CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Every business enterprises can have their own objectives. The primary objectives of enterprises are to generate profit and to provide social services to public and private. These both objectives are interlinked with each other. Without economic contribution social service cannot be provided. Also, the long-term profit cannot be achieved standing against the society. So the success self-survival, growth, continuity of the organization and achievement of its goal depend upon the degree of its profit.

Simply profit denotes the excess of outflows(i.e. goods, services, social benefits or revenue factors) over the inflows (people, capital, materials or cost factors) or the excess of enterprises revenue earned over its cost spent for producing revenue within a definite accounting period is called profit. In other sense, profit means ‘Return on Investment’. In accountant’s point of view, profit is a measure of the performance towards the achievement of its goal.

Profit is the ultimate goal of every business organization. They involve in business for making profit. Profit cannot be achieved automatically. It should be managed well with better managerial skills. So the profit is a planned and controlled output of management. Profit planning and control means the planning of revenue (i.e. increase the revenue) and control the cost (i.e. control the inefficiency of cost). Therefore, planning and control are mainly focused on profit planning and control out of five functions of management (i.e. planning, organizing, staffing, leading and controlling). Management process is the process of planning, organizing, staffing, leading and controlling effectively, efficiently and economically to attain the pre-letter minded goals or objectives. It gives the base-camp for profit planning and control.

Comparative profit planning and control is a new term in the literature of business, not a new concept in management, not an end and a substitute of management. The other terms, which can be used in same context, are comprehensive budgeting managerial budgeting and simply budgeting. The profit planning and control can be defined as a process/technique/tool of management that enhances the efficiency of management. Profit planning and control involves development and application of broad and long range objectives for the enterprise, specification of goals, strategic or long term goals, tactical or short range profit plan, a systematic performance reports detailed by organized responsibilities, control system, follow up procedures.

Hence, profit planning and control guidelines to management and act as signal light for the management to correct its policy and to show its direction for achieving maximum result within a definite period. It consists three main budgets:-

- Operation budget (Budget related with revenue and expenses)
- Financial budget (Budget related with financial statements)

Out of them, sales planning or sales budgeting is related with operation budget. Generally, sales refer to the sale of goods or rendering of services on cash or credit. Sales budget is a forecast of future sales volume and sales revenue during a budgeted period. The process of preparing and using sales budget to achieve sales objectives is called sales budgeting. Sales budget deals with sales volume, sales revenue and sales expenses. It covers sales forecast, marketing plan, sales expenses or promotion expenses plan. Sales budget includes both strategic (long-range) and tactical (short-range) sales plan. Sales budget is usually prepared according to product or product group, territory, area, types of customers etc.

Sales planning or budgeting provides basic management about marketing. Marketing decisions are basic approach for developing comprehensive sales plan and profit plan. Therefore, sales budgeting is the foundation of all other budgets as well as a tool of profit plan for the every business enterprises either they are manufacturing or non-manufacturing and either public or private enterprises. If sales plan is not realistic, most other parts of overall profit are not realistic. Management should develop realistic sales plan. If management cannot develop realistic sales plan, it will be little justified. If it is difficult to assess the future revenue of business, there will be little incentives for investment.

Sales planning and forecasting are often confusing and ambiguous. Although, they are related but they have distinctly different purposes. A forecast is not a plan, rather it is a statement and a qualified assessment of future condition of the particular subject bases on one or more exploit assumptions. A forecast should always state the assumptions upon which it is bases. All sales budgets are sales forecasts but all sales forecast are not sales budgets. Sales forecast may be accepted or modified or rejected by management. In contrast, sales plan incorporates management decisions that are based on forecast, other inputs and management judgment about such related items as sales volume, price, production, financing. Therefore, a sales plan is not conditional but forecast is conditional. It is also a technical function. A budget provides standard for comparison, but forecast represents merely a possible event. Budgeting begins after forecasting ends. A sales forecast is converted to a sales plan, when management has brought to bear management judgment plan strategy commitment of resources and the managerial to aggressive action to attain sales goals. Without sales planning, not enterprise can service for the long period of time (Dangol et al., 2062: 600).

1.1.1 Public Enterprises

1.1.1.1 Meaning of Public Enterprises

Public enterprises are those which are managed, controlled and owned by government to provide goods or services to the people at fair price. In such enterprise, half or more than half of total shares are owned by government. In Nepal, public enterprises are established with the fund of HMG or with the help of financial assistance of international agencies or foreign countries.

Different scholars, agencies and government have defined the term ‘Public enterprises’ differently to suit their own respective situations. According to Hanson “Public enterprises mean ownership and operation of industrial, agricultural, financial and commercial undertakings”. In the words of World Development report, 1998, “State owned enterprises are financial autonomous and legally distinct entities wholly or partly owned by government.” Public enterprises are established not only for commercial purpose but also for public welfare. They are strong means of socio-economic development of the nation. So the public enterprises have to maintain proper balance between profit oriented and service oriented.

The exploitation of consumers and workers, the necessity of infrastructure development, dense structure, the utilization of natural resources, unemployment condition of nation compelled the government to establish public enterprises.

Public enterprises were established in developed countries in 18th century and in the developing countries after 2nd world war. In context of Nepal, Nepal Bank Limited, a commercial bank was the first public enterprises to have a separate legal entity in Nepal. During world war 2nd, some other public enterprises were established however they could not make any substantial progress. Nepal started its planned economic development from 2013 B.C. Then, the numbers of public enterprises have increase substantially in the various fields of national economy. There were 64 public enterprises in Nepal before privatization program of HMG and now there are 36 public enterprises. They are manufacturing or public enterprises. Manufacturing public enterprises are interested to earn profit providing social responsibility. Similarly, public utility enterprises are also interested to earn profit by providing social services. Public enterprises of Nepal can be categorized as:-

- Statutory Corporation
- Companies

Among them, there are three public utility enterprises namely Nepal Electricity Authority, Nepal Drinking Water Corporation and Nepal Telecom.

1.1.1.2 Role of Public Enterprises in Nepal

Nepal is one of the least developed countries of the world with poor economic condition and a land locked country, lies between India and China. It has an area of 1,47,181 square kilometers, length 885 kilometers from east to west and average breadth about 193 kilometers from north to south. More than 32% of people are living below poverty line. Per capita income of Nepal is about $3. GDP growth rate is around 3.7% and it has also fluctuating trend. More than 80% of people still depend on agriculture sector. More than 80% of people still depend on agriculture sector and not more than 10% on industrial sector for their livelihood.

Nepal is exercising mixed economic policy for its economic prosperity. It creates the co-existence of private and public sector. Despite many private enterprises, they are only oriented to generate profit and ignore social welfare, compel the government to reserve some enterprises by full or partial ownership.

The co-existence of the both private and public sector is necessary and useful for economic development, envisaged in national level policy. Mainly, the role of PEs has been in basic infrastructure, defense sector, industrial states, and public utilities, commercial sector, trading and banking sectors. PEs are important to create industrial bases in the country, to provide better goods/services to the people at reasonable price, to generate employment opportunities, to collect government revenue, to mobilize the national resources into productive uses and to fulfill the government plans and objectives. PEs has helped to boost the standard of living, to balance regional development, to utilize resource optimally, to contribute import substitution and export promotion.

So, the role of PEs in developing countries like Nepal is the most important for socio-economic development of people, enterprises and the nation. No nation in the world is without public enterprises.

1.1.2 A brief overview of Nepal Electricity Authority

Nepal is one of the richest countries in natural resources in the world. It has various natural resources. One of them is hydro-electricity potential. Nepal is the richest country after Brazil in hydro-electricity potential in the world.

Nepal has more than 6000 rivers and rivulets with total annual average run off capacity of 200 billion cubic meters and storage potential in the form of ice snow of 88 billion cubic meters. This provides capacity to generate 83,000 megawatts of hydro power, of which approximately 42,000 megawatts have been determined as economical feasible. Despite the existence of such huge hydro power resources, potential development of hydro power has not taken place satisfactorily. Nepal developed its first hydro power station ‘Pharping in 1911 A.D. Since then till 2003, Nepal has been able to develop total installed capacity of 606,057 MW only, which is less than 1% of total potential capacity. Now, Nepal Electricity Authority is operating to electricity over the kingdom of Nepal.

Nepal Electricity Authority, a full government undertaken public utility enterprise, was formed on 1st Bhadra 2042 B.S. (1985 A.D.) amalgamating the department of electricity. Nepal Electricity Corporation and number of other related departments according to Nepal Electricity Authority act 2041 B.S. The central office of Nepal Electricity Authority is in Kathmandu. On the basis of organization expansion, number of its staffs, its assets and investment, and areas of its power supply works, Nepal Electricity Authority is the largest public utility enterprise in Nepal. It has established its branch offices, distribution sector, power houses, grid houses in all over the kingdom is about 200. About 10000 staffs are presently employed here. The main purpose of Nepal Electricity Authority is to provide electricity service to customers at an affordable price. It is also responsible for making generation, transmission and distribution of electricity throughout the kingdom of Nepal. Now, Nepal Electricity Authority is providing hydro electricity service to about 22% of the total population, mainly in urban area and in some pockets of the rural area. It seems very low, but the market of Nepal Electricity Authority may be very large, the remaining parts of neap and international markets like India and China, which may prosper the economic condition of Nepal and Nepalese people.

