of the purchase plan is to fulfill the sales plan requirements.

The following table shows the purchase target and actual of NOC from FY 2063/64 to 2067/68.

**Table 4.6**  
**In Total Purchase Target and Actual of NOC (In KL)**

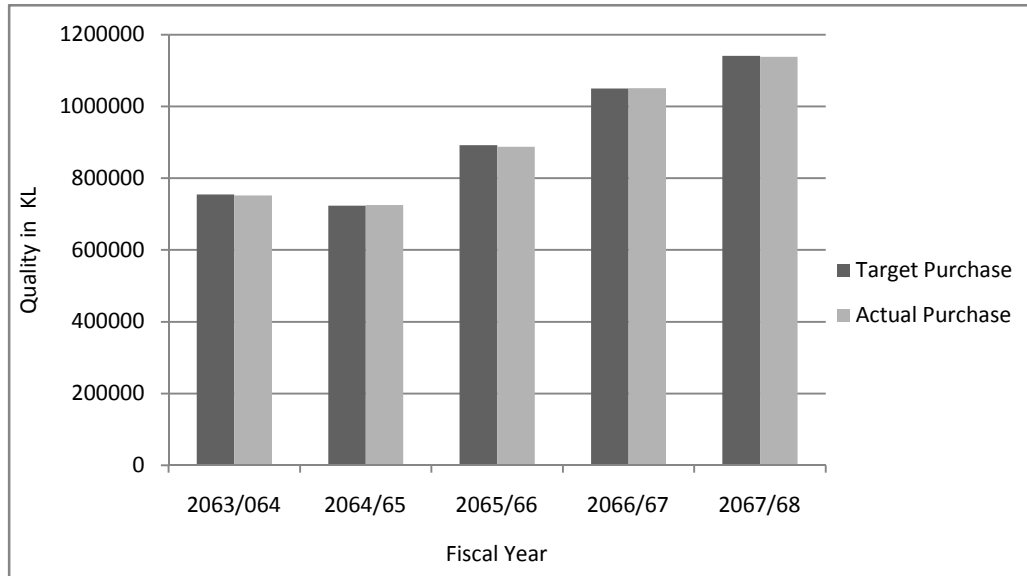
<b>Fiscal Year</b>	<b>Target Purchase</b>	<b>Actual Purchase</b>	<b>% Achievement of Purchase</b>
2063/064	754882	752446	99.60
2064/65	723704	725623	100.20
2065/66	892562	888056	99.40
2066/67	1050318	1050632	100.02
2067/68	1141497	1138183	99.97
Total	4562963	5305296	116.20
Average	912592.60	1061059.20	116.20

*(Source: Corporate Profile of NOC, 2067/68)*

The purchase plan depends upon sales plan. The above table shows the target and achievement purchase of NOC in different years. According to table, the 100 % achievement of target purchase has been fluctuating in different years at same cases

99.40 percent to 100.20 percent. It means there is no so effective planning system for purchase. The figure of table can be shown more effectively in Column chart.

**Figure 4.3**  
**Purchase Target and Achievement of NOC**



Above figure shows the very nearest point for target and actual purchase in FY 2064/65 to 2066/67 is higher then targeted purchase. For more effective presentation, bar diagram can be used as below:

In order to calculate the variability of purchase the arithmetic mean, standard deviation and coefficient of variation from available data from FY 2063/64 to 2067/68 for 5 years data can be calculated as below:

**Table 4.7**  
**Calculation of Mean, Standard Deviation, Coefficient of Variation, Coefficient of Correlation and Probable Error of Target Purchase and Actual Purchase (In KL) (in 000)**

Fiscal Year	Target purchase (x) (KL)	Actual purchase (y) (KL)	$u = x - \bar{x}$	$v = y - \bar{y}$	$u^2$	$v^2$	$uv$
2063/64	754.882	752.446	-156.51	-158.54	24495.57	25135.57	24813.504
2064/65	723.704	725.623	-187.69	-185.37	35227.01	34360.18	34790.897
2065/66	892.562	888.056	-18.83	-22.93	354.5915	525.88	431.82332
2066/67	1050.318	1050.632	138.93	139.64	19300.27	19500.45	19400.099
2067/68	1141.497	1138.183	228.90	227.20	52397.22	51617.57	52005.94
	$\bar{x} =$ 4556.963	$\bar{y} =$ 4554.94	$u = 0$	$v = 0$	$u^2 =$ 132318.27	$v^2 =$ 131139.64	$uv =$ 131714.89