1.1.3 Function and Duties of NEA

As per the Nepal Electricity Authority Act, the function and duties of NEA will be as follows:-

- To do necessary research work relating to production, transmission and distribution of electricity of adequate standard in the regions which are economically appropriate for the industries and agriculture development and the facility of the people.
- To recommend NG to determine the long term and short policy relating to the supply of electricity, to supply electricity by generating transmitting and distributing electricity pursuant to the prevailing law.

- To prepare the plan for the production, transmission and distribution system of electricity and related other work and to construct, conduct, preserve and promote the production lines and other related facilities which are necessary for the implementation of the plan.
- To fix electricity fee and other service charge relating total electricity.
- To make and cause to make arrangement for higher training and study with a view to prepare expert manpower relating to production, transmission and distribution of electricity, to provide technical advice and constancy relating to production, transmission, and distribution of electricity.

1.1.4 Rights of Nepal Electricity Authority

The rights of NEA will be as follow:-

- To create loan from foreign government or foreign institution and international institution.
- To receive loan from national institution, banks or individuals.
- To sell and buy electricity to and from foreign countries.
- To check the authority consumption of electricity applied by authority.
- To buy electricity production from private sectors.
- To collect fees of electricity and services charges from the consumers.
- To invest the amount lying in the fund of authority.
- To punish the customers who steal the electricity.
- To do all works which seem to be inevitable and necessary for the fulfillment of the work and duties of its own.

1.1.5 Objectives of NEA

The objective of incorporation is to manage electricity supply by way of effective generation and distribution to make the supply system reliable and accessible. Its present objectives are:-

- To supply electricity by way of proper generation transmission and distribution under the prevailing law.
- To develop and implement the program for the production, transmission and distribution of electricity supply.

- For the convenience of the people and industry, feasible project in economically viable area is developed to ensure the supply bye the generation, transmission and distribution of electricity.

1.2 Focus of the Study

Sales budgeting are the major tool of every business enterprises to achieve their goals by removing the clouds of uncertainty and risk.

Without proper planned sales revenue and controlled expenses, desired profit cannot be secured; sales manager organizes and manages staffs, markets quality, quantity inventory etc. according to the sales plan. Sales budget provides basic management decision about marketing. So, it is a prime part of profit planning. The study mainly focuses on the sales budgeting practices and its effects on profitability in NEA.

1.3 Statement of the Problems

Nepal Electricity Authority is suffering loss since last years despite monopoly and increasing sales trend. There may be some problems about sales budgeting as well as profit planning. The study will seek answer of the following research problems:-

- Is there any sales budgeting system in Nepal Electricity Authority?
- What is the problem related with sales budgeting Nepal Electricity Authority is facing?
- What is the relation between sales and profit of Nepal Electricity Authority?

1.4 Objectives of the Study

The main objective of the study is to analyze the sales budgeting, system of NEA. Besides these, following are the specified objectives of the study:-

- To analyze the sales budgeting and practices adopted by Nepal Electricity Authority.
- To examine sales trend of Nepal Electricity Authority.
- To analyze the relation between budgeting sales and its effect on profitability of Nepal Electricity Authority.
- To provide recommendation and suitable suggestions to the Nepal Electricity Authority.

1.5 Significance of the Study

Profit planning or budgeting technique starts with planning the sales or sales budget that is an estimation of future sales revenue and sales volume. Proper sales budget or sales plan removes the clouds of uncertainties and risks about future revenue incorporates management judgments and decision in planning process, provides necessary information for other parts of profit planning and control, facilitates, the management controls of the sales activities.

Sales' budgeting improves sales revenue, minimizes future risk and uncertainties and maximizes the result. The significance of sales budgeting reflects the basic significance of overall profit planning and control because it only relates with revenue and all other budgets are directly or indirectly based upon it. Mainly, this study will be useful and beneficial to the following group and individuals.

- For major stakeholders who are interested to sales budgeting of Nepal Electricity Authority.
- For Nepal Electricity Authority to improve sales budget or sales plan.
- Further researcher to do further research in future.
- The university students who will be conducting studies in the same area.

1.6 Limitation of the Study

The study is confined only to the sales budgeting and its relation with profit planning in Nepal Electricity in Nepal Electricity Authority. The following factors have limited the scope of the study.

- This study covers only last five years trends and data.
- This study concerns only sales and its relation with profit planning in Nepal
- Electricity Authority. This study may or may not be applicable to other public enterprises.
- Time constraints may limit the areas covered by the study.
- The entire study will be based upon secondary data and a few primary data.

1.7 Research Methodology

Research methodology refers to the various sequential steps to be adopted by a researcher in problem with certain objectives in view.

This study intends to show the relation of sales budgeting in the fields of profit planning. It requires an appropriate research methodology. This study collects secondary data as well as some primary data from related departs, libraries, articles, persons, groups, thesis reports etc. Available data and information are presented and analyzed with the various statistical, mathematical tools and according techniques in order to come to decision. In this research study, main relevant research designs will be followed:-

a. Descriptive Research Design
b. Analytical Research Design
c. Case Study Research Design
d. Historical Research Design

1.8 Organization of the Study

This study has been divided into five chapters. They are as follows:-

Chapter-I Introduction

This chapter deals with the subject matter of the study consisting background of the study, brief overview of Nepal Electricity Authority, statement of the problem, objectives of the study, significance of the study and limitation of the study.

Chapter-II Review of Literature

This chapter deals with the review of literature relating to electricity includes review of books, review of bulletins, journals and annual reports published by Nepal Electricity Authority, review of related articles and studies and previous thesis as well.

Chapter-III Research Methodology

This chapter deals with research design, nature and sources of data, population and sample, data gathering procedure and tools of data analysis. For the data analysis, various financial and statistical tools have been used.

Chapter- IV Data Presentation and Analysis

This chapter deals with the presentation and analysis of relevant data. Various data are gathered from the application of different methods presented and tabulated as required by the research objectives. Data are interpreted and analyzed with the help of various analytical tools and techniques. It also includes major findings of the study.

Chapter-V Summary, Conclusion and Recommendations

This chapter includes summary and conclusion of the study. It also includes recommendation on the basis of the study.

CHAPTER - II

REVIEW OF LITERATURE

Review of literature is a way to discover what research in the area of stated problem has uncovered. It provides foundation for present study, establishes a point of departure for future research, avoids needed duplication of costly effort, and reveals areas of needed research. It enables the researcher to know about what research has been done in the subject, what theories have been advanced, the approach taken by other researchers and shows gap to fill through the proposed research *(Wolf & Pant, 2002: 34-35).*

In this chapter, the focus has been made on the review of literature relating to the sales budgeting and its effect on profit planning of public enterprises. Every study is very much based on past knowledge which is the key of present knowledge. This chapter helps as adequate feedback to broaden the information and to base the inputs of study. Therefore, the review of literature has its own importance.

This chapter has been reviewed the study with the help of related text and reference books, research reports or thesis articles consulting in the library, journals, media etc. by classifying them in following three parts:-

- Conceptual or Theoretical Review
- Review of previous related research report or Thesis
- Reviews of journals, opinion, media etc.

2.1 Conceptual or Theoretical Review

In this review, concept of profit planning and control, sales budgeting and the effect of sales budgeting on profit has been reviewed with the help of related text books, reference books, articles etc.

2.1.1 Profit Planning and Control

2.1.1.1 Profit

In the beginning, business enterprises are established to earn profit and later then, enterprises are operated by the profit to earn the profit, therefore, profit is the prime measure of enterprise success, continuity, self-survival, growth and the degree of theirs goal achievement. General definition of profit is the amount of revenue earned exceeds expenses incurred during an accounting period. Revenues are the values of outputs or services supplied to the customers and the expenses are the cost of earning revenue within an accounting period.

Multiple meaning of the word ‘profits’ have always been some trouble. Economics theories on profits may be put in three groups. The first looks upon profits as the rewarded for bearing risks and uncertainties, the second views upon profit as the consequences of frictions and imperfections in the competitive adjustment of the economy to dynamic changes; the third sees profits as the reward for success innovation..

A labor leader might say that it is a measure of how efficiency has produced and that provides a base for negotiating a wage increase. An investor will view it as a return on his or her money. An internal revenue agent might regard it as the base for determining income taxes. The accountant will define it simply as the excess of firm’s revenue over the expenses of producing revenue in a given fiscal period.

Using accountant’s measuring stick, management thinks of profit as:

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

It is the ultimate objectives of management to maximize profit over the long-term consistent with its social responsibility (*Lynch and Williamson, 1984: 100).*

In the context of profit planning and control, profit denotes the excess of outflow (revenue factors) over the inflows (cost factors). The essential inflows are people capital and materials and they are generally cost incurring factors. On the other hand the planned outflows of are products, services and social contributions that the enterprises generate. The planned outflows of products and services generally, are of revenue generating factors. The excess of enterprises revenue earned over its cost spent for producing revenue within a definite accounting period is called profit. In other sense; profit means return on investment.

Profit is an essential fuel to drive business a head and to survive business effectively, efficiently and economically. No business enterprises even public enterprises can self survive in the absence of profit for long time. That’s why profit is the prime goals of every type of business enterprises.

2.1.1.2 Planning

Planning is the process of developing enterprises objectives and selecting a future course of action to accomplish them. It includes:-

- Establishing enterprise objectives and goals.
- Developing premises about the environment in which they are to be accomplished.
- Selecting a course of action for accomplishing the objectives and
- Current re-planning to correct current deficiencies.

Planning consist in setting goals for the firm both immediate and long range, considering the various means by which such goals may be achieved, and deciding which of any available alternative, means would be best suited to the attainment of the goals sought under the conditions expected to prevailing. Planning is deciding in advance what to do, how to do it, when to do it and who is to do it. It provides the ends to be achieved.

Management planning involves uncertainty and reliable forecast can help reduce the uncertainty in planning. Planning is the first function of management and is performed continuously because the passage of time demands both re-planning and making new plans. Management planning provides the basis for performing the four other functions *(Welsh, et al, 2000:4).*

Strategic and functional, short range and long range formal and informal, adohic and standing planning, administrative and operational planning are the various types of managerial planning. Mainly two types of planning i.e. strategic and tactical are the prime aspects in planning of profit planning and control.

2.1.1.3 Control

Control is a function in the management process and one of the prime parts of profit planning and control. As with planning, controlling is performed continuously. Therefore, there is a control process that should be always operating in a enterprise. Controlling can be defined as a process of measuring and evaluating actual performance of each organization component of an enterprise and initiating corrective action when necessary to ensure efficient accomplishment of enterprise objectives, goals, policies, and standards. Planning establishes the objectives, goals, policies and standards of an enterprise. Control is excused by using personal evaluation, periodic performance reports and special reports. Another view identifies the type of control as follows:

- Preliminary Control (Feed forward): Used prior to action to ensure that resources and personnel are prepared and ready to start activities.
- Concurrent Control (Usually periodic performance reports): Monitoring (by using personal observation and reports) of current activities to ensure that goals are being met and policies and procedures are being followed during action. *(Adam & Ronald ,1985:552)*
- Feedback Control: Expert-action (pre-planning) focusing on past results to control future activities.

Besides these controls, other types of control are internal and external control, formal and informal control, systematic and adhoic control, activities control, Physical and financial control etc *(Bhatt, 2062: 338).*

Planning and control is the base-camp of profit planning and control system. After defining about profit, planning, and control individually, now, it is going to present holistic theoretical concept of profit planning and control.

2.1.1.4 Profit Planning and Control

Profit is the ultimate goal of every business enterprises. They involve in business for making profit. Profit cannot be achieved automatically. It should be managed well with better managerial skills. So, the profit is a planned and controlled output of management profit planning and control means the planning of revenue (i.e. increase the revenue) and control the cost (i.e. control the inefficiency of cost). So, the planning and control are emphasizing in profit planning and control out of five functions of management. These provide bases camp for PPC.

The management is efficient if it is able to accomplish the objective of the enterprise. It is effective, when it accomplishes the objective with minimum effort and cost. In order to attain long-range efficiency and effectiveness, management mush chart out its course of action in advance. A systematic approach for attaining effective management performance is profit planning and control, or budgeting. In a way, a budgetary control system has been described as a historical of a goal setting machine for increasing enterprises' profits and goal achieving machine for facilitating organizational co-ordination and planning while achieving the budgeted targets (*Pandey, 1994:285).*

Comprehensive profit planning and control is only a new term in the literature of business, not a new concept in management, not an end and substitute of management. The other terms, which can be used in same context, are comprehensive budgeting, managerial budgeting and simply budgeting. The profit planning and control also can be defined as a process/ technique / tool of management that enhances the efficiency of management.

Some definitions given by various scholars are:-
Comprehensive profit planning and control is defined as a systematic and formalized approach for performing significant phases of the management planning and control functions.

A profit plan or budget is the formal expression of the enterprises plans and objectives stated in financial terms for a specified future period of time.

Eric Kohler has given a comprehensive definition of budget. Budget is:

A financial plan serving as a pattern for and a control over future operations; hence any estimate of future costs. A systematic plan for the utilization of manpower, material or other resources.

A budget is a comprehensive and co-ordinate plan expressed in financial terms for the operations and resources of an enterprise for some specific period in future *(Frengen, 1999).*

Planning is the specific process of setting goals and developing ways to reach them. Stated another way, planning represents the firm's effort to predict future events and be prepared to deal with them *(Hamplas, 1997).*

Profit planning and control involves:

- Development and application of broad and long-range objectives;
- Specification of enterprise goals;
- Development of strategic profit plan in broad term;
- Specification of tactical short range profit plan detailed by assigned responsibilities (divisions, departments, projects);
- Establishment of a system of periodic performance reports detailed by assigned responsibilities; and
- Development of follow up procedures.

Hence, profit planning and control guidelines to management and acting as signal light to show its direction for achieving maximum result within a definite period *(Welsh et al, 2000:31).*

2.1.1.5 The Basic Elements of Profit Planning

- The basic comprehensive and co-ordinate plans. The profit planning considers all activities and operations of an organization. The budgets prepared by different departments inside an organization gave to be complied or co-ordinate and it is done by profit planning. So, before preparing a profit planning, firstly, all the departments have to be complied and that budget is known as comprehensive budget or profit planning.

- It is a plan for the firm's operating and resources of budget is a mechanization to plan for the firm's all operations or activities. The two aspects bust plan for quantity revenue and expenses. The budgets must plan for quantity revenue and expenses related to specific operations. The plan should be made for carry out the operations. The planning for resources will include planning assets and sources of funds.
- It is expressed in financial terms. All activities covered by budgets are related with funds. Therefore, the budget has to be expressed as in memory units i.e. in rupees, dollars, pounds, etc.
- It is a plan for specific period. Time dimension must be added to a budget. A budget is meaningful when it is related to a specific time. The budget estimates will be relevant only for some specific period.

2.1.1.6 The Fundamental of Profit Planning

The concept of budgeting was originally established with function of an accountant. At its origin, the function of budgeting was assigned to the accountant. But in modern day, budgeting is given much more importance and is regarded as a way of management and in more important sense is regarded as a way of management and in more important sense is regarded as basic techniques of decision making and is given the name "Profit Planning and Control program".

A well established and a well-understood profit planning and control concept lead an organization to ultimate success. However, a failure to grasp this concept leads to a chaos for a business. So, just to understand this concept better. Consideration should be given to following points:-

1. The Mechanism of Profit Planning and Control

Mechanism of the profit planning includes the matter related with design of budget schedules and routine computation and checks of such schedules.

2. The Techniques of Profit Planning and Control

Those approaches like forecasting sales volume, a frequent application operation research (approach in resolving the sales, production, inventory problems, break-even analysis, resource determination) which can be developed and used for managerial decision making process is known as techniques.

3. The Fundamental of Profit Planning and Control

The fundamental are concerned with effective application of the theory at management process. It is applied for desirable management orientation; these fundaments need to be established as a sound foundation of managerial commitment. The some of the important fundaments of profit planning and control are briefly explained as follows:-

a) Managerial Involvement and Commitment

Managerial support, confidence, participation and performance orientation includes managerial involvement. All level of management especially top level management should engage itself to comprehensive profit planning and control.

Involvement in profit planning and control means to understand, to select, to devote us, to support by its entire department and to evaluate the performance of the profit and control. For profit planning and control, the direction should come from top and the implementation level should follow it into. The most difficult task for the financial executive is not only to prepare budget but also to sell it to the chief executive. Therefore, that concern or the business is considered very fortunate which has got very active chief executive who himself initiates, prepares and implements the comprehensive profit planning program.

Managerial involvement on comprehensive profit planning and control program is directly related to the confidence of management and its known ability to influence the future program and convincement with the idea of setting goal in advance. Managerial involvement also deals with the idea of direct participation of the lower staff on program. However, one should not forget that the ultimate decision should come from the top level and idea of “protect own-self” should be totally controlled.

Modern concept of comprehensive profit planning and control program or budgeting has emphasized on managerial involvement. Due to the fact that modern budgeting believes on performance expectation rather than on fiscal expectation. Because modern business believes on the principle of attaining set objectives or goals rather than earning short run more monetary profit.

b) Organizational Adaptation

A success of PPC program rest upon the sound organizational structure and also on a clear cut designation of lines of authority and responsibilities of all department of an enterprise the responsibility of or the obligation of each departmental manager should be well-clarified. Sometimes indirect relationship of relationship also plays great role in an organization. Therefore, it is advisable to clarify well-co-ordinate all round responsibility and authority of and between the departments.