For target purchase (x)

Where,  $u = x - \bar{x}$

$$v = y - \bar{y}$$

i. We have, mean ( $\bar{X}$ ) =  $\frac{\sum x}{N} = \frac{4562.963}{5} = 912.593$  (in KL)

ii. Standard deviation ( $\sigma_x$ ) =  $\sqrt{\frac{\sum u^2}{N}} = \sqrt{\frac{132318.27}{5}} = 162.6765$  (in KL)

iii. Coefficient of variance C.V.x =  $\frac{\sigma_x}{\bar{X}} \times 100 = \frac{162.6765}{912.593} \times 100 = 17.825\%$

For actual purchase (y)

We have mean  $\bar{y} = \frac{\sum y}{N} = \frac{4554.94}{5} = 910.988$

ii. Standard deviation ( $\sigma_y$ ) =  $\sqrt{\frac{\sum v^2}{N}} = \sqrt{\frac{131139.64}{5}} = 161.950$  (in KL)

iii. Coefficient of variance (C.V.y) =  $\frac{\sigma_y}{\bar{Y}} \times 100 = \frac{161.950}{910.988} \times 100 = 17.777\%$

Karl's Pearson's correlation coefficient between target purchase and actual purchase (x and y) is given by:

$$r_{xy} = \frac{\sum uv}{\sqrt{\sum u^2} \sqrt{\sum v^2}} = \frac{131714.89}{\sqrt{132318.27} \sqrt{131139.64}} = \frac{131714.89}{131727.64}$$

...  $r_{xy} = 0.9999$

Probable error of (P. E)  $r = 0.6745 \times \frac{1}{\sqrt{N}}$

$$= 0.6745 \times \frac{1 \times (0.9999)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{1 \times 0.999}{2.236}$$

$$= 0.0001$$

**Table 4.8**

**Summary of Mean, Standard Deviation, Coefficient of Variance Correlation and Probable Error of Budgeted Purchase and Actual Purchase**

<b>S.N.</b>	<b>Statistical tools</b>	<b>Budgeted Purchase (x) in KL '000'</b>	<b>Actual Purchase (y) in KL</b>
1	Mean	912.593	910.988
2	S.D.	162.6765	161.950
3	C.V.	17.825%	17.777%
	r	0.9999	
	P.E. (r)	0.0001	

The above analysis shows that budgeted purchase is more variable than actual purchase. The calculated mean of actual purchase is lower than budgeted purchase. C.V. of Budgets purchase is higher than actual purchase. Higher C.V. > indicates more variable of data than lower C.V. Therefore, it is concluded that variability of budgeted purchase in NOC is high. S.D. of budgeted purchase is higher than actual purchase.

The significant of 'r' can be tested by the help of probable error of 'r'. The detail calculation of 'r' and probable error is presented in above table. We have calculated value of 'r' as 0.9998.

The calculated value of 'r' shows there is positive correlation between budgeted purchase and actual purchase.

There is perfect correlation between budgeted purchase and actual purchase. Similarly a regression line can also be fitted to show the degree of relationship between budgeted purchase and actual purchase.

To calculate the regression line of purchase, budgeted (x) is assumed as independent and achievement (y) as dependent variable and get regression line 'y' on 'x' as under:

**Table 4.9**  
**Summary of AM, SD and R**

S.N.	Statistical Tools	Budgeted Purchase (x) in KL '000'	Actual Purchase (y) in KL
1	Mean	912.593	910.988
2	S.D.	162.6765	161.950
	r	0.9999	

Now,

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

$$y - 910.988 = 0.9999 \frac{161.9504}{162.6765} (X - 912.593)$$

$$\dots y = 3.870 + 0.994X$$

The regression line shows that positive relationship between budgeted purchase and actual purchase.

It is clear that the actual purchase is in increasing trend and actual purchase will increase by 0.994 units in budgeted purchase unit. By help of this regression equation, we can ascertain the expected purchase achievement with given value of budgeted purchase. Suppose X ascertain in expected purchase achievement at figure 2067/68 = 20000 units.

Then expected purchase achievement

$$y = 3.870 + 0.994 \times 20000$$

$$\dots 19883.870 \text{ (KL)}$$

The relationship between budget purchase and actual purchase remain as previous year than the achievement sales of the year 2067/68 will be 19883.870 (KL)

Another statistical tool called least square method is used to analysis the trend of budgeted purchase and actual purchase and to estimate the possible future purchase for a given time frame. To calculate least square trend, budgeted 'x' is assumed as independent and actual purchase 'y' as dependent variable.

From the above trend equation, we can estimate the actual purchase for FY 2067/68.

Where,  $y = a + bx$

**Table 4.10**  
**Fitting Straight Line Trend by Least Square Method of**  
**Purchase Achievement of NOC**

Fiscal Year	Actual Purchase 'y' in KL '000'	X	X <sup>2</sup>	XY
2063/64	752.446	-2	4	-1504.89
2064/65	725.623	-1	1	-725.62
2065/66	888.056	0	0	0.00
2066/67	1050.632	1	1	1050.63
2067/68	1138.183	2	4	2276.37
N = 5	y = 4554.94	x = 0	x <sup>2</sup> = 10	xy = 1096.49

(2063/64 is assumed as base year)

$$Y = a + bx$$

$$\text{Then, } a = \frac{y}{N} \dots\dots\dots (1)$$

$$b = \frac{xy}{x^2} \dots\dots\dots (2)$$

$$a = \frac{y}{N} \times \frac{4554.94}{5} = 910.988$$

$$b = \frac{xy}{X^2} \times \frac{1096.49}{10} = 109.649$$

Hence, the equation of straight line trend is  $y = 910.988 + 109.649 X$ .

The straight line trend shows the positive purchase figure. The purchase increase by 109.649 KL per year if past purchase trend will continue in future. Using this trend line, purchase for 2063/64 estimate (x) is 5 assuming base year is 2067/68.

$$y = 910.988 + 109.649 \times 5$$

$$= 1459.233 \text{ KL}$$

... According to this trend, the purchase of 2067/68 will be 1459.233 KL.

**Table 4.11**

**Target Purchase and Actual Purchase of NOC Time and Product**

	Fiscal year	MS (in KL)	HSD (in KL)	SKO (in KL)	ATF (in KL)	LDO (in KL)	FO (in KL)	LPG (in Mt.)	Total
Budgeted purchase	2063/064	97833	299318	192391	60657	440	4920	99323	754882
	2064/65	98162	310212	151168	66534	208	2204	95216	723704
	2065/66	120000	480000	69000	81000	218	1344	134000	892562
	2066/67	162733	603153	58652	82305	312	2559	140604	1050318
	2067/68	175535	659775	45351	99850	326	1537	159123	1141497
Actual purchase	2063/064	98435	299419	192576	60650	480	4624	93562	752446
	2064/65	101624	303212	152168	68534	308	2940	96837	725623
	2065/66	128372	489219	77799	74286	380	2188	115813	888056
	2066/67	162902	608065	52714	82824	320	2612	141171	1050632
	2067/68	181082	652764	43399	99990	228	1434	159286	1138183

(Source: Corporate Profile of NOC, 2067/68)