For easy and effective control some time the organizational structure are divided into difference functional subunits chiefs are assigned with specific decision centers or responsibility centers sometimes these responsibility centers are used to be in form of a division or department or a sales district. However, in most of the cases, these centers are use to be functional like:

- **Cost Center: -** Cost center is only responsible for controllable costs incurred in the subunits but not responsible for profit or investment.
- **Profit Center:-** Which is the responsible center responsible for cost and revenue and hence for profit.
- **Investment Center:-** Which responsible for cost revenue, profit and amount of investment invested an assets (return on investment)

A part from functional sub-division organization structure sometimes refers to assignment of management of management authority and responsibility also. Whatever may be the nature or sense to organizational structure? One should always bear in mind the fact that no organizational structure can be taken as ends itself but it should always be treated as means or tools to attain the goal. So to attain the set goal or objective of comprehensive profit plan and control program organizational set up must be favorable in nature and all the function sub-units have to be participated actively.

c) Responsibility Accounting

Planning is done with the help of historical data supplied by accounting section and control is done by comparing actual data with projected or planned data. Therefore, for this reason accounting system of any enterprise should be built around the responsibility structure of organization or around function sub-units. This is called responsibility accounting. For responsibility accounting system one should have to define. Now a day’s situation has changed and it is given more emphasis on cost planning them only by a costing. This changed in priority is bases upon the responsibility accounting principle and principle of product cost has been given secondary importance. At first, cost data generated from historical cost accounting are used for cost planning and control purpose then the same cost data is used for costing purpose.

If the parameters of cost and revenue are used in accounting system or are not used for costing purpose. Valuation of the result by comparing it with planned goal will not be effective. So, for evaluation purpose and for accounting purpose, each of the responsibility center have to prepare chart accounting parameters to be used for planning purpose and have to supply it with full instruction to respective unit then only the main objective of the responsibility accounting can be fulfilled.

d) Full Communication

Communication can be defined as an interchange of though or information to bring about a mutual understanding between two or more parties. Communication can be dialogue, message or understanding working together. Although most important thing for any organizational observation and control. Most of the organization faces lot of problem due to bad communication system.

Communication is needed for both the feed forward and feed back process which is most important for operation of any organization. Role of communication can be justified in all aspect of management. It is needed either for decision making or for supervision or evaluation. Flows of information must be adequate in all side (downward, upward and late-rally).The following are the barriers to effective communication.

i. Badly expressed messages
ii. Faulty translation
iii. Loss by transmission and poor retention
iv. In attentions
v. Unclear assumption

vi. Insufficient adjustment period
vii. Distrust of the communicator
viii. Premature evaluation
ix. Fear
x. Failure to communicate

For CPPC effective communication means development of well defined objective, specification of goals, development of profit plans and reporting and follows up activities related to performance evaluation of each responsibility center. To have communication for CPPC both the parties related with the planning activities.

e) Realistic Expectation

Profit planning and control must be based on realistic approach or estimation. Management must use realistic assumption and must not take either irrational optimism or unnecessary conservatism.

Perfection on setting goals or objectives of the future sales, production levels, costs, capital expenditure, cash flow and so on determine the success of profit planning and control program. So, for profit planning and control purpose, a realistic approach reared with time dimension and external or internal environment that will prevail during the time span should be considered. This is called realistic expectations.

Before preparing comprehensive profit planning and control program, management have to take a good care that the goal or objectives which is going to be determined neither should be too low nor should be too high but should be attainable high level efficiency because goals set very low will destroy motivation as it does not require efforts and goal set high will discharge the implementer as it would be not be attained with existing capacity of the units. But the goal which will be of challenging nature will be of real value and will keep the organization alert which is the main objective of the realistic expectation.

For budgeting purpose, also realistic expectation is needed because either over or under estimate of the budget in one unit will have negative effect on other units which ultimately, destroy whole planning of the enterprises.

f) Timeless

Whether an individual or and any entity remains idle or busy, time passes at the same time. The problem of the manager in one hand is to accomplish the planned activities in a given time a don the other hand is to prepare plan itself. Phasing of the planning is of two types: (a) Timing of planning horizon and (b) Timing of planning activities. Planning horizons is the time for which the planning is done or we call it life span of the plan. For any enterprise there use to be many planning horizons to maintain the continuity of planning activities.

Planning horizons is the time for which the planning is done or we call it life span of the plan. For any enterprise there use to be many planning horizons to maintain the continuity of planning activities. The decision made by the manager for future activities reflects the managerial planning. In other words, managerial decision, which reflects planning activities, always has effects on future activities only. It does not have any effects on present or past. Major decision should be made based on adequate supporting study, analysis evaluation and consolation.

For effective implementation of planning, management of an enterprise must establish a definite time dimension types of activities. In other word for each activities related with planning would be given definite time for implementation, followed by other activities. This is called planning activities.

From the view of point of time dimension, a manager should maintain clear cut distinction between historical and futuristic can consideration. Because the result derived from historical activities should be considered as platform for deciding plan.

g) Flexible Application

Profit planning and control program or any other management technique should not dominate management slowly. Any of such techniques of management must be flexible, not rigid because these are techniques or means only not the end of the management itself because the main end or aim of the management is to use the resources in the most effective way and earn high return on investment and for this purpose PPC or other techniques are used as means only.

Unlike budget, which imposes rigidity on any activity and put constraint on the decision-making freedom of managers? Profit planning and control program permits freedom to all managers. This is possible in profit planning because in the course of preparation profit planning and control program all level of managers are involved and hence the top level management will have privilege to make necessary decision and delegate more responsibilities to the manager, this position give more power to unit managers, the power of making favorable decision. In such a situation the profit plan place management in the position of being able to assess, on a more objective basis, the soundness of completed decision. Profit planning and control approach use to have place for such unanticipated events and adjustment for the same.

To cost control also, the principle of flexibility is especially important. Expenses and cost budgets must not be rigid in nature. Budget should not prevent any of the units to make rational decision and to take opportunity benefits merely on the ground that such expenses are not anticipated. Sometimes for one or the other reason variable cost has to be spent much for the benefits of the organization. This benefit necessarily needs not to be in from of monetary benefits. Sometimes additional variable cost has to incur just to have more good will or to secure more market for their products. Any rigidity on such opportunity cost may sometimes hamper the goodwill of the enterprises.

Finally, it can be said that for profit planning and control purpose, budget should not be regarded as straight jacket and for management purpose, the profit planning and control approach should not be regarded as the constraint for the management to seize the opportunities which is going to be most beneficial for the enterprises in long-run.

h) Individual and Group Recognition

Behavioral aspect of human being is of the field of study of the psychologist, educators and businessman, and finding was that there can be so many unknown misconception and speculations which has to consider for an efficient management. A good and dynamic leadership can resolve this problem by integrating all the group efforts for betterment of the organization. This fact also has been well considered under profit planning and control approach and focus have been given to resolve the behavioral problems

Due to lack of understanding between the working group, of the program and its operation effects on them, and expectation of over pressure and disagreement with planning and control approach (which is mainly based upon the recognition of group and individual importance on management). However, a careful management has to tackle this problem very carefully and have to divert the attention of the workers in positive way.

i) Follow-up

The importance of action on PPC approach is much more. Follow up action after a careful study is needed to-

i. Correct the action of Substandard Performance in a constructive manner.
ii. To recognize and transfer the knowledge of outstanding. Performance to others and based on study and evaluation to provide a sound basis for further PPC program.

2.1.1.7 Purpose of Profit Planning and Control

A comprehensive Profit Planning and Control is a systematic and formalized approach for stating and communicating the firm's expectation accomplishing management is such a way to maximize the use of a profit is to achieve the maximum benefit from the resources available to an organization over a particular span of time. It serves as a tool for management control. The maximum objective of PPC is to assist in systematic planning and in control operations of the enterprise. In fact, it is best source of communication and an important tool in the hands of management. The purpose of budgeting or PPC may be summarized as follows:

1. To state the firm's expectation (goal) in formal terms clearly to avoid confusion and facilities their attainability.
2. To communicate expectation to all concerned with the management to the firm so that they are understood supporters and implemented.
3. To provide a detailed plan of action for reducing uncertainty and for its proper direction of individual and group efforts to achieve goals.
4. To coordinate the activities and efforts in such a way that the use of resources is maximized.

2.1.1.8 Application of Time Factor in PPC

Whether an individual or an entity is idle or busy, time passes at the same rate. We seldom, if ever, have time to do many things that we would like to do, nor do we have time to do many things as much as we would like. The problem of the manager in one hand is to accomplish the planned activities in a given time and on the other hand is to prepare the plan itself. Thus, the planning function often suffers. Two important timing issues require careful attention if the planning function is to be carried out effectively. Among these timing issues one relates to the concept of a planning horizon, and the other relates to the timing of planning activities. *(Welsh et al, 2000: 36-38).*

1. **Planning Horizon**

Planning horizon refers to the period of time into the future for which management should plan. We can call it life span of the plan. For all enterprises, many planning horizons are needed to maintain the continuity of planning activities. The decision made by the manner for future activities reflects the managerial planning. In other words, managerial decision, which reflects planning activities only. It does not have any effects on present or past. Major decision should be made on adequate supporting study, analysis, evaluation and consolation.

2. Timing of Planning Activities

For effective implementation of planning, management of an enterprise establish a definite time dimension types of activities related with planning would be given definite time for implementation followed by other activities .this is called planning would be given definite time for implantation followed by other activities .This is called planning activities. From the view point of time dimension a manager should maintain clear-cut distinction between historical and futuristic consideration. Because the result derived from historical activities should be considered as platform for deciding plan.

2.1.1.9 Strategic and Tactical Profit Plans

To concurrent profit plans are developed one strategic i.e. (long-range) and other tactical (short-range). The strategic profit plan is broad, and it usually encompasses three or more years in future. The tactical profit plan is detailed and encompasses a one-year time horizon-the upcoming year. Some concepts about these are summarized as follows:-

Strategy (long-range) Profit Plan	Tactical (short-range) Profit plan
● Broad	Detailed
● Long-term	Short-term
● Broad responsibilities	Responsibilities at all level
● Quantified	Quantified

The development of strategic and tactical profit plans each year is a process that involves managerial decision and ideally a high level of managerial participation.

The planning function should vary in scope and intensity with the level of management. Top management has a much broader planning responsibility than lower management and yet each level of management should have definite planning responsibilities.

2.1.1.10 Application of PPC to various types of Organizations

Some people say that comprehensive profit planning and control is applicable only to large and complex organization. Also a not unusual comment is that "Comprehensive budgeting is a fine idea for most business but ours is different" or "it is impossible to project our revenues and expenses" and so on. Sometimes specific industries are viewed as not amenable to profit planning and control. These views are common regarding non-manufacturing enterprises-services companies, financial institutions, hospital, certain retail business, construction companies and real-estate enterprises. To the contrary, profit planning and control can be adapted to any organization (profit or non-profit, service or manufacturing) , regardless of size, special circumstances or critical problems is frequently a good reason for the adoption of certain profit planning and control procedures. In respect to size, when operations are executive enough to require more than one or two supervisory personnel, there may be a need for profit planning and control applications. The smallest company certainly has different needs in this respect than a large one. As with accounting, a single profit planning and control system that is appropriate for all enterprises cannot be designed. A profit planning and control system must be tailored to fit the particular enterprises, and it must be continually adopted as the enterprise and its environment charge.

2.1.1.11 Advantages and Limitation of Profit Planning and Control

The advantages of profit planning and control are as follows:

1. **Basic Policies:** Profit planning foresees early consideration of basic policies.
2. **Discipline in Operation:** Profit planning ensures discipline in operation. It requires the whole organization to undertake systematic action in the development of operating plan.
3. **Realization of Actual needs and wants:** Profit planning helps one to distinguish between actual needs and wants. It enables the management to lay down and order or priorities and reflects some planning of long and short term requirements in a business.
4. **Consciousness:** Profit planning encourages an atmosphere of profit consciousness and cost consciousness throughout the organization.
5. **Identification of changes:** The current year's budget is usually adjusted to reflect changes in material cost, labor rates, which can be easily identified.
6. **Incentive for management:** Manager at different levels has to participate in the development of the profit plan. This provides an excellent training ground for the managers to know the process of planning in depth.
7. **Management by Exception:** The different accounting reports concentrate on the variations from the plan. They pinpoint significant exception. This naturally supports the practice of management by exception.
8. **Periodic Appraisal:** Profit planning necessitates a periodical and critical appraisal of every element of a business. It reviews the necessity and cost of such function.
9. **Accounting into the future:** Profit planning projects accounting into the future. It reflects the pattern of a plan, which is directed towards future.
10. **Refinement:** P.P can be refined and approved in good time for implementation.
11. **Co-ordination:** It necessitates a high degree of coordination and team work.
12. **Deficiencies Detected:** P.P brings into the limelight those areas, which are deficient in certain respect.

13. **Result:** If properly organized and fully supported by the management P.P. yields good result.
14. **Profit Consciousness:** It generates profit consciousness and provides encouragement and incentives to the management to look out for profit making or cost saving opportunities.
15. **Responsibility Center:** As decentralization of responsibility is a feature of P.P. each manager works critically in his own area of responsibility. P.P. thus fixes the responsibility center for the manager.
16. **Maintaining Profit Level:** Well organized P.P. programs enable the management to maintain a level of profits which will ensure the continuation of the business and the fulfillment of management responsibilities.
17. **Understanding Co-worker's Problem:** It promotes understanding among member of management on their co-workers problems.
18. **Remove the cloud of uncertainty:** it tends to remove the cloud of uncertainty that exists in many firms, especially among lower levels of management relative to basic policies and enterprises objectives.

Profit planning and control is an important tool for management. However, each tool suffers some limitation and its use is fruitful within these limits. PPC is also not a limitless tool, so it is essential that the use of PPC must be having a full knowledge of its limitations.

The limitations/ disadvantages of PPC or budgeting are as under:-

1) **Based on Estimates:** Profit planning is not exact science. It is based on estimates. The success of PPC depends to a large degree on the accuracy with which the basic estimate will be made. Therefore, estimates should be made on the basis if of all the facts available. Using correct and modified statistical techniques and management can make the accurate estimates.

2) **Danger for Rigidity:** PPC is an estimation and quantitative expression of all relevant data. So there can be the tendency to attach some sort of rigidity or finality to them. However, rigidness makes PPC useless. For usefulness, the PPC must be flexible. Various techniques must be tried, improved or discarded and replaced with others. In other words, a PPC program must be dynamic in every sense of the world.

3) **Application for Long Period:** The installation of a complete PPC is not possible in a short period. It should be continuously used in the business and should be revises and modified with the changed situation in the business.

4) **Execution is Not Automatic:** A skillfully prepared PPC will not itself improve the management of an enterprise unless it is properly implemented. For the success of the PPC, it is essential that it is understood by all the related persons inside the enterprise. It is very much required that each executive must feel the responsibility and should make efforts to attain the budgeted goals. Departmental heads should seriously think that it is their individual responsibility to fulfill the target setup in their departmental budget. The success of a budgeting system totally depends upon the efficient management and administration.

5) **Not a substitute for Management:** PPC is a managerial tool. It is not a substitute for the management. It is totally wrong to think the introduction of PPC is alone sufficient to ensure success and to guarantee future profits. It is only for achieving the end.

6) **Costly Affairs:** The installation of PPC system is an elaborated process involving to much time and costs. Normally it is so costly that small column can not afford to it. Even for a large concern. It is suggested that there should be some correlation between the cost of operating a budgeting system and benefits derived from it. The system should be adopted only when benefit exceeds the cost.

7) **Proper Evaluation:** For finding out the inefficiencies, proper evaluation should be made on the absence of proper evaluation, budgeting will hide inefficiencies. So, there should be continuous evaluation of the actual performances, standards also should be re-examined regularly.

8) **Lower Morale and Productivity:** Unrealistic targets should not be set used as pressure tactic. By doing it, PPC will lower moral and productivity. To some extent, PPC may be used as pressure device but its extent must be carefully determined.

2.1.2 Budgeting

Budget is the formal expression of the enterprise's plans and objectives, stated in financial terms for a specified future period of time. In other word, a budget is a comprehensive and coordinated plan expressed in financial terms, for the operations and resources of an enterprise for some specified period in future. Budgets basically, are forecasted financial statements form; expression of management plans, they are targets that encompass all phase of operations sales, production and financial. A budget is a written plan for future consists many functional budgets, include a sales budget, a production budget, a purchase budget, a labor budgets, an equipment purchase budget and a cash budget once all of these budgets are completed the master budget for the entire firm is prepared.

The most comprehensive use of the term is exemplified by the following definition of budget by Eric Kohler as:

i. A financial plan serving as a pattern for and a control over future operation;
ii. Hence, any estimate of future costs;
iii. A systematic plan for utilization of manpower material or other resources.

Implicit in Kohler's definition is the existence of a multiplicity of purposes for which budgets are constructed.

The process of preparing and using budgets to achieve management objectives is called budgeting *(Donor & Gurung, 2062:564)*.

Nowadays, profit planning and control is viewed in a comprehensive way. P.P. is a new modified or holistic term of traditional budgeting. Traditional budgeting is mainly viewed with mathematical as well as manage mental model developed by organization or experts or scholars. Comprehensive PPC is new modified and board term and form of traditional budgeting.

The concept of comprehensive budget covers it's in planning, organizing and controlling all the financial operating activities of the firm in the forth-coming period. Budgeting summarizes the estimated results of the future transaction for the entire company in which the same manner as the accounting process records and summarize s the results of completed transactions. The characteristic, purpose and objectives of budgeting are nearly same as profit planning and control. The main characteristics of good budgeting are as follows:-

- Budgets may be formulated for the organization as a whole or for any sub unit.
- A budgeting is a quantitative expression of a plan of action and aid to the co-ordination and implementation.
- A good system of accounting is also a essential to make the budgeting useful.
- A good budgeting system should involve persons at different levels while preparing the budgets. The subordinates should not feel only imposition on term.
- Budgets are designed to carry out a variety of functions, planning, evaluation activities, implementation plans, communication, motivating and authorizing actions.