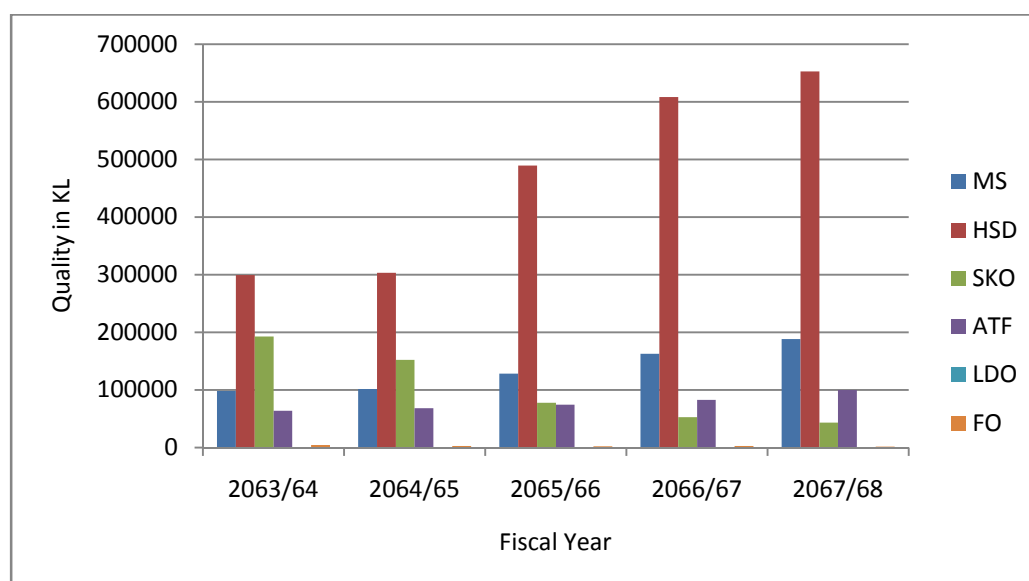
**Table 4.12**

**Import of Petroleum Products FY 2063/64 to 2067/68 (in KL)**

Fiscal Year	MS	HSD	SKO	ATF	LDO	FO	Total
2063/64	98435	299419	192576	63650	180	4624	658884
2064/65	101624	303212	152168	68534	308	2940	628786
2065/66	128372	489219	77799	74286	380	2188	772244
2066/67	162926	608065	52714	82824	320	2612	909461
2067/68	188082	652764	43399	99990	228	1434	985897

**Figure 4.4**

**Import of Petroleum Products FY 2063/64 to 2067/68 (in KL)**





This above graphical and tabular presentation indicate the import of different kinds of petroleum products from the FY 2063/64 to 2067/68.

This table and figure show the different quantity of the petroleum products of different years by the products.

The import quantity of High speed diesel (HSD) is higher than other product in every year. The import quantity of light diesel oil (LDO) is less than other products from the fiscal year 2063/64.

#### **4.5 Liquefied Petroleum Gas (LPG)**

It is a mixture of propane and butane in the ratio of 55:45 and mainly used as domestic cooking fuel. It is also used as fuel for small size of vehicle like micro bus and tempo. Nowadays, the demand of LPG also is in increasing trend. The actual import and sales of LPG have been presented in the following table.

**Table 4.13**  
**Import and Sales Quantity of Liquefied Petroleum Gas (LPG)**  
**FY 2063/64 to 2067/68 in Mt.**

<b>Fiscal Year</b>	<b>Import quantity in Mt.</b>	<b>Sales qty in Mt.</b>	<b>In/Dec%</b>
2063/64	93562	93562	15.50
2064/65	96837	96837	3.50
2065/66	115813	115813	19.60
2066/67	141171	141171	21.90
2067/68	159286	159286	12.83

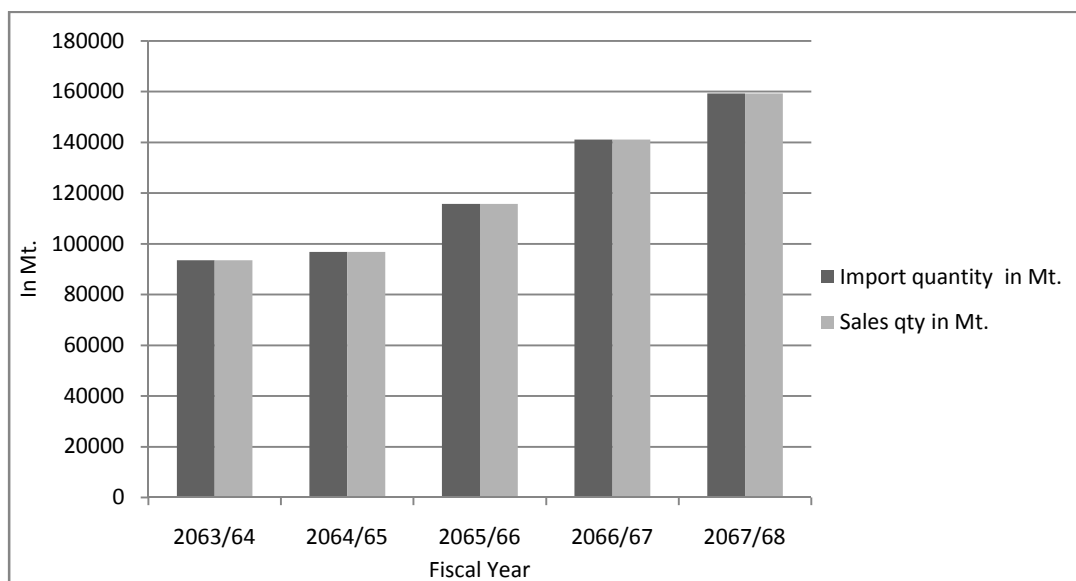
*(Source: NOC Prabhat, 2068)*

The above table shows that the import and sales quantity of LPG is in increasing trend due to the increasing demand of people.

We can present the import and sales quantity of LPG more effectively by the following figure.

**Figure 4.5**

**Import and Sales Quantity of Liquefied Petroleum Gas (LPG)**



The above figure shows that sales quantity of LPG is increasing every year.

**4.6 Sales and Distribution System of NOC**

NOC's regular product included petrol, diesel, kerosene, aviation fuel FO and LDO. To meet the demand for petroleum products all over the country, NCO has a fairly wide distribution network only through private dealers. The numbers of private dealers in the country at present is over 1800. NOC's five regional offices, six branches and number of sales depotes make the distribution of petroleum products to these dealers.

The consumer in general gets the organization from these outlets. So the corporation has given equal importance to the infrastructure requirements of these outlets. Compliance to follow the dealers regulation is mandatory for all of them. Keeping in view of government intention of deregulation of this sector, NOC has adopted a vision to provide its services and product with some added value and direct catering to its esteemed consumers by setting up company owned and company operated and company owned and dealers operated pumps.

In meeting the nation-wide demand for petroleum products, NCO has basic challenge to extend its distribution network further to cover the hilly and mountainous areas of

the country, which are only scantily lowered at present. Future marketing efforts of NOC will be directed towards expansion of its market even in the remote parts of the country.

The POL product of NOC are consistently gaining popularity as shown by the consistent increase in its demand some of the POL products are so popular that they have acquired essential goods. The POL products are related to our basic needs. So the POL products are gaining popularity.

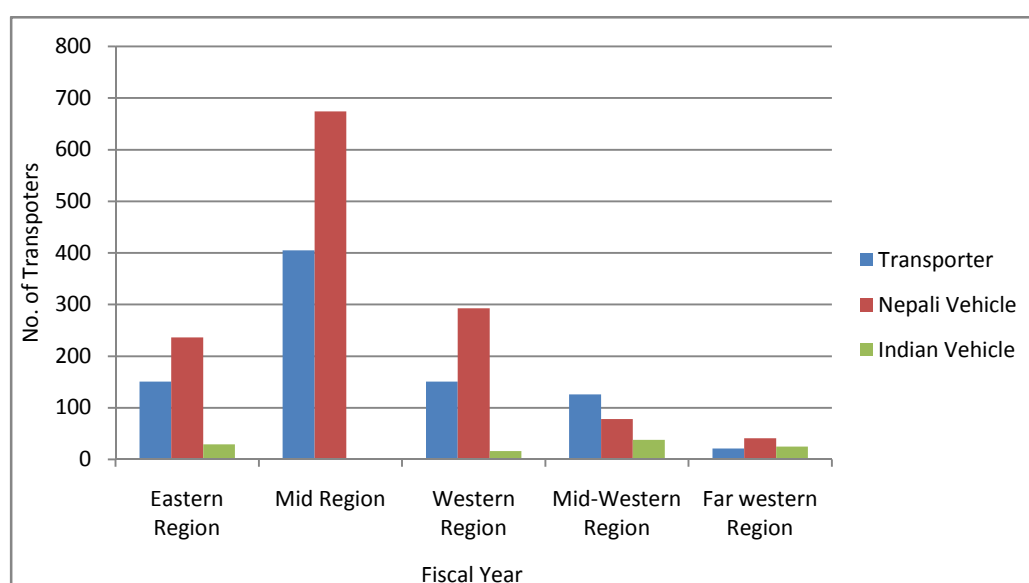
POL products such as kerosene, diesel and petrol are marketed through dealers appointed by the company. These dealers supplies to retainers and their respective areas covering all the fourteen zones. The numbers of dealers located in the different places of the country are as follows:

**Table 4.14**  
**Region-wise Petroleum Transporters (2067/68) (in No.)**

	<b>Eastern Region</b>	<b>Mid Region</b>	<b>Western Region</b>	<b>Mid-Western Region</b>	<b>Far western Region</b>	<b>Total</b>
Transporter	151	405	151	126	21	854
Nepali Vehicle	236	674	293	78	41	1322
Indian Vehicle	29	0	16	38	25	108
<b>Total</b>	<b>416</b>	<b>1079</b>	<b>460</b>	<b>242</b>	<b>87</b>	<b>2284</b>

(Source: NOC Prabhat, 2068)

**Figure 4.6**  
**Region-wise Petroleum Transporters**



From the above data, it is clear that the highest sales quantity is in mid-region of Nepal. It covers 1079 of total sales. The lowest sales of petroleum products are in Far-western region of Nepal. It covers only 87 of total sales.