The main purpose of budgeting is to ensure the planned profit of the enterprise. So, it is considered as a tax of planning and controlling the profit. Once of the primary objectives of an annual budgets is to measure the profit expectations for the next financial year with due regard to all the circumstance favorable and unfavorable that can influence the trading prospect *(Regineld & Frention, 2004:17).*

2.1.2.1 Budgetary Control

Budgetary Control is a system which uses budgets as a means of planning and controlling all aspects of producing and/or selling commodities or services. For the purpose of Budgetary Control, system of the Management by exception (MBE) and Management by objectives (MBO) are usually followed only the exceptions are reported to the management so that corrective action can be taken in order to achieve the objectives laid down by the management. Budgetary control is another example of management by exception (*Rathman & Halsall, 1994:10).*

Budgetary Control is the establishment of budgets relating the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision (ICMA definition). Wheldon has rightly said that Budgetary Control relates to the persons who incur expenditure, so that actual expenditure can be compared with budgetary expenses, thus affording convenient method of control. This is in contrast to standard costing which relates to product.

Budgetary Control is a system of controlling cost, which includes of budgets coordinating the departments and establishing responsibilities, comparing actual performance with the budgeted and outing upon the results to achieve maximum profitability *(Sharma & Gupta, 2004:782).*

Budgetary Control involves the following:

- The budget is estimated by preparing budgets.
- The business is divided into various responsibility centers for preparing various budgets.
- The actual figures are recorded.
- The budgeted and actual figures are compared for studying the performance of different cost centers.
- If actual performance is less than the budgeted norms, remedial action is taken immediately.

2.1.2.2 Area of PPC

Comprehensive profit planning and control is the new term, modified, modern and comprehensive approach of same traditional budgeting. Therefore all the budgets are covered by PPC or area of PPC. Budgets may be classified from various view points depending upon various bases adopted for such classification i.e. on the bases of time; long term (up to 5 or 10 years) and short term (1 month or 1 year), current budget on the basis of flexibility. Static and flexible budget; on the basis of nature of business transaction; capital expenditure and operating or revenue budget. On the basis of function; sales budget, selling and distribution cost budget, production budget, purchase budget, labour budget, research budget, plan utilization budget, office and administration budget, capital budget, cash budget and master budget etc. Mainly, PPC consists of three main, budgets are briefly explained as follows *(Rathman & Halsall, 1994:10).*

1) **Operating Budget**

Budget related with revenue and expenses such as sales budget, production budget etc is called operating budget. These budgets deal with plans for routine activities.

The main operating budgets are as follows:

i. **Sales Budget**

The sales budget is a forecast of total sales of all the products expressed in terms of physical quantities, prices and values in respect of each product for a future budget period. Sales budget is usually prepared according to product or product groups, territory or area, types of customers etc. It is a primary budget of PPC.

ii. **Production Budget**

The production budget is concerned with estimating the probable output of each product in the forthcoming budget period. The production plan involves determining the number of units of each product that must be manufactured to meet planned sales and maintain inventory levels of finished goods that are to be planned. Thus, the production budget is developed using planned sales (Welsh, Hilton & Gordon "Budgeting: Profit Planning and Control", 5th ed. P.136). This includes production unit and production cost.

iii. **Purchase Budget**

After having prepared the production budget, the material usage and the purchase budget can be easily constructed. Purchase would include both direct and indirect materials and goods. Non-manufacturing company have to prepare purchase budget according to sales unit.

iv. **Direct Labour Budget**

Direct labour budget is the budget which provides planning data about the direct labours requirement, number of direct labours, employees needed, labour cost of each product and investments.

v. **Overhead Cost or Other Expenses Budget**

The overhead cost budget or other expenses budget is related with the formal estimation and planning and controlling with regarding three board categorized expenses: factory or manufacturing, selling and distribution and general administrative expenses. To accomplish planning and controlling objectives, expenses should be classified by responsibility, designated as controllable and non-controllable, and estimated with respect to their cost behavior pattern.

2) **Financial Budget**

The budgets which are concerned with financial implication of operating budget or financial statements such as: cash budget, income statement, balance sheet and changes in financial position. The main financial budgets are briefly explained as follows:

i. **Cash Budget**

A cash budget shows the planned cash inflows, outflows and ending position by interim periods for a specific time span. This method is based on detailed analysis of the increase and decreases in the budgeted cash account that would reflect all cash inflows and outflows from such budgets as sales, expenses and capital expenditures *(Fago, 2004:326).*

ii. **Capital Expenditure Budget**

A capital expenditure is the use of funds (eg cash) to obtain operational assets that will help earn future revenues or reduce future costs. The capital expenditure budget is directly, related to a company's operating assets and cash.

iii. **Budgeted Income Statement**

Income is concerned with determining the total income of the planned period. It is to be prepared under accrual basis rather than cash basis on the basis of other preceding budget.

iv. **Statement of Changes in Financial Position**

Other statements which show the changes in financial position are includes in financial budget. Such as: Fund flow statement, Cash flow statement etc.

v. **Budgeted Balance Sheet**

Budgeted Balance Sheet is concerned with forecasting total assets and properties capital and liabilities or financial position of the company by time period. Budgeted balance sheet is prepared on the basis of all budget and prepared at last of the period.

3) **Appropriation Budget**

Budget which deals with certain specification such as: Advertising, Publicity, research, expenditure. Salary etc is called Appropriation Budget.

2.1.3 Sales Budgeting

Out of three main budgets, sales budgeting is related with operation budget. Generally, sales refer to the sale of goods or rendering of services on cash or credit. In other sense, sales mean "orders received". Sales would only mean sale of good or rending of service and not sale of assets on cash or credit *(Sharma & Pradhan, 2004: 24).*

Budget is the formal expression of the enterprise's plan and objectives stated in financial terms for a specified future period of time. The sales budget is a forecast of total sales of all products expressed in terms of physical quantities, prices and value in respect of each product for a future budget period. The process of preparing and using sales budget to achieve sales objectives is called sales budgeting. In other sense, the entire process of preparing sales budget is known as sales budgeting. Sales budget covers sales forecast, marketing plan, sales expenses or promotion expenses plan. All budgets are affected by sales budget and all budgets except sales budget are related with cost. Therefore, sales budget is the foundation of all other budgets. Sales budget includes both strategic (long-term) and tactical (short-range) sales plan. Sales budget is usually prepared according to product or product groups, territory or area, types of customers etc *(Dongol, et al, 2062: 600).*

Sales planning or budgeting provides basic management decision about marketing. Marketing decisions are approach for developing comprehensive sales plan and profit plan. Therefore, sales budget is the starting point of all other budgets as well as a tool of profit for the every business enterprises either they are manufacturing or non-manufacturing and either public or private enterprises. If sales plan is not realistic, most other parts of overall plan will not be realistic. Management should develop a realistic plan if management cannot develop realistic sales plan, it will be little justified. If it is difficult to assess the future revenue of business there will be little incentives for investment.

A sales plan budget incorporates such management decisions as objectives, goals, strategies etc. These translate into planning decisions about planned volume of goals and services price, promotion and other sales effect.

The primary purposes of sales plan are as below:

a. To reduce uncertainty about future revenues.
b. To incorporate management judgments and decisions into the planning process (i.e. in the marketing plans).
c. To provide necessary information for developing other elements of a comprehensive profit plan, and
d. To facilitate management control of sales activities.

2.1.3.1 Sales Budgeting Vs Sales Forecasting

Sales planning or budgeting and sales forecasting are often confusing and ambiguous. Although, they are related but they have distinctly different purposes. A forecast is not plan, rather it is a statement and a quantified assessment of future condition of the particular subject based on one or more explicit assumptions. A forecast should always state the assumption upon which it is based. All sales budgets are sales forecast but all sales forecast are not sales budgets. Sales forecast may be accepted or modified or rejected by management. In contrast, sales plan incorporates management decision that is based on forecast, other input and management judgment about such related items as sales volume, price, production financing etc. Therefore a sales plan is not conditional but forecasting is conditional and also a staff function. A budget provides standard for comparison, but forecast represents merely a possible event. Budgeting begins after forecasting ends. A sales forecast in converted to a sales plan when management has brought to bear management judgment plan strategy commitment of resources and the managerial to aggressive action to attain sales goals. Without sales planning, no enterprises can service for the long period of time.

2.1.3.2 Strategic and Tactical Sales Plan

A comprehensive sales plan can be classified into two types are expanded as follows:

1. Strategic or Long-range Sales Plan

Strategic Sales plan is also known as long range sales plan. Usually, it is five or ten years strategic sales plan may build up form a basic foundation such as population changes state of economy, industry projections and company objectives.

The long range sales plan utilizes broad grouping of product (product lines), long-term sales plan usually rest very heavily upon sophisticated analysis of future market potentials, which may be built up from a basic foundation such as industry, projections, and population changes are tempered by management major long-range strategy decision. Management strategies long-range strategy would affect such are as long-range pricing policy, development of new directions in marketing efforts, expansion of product capacity entering new industries, expansion or changes in distribution channels and cost patterns.