POL products such as kerosene, diesel and petrol are marketed through dealers appointed by the company. These dealers supplies to retailers of their respective areas covering all the fourteen zones. But the aviation fuel distribution direct from NOC. The distribution system is usually followed by NOC for marketing.

- ) NOC → Dealer → Consumer
- ) NOC → Consumers

#### **4.7 Major Finding**

Analyzing and studying the practice of sales planning and budget of NOC, it can be concluded as of dis-balance No-problem in payment of installment to Indian Corporation.

- ) NOC doesn't have a practice of systematic and scientific in budgeting.
- ) The corporation has no clear pricing method.
- ) NOC does not carry out any kind of sales research to know the consumer's reaction and the external forces that could affect NOC's business in the long run.
- ) Budgeted and actual sales have been prepared by NOC in quantity but not in rupees.
- ) NOC has so many dealers in every prime location of the cities and highways. Some of NOC's dealers have built very good retail outlets to further enhance the image of NOC in the market.
- ) Every price like decision turns out to be a big propaganda or issue in the country.
- ) NOC doesn't have not clear-cut goal, objectives, policies, long term plans, strategic programs etc.
- ) Regression line about sales and purchase of NOC indicates a positive trend.
- ) Lest square straight line of sales trend of NOC shows that sales will be high in future if present efforts are frequently being improved.
- ) There is no good performance evaluation method of corporation.

- J NOC has the sales forecasting on realistic ground because there is highly significant and positive correlation between budgeted and actual sales which indicate that if targets are high, achievement will also be high.
- J NOC highly prefers the past experience to prepare sales plan and give less priority for external expertise which is very important for planning of sales.
- J Top manager are less committed for budgeted although they have high participation in decision making and implementation, employees are moderately responsible for the deviation between budgeted and actual.
- J NOC prepares the sales plan and purchase plan only to fulfill the formality, NOC has not been able to implement the plan and sales plan effectively.
- J NOC don't have enough working capital to run daily activities. At last, overall sales plan is also not so clear and we can say hat the budgeting procedure followed by NOC is not so clear and reliable; the performance of NOC is very weak.

### **Strengths of NOC**

- J NOC has got enough distribution points to cover the every economic regions of Nepalese market.
- J NOC has got sufficient experience in the import of major petroleum products from the international market.
- J NOC can do it's best for alternative arrangements to meet the demand of major petroleum products. NOC has got enough storage facilities located at different parts of the country for POL product.
- J NOC is a state owned enterprise established with social objective of serving the nation by making available the different grades of petroleum products in reasonable prices.
- J NOC is increasing distribution point day to day for facing shortage problem.
- J NOC has got long term supply agreement with the biggest oil company of India, i.e. Indian Oil Corporation (IOC) Ltd. It has got nearly 56% market share in India.
- J The supply points of IOC are quite closer to the Nepalese border areas from where the POL products are transported to NOC's depots. This ensures the smooth supply of petroleum products in the market.

**Weakness/Threats:**

- ) NOC does not carry out any promotional activities to satisfy its consumers by offering other value added services.
- ) NOC has not been able to maintain a transparency of all its cost patterns and other marketing activities in front of Nepalese consumers and media.
- ) NOC doesn't carry out any kind of market researcher to know the consumer's reaction and the external forces that could affect NOC's business in the long run.
- ) Every price hike decision turns out to be a big political propaganda or issue in the country.
- ) It is controlled by a government ministry which has got other major areas of concern like industries and commerce. Mostly the policy matters and necessary pricing decisions are ending in the ministry. NOC is not depend on its policy and can not decide the retail prices of the petroleum products on its own.
- ) NOC has dis-balance Problem in payment of installment to IOC

## **CHAPTER - V**

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

#### **5.1 Summary**

Nepal Oil Corporation Ltd. is one of the largest public sector organizations in the republic of Nepal. It has been supplying continually such a vital commodity as POL products to the general, public enterprises, aviation field and the development projects of the national and international levels. It has been making significant contribution to the economic development of the country.

Today the concept of privatization is also arising in this sector smoothly. NOC has been trying to improve itself as a capable institution in copying with the new policy guidelines of the elected government by adopting itself within the framework of objectives of Government of Nepal aimed at liberalization of economy and transition to a market oriented economy based on competition and efficiency.

Nepal, being one of the land locked counties of the south-Asia, has to depend on India for the supply and distribution of various petroleum products as the eastern, southern and western part of the country is attached with India. Although there are some sources of petroleum goods in our county, they have not been exploited due to the lack of technology, poor economic conditions, lack of skilled man power etc. Therefore, all POL products have to be imported from others counties. Imports as well as distribution of POL products in Nepal were initiated first by the Burma and then by the standard vacuum oil company and the Indian Oil Corporation (IOC) in late 1940s. Realizing the need to institutionalize the supply as well as distribution of POL products in the country, it has served customers regularly.

NOC headquartered Kathmandu, has cover the years expanded and now has 5 regional offices, Branch offices, fuel Depots, Aviation fuel deposits, with total existing storage capacity of 10309 kiloliter (L) and employing 440 permanent work force. The highest policy making and controlling body of NOC is its Baroda of Directors. The Board is represented by all the share holders currently the chief executive officer (CEO) of NOC is the executive chairman who has the overall

responsibility of ready to day operations besides the chairmanship of NOC board. The operations of NOC are coordinated and executed by three divisions, each headed by deputy managing director.

Profit plan is the life blood of the organization. Any business organization could not run for a long period of time without profit. Profit plan helps manufacturing or non-manufacturing, public enterprises to improve over all aspects of their operation.

Profit planning and control means the development of objective, goals and motivation to achieve the objectives and goals, effectively and efficiently. It is one of the most important management tools for planning and controlling business operations.

The profit plan is one of the broad plans of business organization. It is divided in two groups as functional plan and financial plan. Functional plan includes sales plan/production plan/purchase plan, labors plan, personnel plan, and expenses. The financial plan includes cash flow plan, capital expenditure plan, projected income statement and project balance sheet.

The sales plan and budget is the most important part of profit planning and control for every business organization. It provides the basic management decisions about marketing. It is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, most of others parts of profit plan are not also realistic. Therefore, sales plan is the most essential part of every business organization. Two types of sales plan are prepared. They are strategic sales plan and tactical sales plan. There is vast relationship between sales plan and profit plan, profit plan cannot be considered without sales plan, without effective implementation of sales plan with its significant performance, the profit plan can't get success.

The present study has been undertaken to examine sales planning practice by NOC. The study has tried to assess the impact of sales planning and budgeting of petroleum products applied by NOC. Similarly it has tried to analyze problems and prospects of sales planning of NOC. The scope of study is limited for this micro level analysis. The five years 2063/2064 to 2067/2068 trends of data have been examined.



Both primary and secondary data are used in this study the data have been analyzed with help of various statistical techniques like mean, standard deviation, graph, correlation, regression, covariance, time series analysis. The condition of import and sales of POL products, purchase policy and sales system applied by NOC, budgeted and actual sales have also been analyzed.

Related literature has been reviewed which consists of books, reports, periodical articles and dissertations.

The study has been organized in five chapters.

- ) Introduction
- ) Review of Literature
- ) Research methodology
- ) Data presentation and analysis and
- ) Summary, conclusion and recommendations.

## **5.2 Conclusions**

Responses of NOC personals help us to draw following conclusions:

- ) NOC is unable to supply the petroleum products as per demands of market due to the low price of POL in internal market in comparison to international market.
- ) To meet the incremental demand to POL, NOC should simplify the import process either by importing from other countries or by pressurizing India for earning the import process.
- ) NOC can be well managed by developing the skill of NOC personals and by implementing the public private partnership in managing NOC.
- ) NOC is a public enterprise and so it has social responsibility but region behind the improper sails planning of POL is due to the politicization of NOC and vested interest of certain groups.
- ) Due to landlessness of Nepal, import cost of POL is very high and so pipe line and railway should be made from sea coast to Nepal that is comparatively cheaper.

- J Subsidy plan should be implemented from certain authorized centers and effective distribution of POL can be materialized by ensuring proper distribution plan suited to geography and demand.
- J Reward and punishment, participating in decision making and timely training can make the personals of NOC more skilled, motivated and professional.