2. Tactical or Short-term Sales Plan

The short-term sales plan is known as tactical sales plan. Short-term sales plan consumes 12 months of period of future in which plans are made by quarterly or monthly basis. The short-range sales plan includes a detailed plan for each major product and for grouping of minor products. Short-term sales plan must also be structured by marketing responsibility for planning and control purposes. Short-term sales plan may involve the application of technical analysis however judgment plays a large part in their determination. The amount of detail in tactical sales plan in function of the short-range sales plan would include considerable detail where as a long-range sales plan should be in broad terms.

2.1.3.3 Components of Comprehensive Sales Planning

A comprehensive sales plan should satisfy the requirements of and be consistent with, the overall CPPC program. The components sales planning are listed as follows:-

a) External variable identified and evaluated.
b) Broad enterprise objectives and goals formulated.
c) Strategic for the company developed.

Planning premises specified such as and other major components management policies and assumption, marketing plan (sales and service revenue) advertising and promotion plan and distribution (selling expenses) plan are needed for a comprehensive sales plan *(Dongol et al, 2062:600).*

Components of Comprehensive Sales Plan

Component	Strategic Plan	Tactical Plan
Management policies and assumptions	Board and general	Detailed and specific for the year
Marketing plan(sales and service revenues)	Annual Amounts; major groups	Detailed; by product and responsibility
Advertising and promotion plan	General, by year	Detailed and specific for the year
Distribution(selling) expenses	Total fixed and total variable expenses by year	Fixed and variable expenses by month and responsibility

2.1.3.4 Developing of a Comprehensive Sales Plan

For the development of comprehensive sales plan. Welsh, Hilton and Gordon suggested these steps for developing a comprehensive sales plan:-

Step-1:- Develop management guidelines specific to 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 organization
- Preparation of long-tem or strategic sales plan.
- Development of general pricing policy, marketing strategies, competitive position etc.

Step-2:- Prepare one (or more) sales (market) forecast consistent with specified forecasting guidelines including assumption: 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 assumption which should be clearly explained in the forecast.

Step-3:- Assemble all the other data that will be relevant in developing a comprehensive sales plan which are:-

- Manufacturing capacity
- Sources for merchandize to be sold.
- Availability of alternative distribution channel.

Step-4:- Based on step 1, 2 and 3 above apply management evaluation and judgment to develop a comprehensive sales plan. Four different approaches that are widely used in sales plan are:-

- Sales force composite (Maximum Participation).
- Sales division manager’s composite (Participation limited to managers only).
- Executive decision (Participation limited to be management).
- Statistical approaches (technical specialist plus limited participation).

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

2.1.3.5 Consideration of Alternatives

Developing a realistic sales plan involves consideration of numerous policies and related alternatives and among many possible course of action important decisions must be made about such issues as new products, discontinuance of present product, pricing, expansion or contraction of sales areas, size of sales force, new distribution channels, distribution of cost limitations and advertising and other promotional policies.

For illustrative purposes, two pervasive sales planning problems should be considered while preparing sales plan:

1. Price-cost volume consideration in Sales Planning

Price-cost volume strategy is a vital part of sales planning. In a competitive market, price and sales volume are mutually interdependent. Specification of price is so a complicated problem for any company. Thus, these relationships involved in sales plan should be considered.

i. Estimation of demand curve, i.e. the extent to sales volume varies at different offering process.
ii. The unit cost curve, which varies with the level of productive output.

2. Product-line Consideration in Sales Planning

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

2.1.3.6 Methods of Sales Projection

There are various methods to project sales but here some major methods are of sales projections are briefly described as under:

- **Personal Judgment Method**

This method of sales projection is also known as participatory method. Under this method, sales projection will be made on the basis of personal observation without using mathematical formulas.

- **Sales Force Composites Method**

Sales force or sales persons in the field will make sales projection under this method. Steps undertaken by such persons would be as follows:-

i. Receive historical sales data of the area through department.
ii. Collect socio-economic data of the area through proper inspection or informal talk or interview.
iii. Based upon the above two, project sales for the area and submit it to the sales department.
iv. After receiving the sales projection, sales department make necessary adjustment, compile all the projection received for different sales area and prepare sales projection for the company. Then the projection will be submitted to chief for approval.

- **Sales Department Composites Method**

This Method is also known as sales supervisors composites method. The personnel would undertake the following activities under this method:

i. Receives information from sales territories on socio-economic changes.

ii. Based upon information received and historical sales data repair sales projection for company and submit to the chief for approval.
iii. Chief would tentatively approve the budget.

- **Chief Executive Composites Method**

This method of sales forecasting is also known as Rule of Thumb Method. Chief executive projects the sales on the basis of historical sales data and socio-economic information submitted by sales division in this method.

B. Statistical or Mathematical Method

Following are some of the types of statistical or mathematical methods of sales forecasting:-

- **Economic Rhythm Method**

Under this method of sales projection, sales are projected on the basis of rhythm of economic movement such as inflation, recession, cyclical movement etc. Generally, the following steps are undertaken to project the sales under this method:-

i. Projection of historical sales.
ii. Selection of economic factors, which may have impact on sales. Larger the industry and market larger will be the number factors to be selected.

Following factors should be taken as base or basic factors:

- Cyclical factors or variance that shows cyclical movement of economy.
- Seasonal variance that shows seasonal demand trend those have to be developed by the company on the basis of past experience.
- Price variance.

a) Cyclical Sequence (Correlation Method)

This is a type of sales projection, which is based upon the change in certain economic factor that has close relation with sales. Possible groups of factors (from which one factor can be selected) are:-

i. Population growth
ii. GDP growth

iii. Changes in price
iv. Changes in deposits
v. Changes in interest rate

Sales projection under this method is done by:

- Computing historical sales.
- Selecting economic factor.
- Finding out correlation factor between sales and economic factor.
- Projecting the sales.

b) Historical Analogical Method

This method of sales projection is based on historical physical, natural, social, political or cultural events those are expected to repeat in budgeted years, trend analysis.

C. Specific Purpose Method

This method is used for specific types of industry. Different combinations of mathematical are used to compute the sales under this method.

a) **Industrial Analysis Method**

No single company will do the projection separately for their company under this method. They will form a pool and have separate research company to do the sales projection for the industry as a whole. On the basis of the result, each individual company will try to find out their share in the market. The company producing costlier products; products requiring long processing period with wide and competitive market and products with frequent change technology like automobile, aircrafts, electronic equipments etc mostly uses industrial analysis method of sales projection.

b) **Product line Analysis**

This method is useful for industries producing more than one product from single raw material or many raw materials. Under this method of sales projection, the projector will project sales for each individual product separately, total them and present them as sales projection for the company. This method can be used by petroleum producing industry, dairy, chemical industry and confectionary.

c) **End use Analysis**

Under this method, a company will project the sales of another company's product where its end product be used as a part or raw material. This method is useful for the industry producing primary products, which can be used as raw material in another product. This method may be used by tire industry, tube industry, battery industry, spare parts industry, flourmill industry etc.

2.1.3.7 Sales Budgeting as the tool of Profit Planning

For the application of comprehensive profit plan, an enterprise should adopt the number of budgets. One of them is sales budget. Budgeting means deciding or estimating in advance the course of action to achieve a particular target or objectives in a given period of time along with the numerical expression of the inputs required and outputs expected *(Jakhotalia, 199:1).*

Sales planning or budgeting provides basic management decisions about marketing. Marketing decisions are the basic approaches for developing comprehensive sales plan and profit plan. Therefore, sales budgeting is a necessary part PP for the every business enterprise either they are manufacturing or non-manufacturing and either public or private enterprises. If sales plan is not realistic, most other parts of overall profit plan are not realistic. Management should develop a realistic sales plan. If management cannot develop realistic sales plan, it will be little justified. If it is difficult to assess the future revenue of business, there will be little incentives for investment. The prime objective of business enterprise is to generate profit. So, first consideration of sales plan must be made from profit plan. To attain planed profit, sales should be properly budgeted or planned. In today's modern business production is for sales and inventory and inventory is also for sales. All cost or expenses are planned according to sales budget. So, sales budget is the foundation of all budgets.

All budgets except sales budget are related with cost. On the basis of sales budget, production budget or planning is made. This planning depends on the capacity of the plant. And all other functional budgets are prepared on the basis of the production budget. In this way sales budget is first prepared and it is variously termed as commencement of the budgeting, a nerve centre or back bone of the enterprise, foundation budget or corner stone of budgeting, initial or ice breaking or preliminary budget etc.

By reducing the clouds of uncertainty, removing the risk of future revenues and present investment. A proper or appropriate or systematic sales budgeting directly or indirectly forms foundation for all the other budgets and ensures to receive the planned profit of the enterprise therefore sales budgeting is as the tool of profit planning.

2.2 Review of Previous Research Studies

There was not seen any research papers concerning the particular topic i.e. "sales budgeting as the tool of profit planning in public enterprises: A case study of NEA" when I submitted thesis proposal related to it in the Shanker Dev Campus. Most of the students of Account group have done the researches in the topic of profit planning and control of different public and non-public enterprises. Sales budgeting is the prime tool of profit planning in all types of business enterprises. Without sales budgeting, other plans of PPC cannot be prepared.