### **5.3 Recommendations**

Based on the summary and findings of the study of sales planning and budgeting of NOC, some important suggestions have been recommended to improve the current position of the company. It seems necessary to develop improvement process of sales planning in the NOC. It is hoped that following recommendations will prove to be useful for the management of corporation:

- J NOC should carry out market research to understand the problems, difficulties and the possible shortcomings of dealers in delivering the products and series to the different consumers ranging from a kerosene lamp user living in the village to the industries using diesels as their fuel.
- J There should be continuous follow of information among various level of management and various groups of employees. The goals and objectives and strategies of this enterprise should be carefully communicated to lower level management.
- J NOC should re-structure its pricing modalities and try to do the pricing as per the actual cost basis whenever NOC gets new pricing from IOC.
- J NOC should insist the government to allow NOC to keep certain margins for its overhead expenses development and investment activities. If there is decline in the costing due to full of IOC's monthly price derived on the basis of international pricing, it should try to pass on some benefits to the consumers, too.
- J NOC should go for the setting up of Model retail outlets in the different parts of the country in technical association with IOC and offer better services to the consumers.
- J NOC should develop a mechanism to fully control the adulteration practices, so as to ensure the interest of various categories of consumers.

- J NOC should try to regain its products image in the market through some promotional activities in the post deregulation era.
- J NOC must have clear-cut goal, objectives, policies, long term plan, strategic program etc. Sales and purchased budget must be prepared on realistic manner. NOC should be responsible and committed to accomplish them with in the specified period of time.
- J NOC can establish a different set of pricing approaches for different consumers. The commercial users are getting more benefits from the subsidized price of kerosene and LPG as they are paying the same prices as the low income people pay for kerosene and housewives pay for LPG. NOC can suggest the government for the dual pricing of LPG so as to minimize the loss in LPG.
- J Sales planning and budgeting practice should be understood by every managers of the corporation. Role of budgets and planning should be understood by every managers of the corporation. Leakage should be completely controlled. Adulteration of different types of products must be controlled. Corporation should develop the detailed systematic periodic performance reports to locate by responsible person for accomplishing planning objectives.
- J NOC should give proper attention to manpower planning. Unnecessary pressure from the government should be avoided. The manager should be selected by the corporation who is more familiar having advanced knowledge about concerned business. When problems arise, he can deal easily and handle effectively.
- J The corporation should have depth analysis of corporation's strengths and weakness. It should try to overcome the weakness by using the strengths.
- J For the better marketing plans and quick decisions in the competitive atmosphere, NOC should computerize all its activities so as to understand the exact financial position of the company at any point of time. The availability of online information regarding import, shortage and sales of the products would really help in planning certain strategic marketing move in the field. Moreover, the use of modern technologies in its various activities will help to increase the productivity and reduce the marketing cost.
- J As NOC does not have any retail selling stations as their properties, they should either try to buy or enter into separate agreement with most of the petrol pumps

located at the prime areas of the country. This would ensure to retain most of the market share with NOC even in the changed context.

- J Corporation should develop the detailed systematic periodic for performance reports assigned by responsible person for accomplishing planning objective.
- J Regarding the transportation of the POL, NOC should-issue tenders for the transportation in some areas and try to segment transporters in different categories so as to bring down the transportation cost and make the transportation business a competitive one.
- J There should be annual evaluation of the statement of the broad objectives of the corporation by the executive committee.
- J NOC should further try to reduce the costs that would have been incorporated while deriving the refinery transfer price by IOC and insist for all bonded products in real sense. This would help to reduce the costs of the petroleum products and NOC would be able to offer more competitive retail selling price in the market.
- J Finally, NOC should re-structure its pricing modalities and try to do the pricing as per the actual cost basis. Whenever NOC gets new pricing from IOC, selling price and the details of tentative breakdowns and justifications have to be provided to the public and press.

After analyzing the data and making conclusion on the basis of those data, the researcher makes the following recommendations to activate the responsibility and effectively of NOC:

- J Integrate the price of POL in accordance with the international market in a flexible manner.
- J Skill of NOC personals should be updated and they should be motivated by participating in decision making and imparting justice over them and their activities.
- J Depoliticization of NOC is must and its autonomy should be given on the skilled hands, so that NOC can balance is dual goals social responsibility and profit making.
- J Concept of public private partnership can be viable for managing the oil import and distribution. Proper strategy should be made towards this concept.

- J Pipeline and railway can be the best way to reduce the high import cost of POL and so the government should make initiation towards this end.
- J Subsidy plan should be well regulated by designating certain carters for subsidy distribution.
- J Nepal Gvt. should pay loan of IOC or create Automatic Pricing Mechanism system.

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