Some of the previous related researches' major objectives, finding and major recommendations are as follows:-

Uprety (2006) entitled *"An analysis of profitability performance of Nepal Electricity Authority"*. His research centered to analysis and evaluates the financial performance of NEA in terms of profitability and rate of return on the basis of selective financial tools.

His Major Findings:

a) NEA is not successful over the study period to earn a fair rate of return from its operation. Net profits are negative in some year. The causes of this low profitability are a huge amount of operations expenditure and general expenditures. The expenditure seems uncontrollable due to over staffing, high amount of depreciation caused by huge investment in fixed assets and deferred expenditure. Thus these huge amounts of expenditure have become instrument to reduce profit earning capacity of NEA.

b) The inefficient utilization of fixed and other assets of NEA has become a major cause for its low profitability. The investment in assets has almost only 9 times increased than the initial position. This indicates that NEA's management has become failure to properly utilize its assets. The analysis reveals that assets turnover and return on assets of NEA are in less than satisfactory position.

c) The amount of capital in the form of equity and long-term liability has shown the tendency of annual increase. The funds are tied up in account receivable, advance recoverable and inventory which are not productive. This locking up of large volume of working capital also might have some implications reducing the profitability of NEA to extent.

His Major Recommendations:

a) To achieve target growth rate in sales revenue, NEA should make realistic forecasts.

b) The authority should maintain its periodic performance report systematically and variance analysis should be effective to NEA.

c) The authority should reduce the maintenance and operation expenditure to maximize its operating profit. For this purpose, cost control program can be done and alternative for the replacement of long-term loan should be decreased.

Dahal (2005), entitled *"Profit Planning System and Financial Condition of Nepal Electricity Authority"*. He has pointed out some objectives in his work

His Major Objectives:

a) To examine the present planning premises adopted by NEA on the basis of budgeting.

b) To observe the NEA's profit planning on the basis of overall managerial budgeting.

c) To analyze the variances between budgets and actual achievement of the authority.

d) To assess the financial performance of NEA.

His Major Findings:

a) NEA has a practice of preparing both strategic long range and tactical short range profit plan.
b) Actual sales are less than actual productions and it indicated the remarkable loss of power in NEA.
c) Overheads are not classified systematically and it creates problem to analyze its expenses properly.
d) Total assets turnover ratio, profitability ratio and return on net capital employed ratio are not perfect satisfactory through acid test ratio seems better.

His Major Recommendations:

a) The burden of huge amount of interest upon NEA can be minimized by re-structuring its capital structure and for this it can issue the shares and can refund the debt.
b) NEA should try to increase the sales volume and should reduce the power purchases. It can be done by either reducing leakage, establishing new plants or by increasing the capacity utilization.
c) Leakage of the electricity should be controlled by improving meter reading and meter reading system and also by motivating and high moralized the employees or staffs.
d) NEA should try to maximize its operating profit by launching cost control program and selecting alternative by re-planning existing system.
e) Small hydro-project with low cost should be encouraged. Private sector should be attracted to invest in hydro-projects.
f) Vehicles of NEA shouldn't be provided to any unconcerned persons or parties or leaders because of political pressure.
g) To make profit planning system more progressive, the effective implementation of management system is very essential. These should be timely evaluation of relevant variables. And moreover, managerial involvement or generational adoption, responsibility, time-dimensions, flexible application, behavioral viewpoint and follow up program should be made more effective, productive and result-oriented.

Goet (1999), entitled *"Revenue planning and management in Nepal: A case study of Nepal Electricity Authority"*. NEA has not considered major demand determinations of electricity such as family income, price of electricity, connection charges, cost of alternative and cost of auto generation and reliability of NEA's services

His Major Findings:

a) No plan and program have been made about possible consumption of electricity in agricultural sector.
b) Target growth in sales revenue was never achieved except in the year 1995/96. This shows that NEA has failed to convert sales unit into sales revenue.
c) There is absence of actual meter reading by dint of which the charged bills are very low non-reconciliations have been made between units and units billed as well.
d) Revenue is not recognized on accrual basis.

His Major Recommendations:

NEA should consider demand determinants such as family income, price of electricity, connection charges, cost of alternatives available, cost of self-generating of electricity and reliability of NEA service while forecasting demand.

a) NEA should prepare programs and plans for agricultural sector which is capable of massive consumption of electricity.
b) NEA should introduce programs and action plan for the reduction of transmission loss, both technical and non-technical. NEA can improve its efficiency in the meter device instantly either by changing old meters or utilizing only efficient meter readers or by improving its transmission system. Non-technical loss can be reduced by adopting effective managerial, social legal and other measures.
c) Billing should be based on actual meter reading or reasonable estimates of past consumption in the absence of actual meter reading.
d) Revenue should be recognized an accrual basis to comply with present accounting manual.

Acharya (1999), entitled *"Profit Planning in Nepal Telecommunication Corporation."* The main objectives of his study were to analyze the various functional budgets of NTC and evaluate the various between target and actual.

His Major Findings:

a) There is communication gap between department to department and top level management to lower level management.
b) NTC has not practiced to follow the budget principle strictly because the actual overhead is out of budgeted limit.
c) NTC is suffering from high fixed cost.

His Major Recommendations:

a) Some of the expenses are not budgeted but actually done. This should not be done. Budgeting system should be followed.
b) The amount of loan increment is very high in NTC. So, it should issue the share capital and refund the loan, it must use it own sources.
c) While preparing the sales plan, NTC has no practice of C.V.P. analysis. This may bring problems in providing services. It is necessary to know the profit decrement and level. NTC should preferably prepare the C.V.P. analysis.

Bhatta (1998), has conducted a research about *"Profit Planning in Nepal Electricity Authority"*. In this research he has tried to point out some features and problems of profit planning in NEA.

His Major Objectives:

a) To examine the profit planning premises adopted by NEA.
b) To observe the NEA's profit planning on the basis of overall managerial budgeting.
c) To analyze the variance between budgets and actual achievement of authority.
d) To recommend measure to be taken instantly and further to encounter with the identified budgeting and profit planning problems.

His Major Findings:

a) Electricity leakage, theft and wastage are on of the remarkable problem of NEA and it is reducing the profit earning capacity of the authority. Likewise this leakage has become the main reason behind the high gap between actual production and actual sales.

b) NEA's cash, bank balance, assets are not properly used. Due to this reason, liquidity, capital structure, turnover and profitability ratio are poor and weak year by year.

c) Over budget is not prepared in scientific and systematic way. All expenses are shown under only one overhead budget named as operation and maintenance expenditure budget.

d) The authority fails to analyze its strength and weakness in depth. Because of absence of the competitors, authority has become monopolistic concern and hence it is alert towards its possible threats and opportunities.

e) The authority has been facing some problems in profit planning system. Management is in the lack of adequate knowledge about the following facts: nature and content of profit planning, corporate planning, participate management, evaluation of broad and long-range objectives and co-ordination system in the organization.

His Major Recommendation:

a) NEA must restructure its capital structure and should emphasis the internal financing to minimize the burden of high interest in long-term loans. For this, it can share and can refund the debt.

b) Leakage of the electricity should be controlled. For this, meter reading and meter joining system should be improved. The most important aspect is to motivate its employees engaged in transmission and distribution line to control the leakage. Staffs who are themselves engaged should be strictly demoralized.

c) NEA should develop efficient system of revenue collection. It should make well defined rules and regulations in regard of revenue collection and if the customer of any category delays or denies, it should be charged penalty. In revenue collection, any kind of pressure nepotism and bias should strictly be undermined.

d) NEA should develop its overhead budget in a well classified and scientific way. All expenses related with production and purchase of power should be included indirect overhead or in manufacturing overhead and similarly administrative overhead and selling and distribution overhead should be classified systematically.

e) Cost volume profit relationship should be considered while formulating profit plan and the authority should be accustomed with flexible budget system.

f) To make profit planning system more progressive, the effective implementation of management system is very essential. And moreover, managerial involvement, organizational adoption, responsibility accounting, full communication, realistic expectations, time dimension, flexible application, behavioral view point and follow up programs should be made more effective productive and result-oriented.

2.8 Research Gap

All the research studies mentioned above are concerned with the study of Profit Planning System basically related to the Planning System of Nepalese public enterprises. The findings and the conclusions of all those studies are similar.

The conclusion of those researches is that there is no proper planning and controlling system in Nepalese public enterprises. Therefore, this study paper is designated to highlight the "Sales Budgeting in Profitability of Nepalese Public Enterprise". It means, the scope of the study is to find or identify the role played by sales budgeting that is being adopted or practiced currently by public enterprises increasing their efficiency. And on the other hand, for this study I have analyzed the efficiency thorough the volume of profit earned or profitability of NEA within the boundary of availability of data, which covers the period of five years data starting from F/Y 2061/062 to 2065/066. This study has attempted to identify the various causes of loss, analyze them and recommend practical suggestions to NEA.

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

Research means to search or study about a phenomenon. Generally research is an effort to search new fact, knowledge and principle in scientific ways. Research is the process of a systematic in –depth study or search of any particular topic, subject or area of investigation backed by the collection, complication, presentation and interpretation of relevant details or data. Methodology refers to the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind it. So that research methodology is a systematic way of conducting the research in an effective and practical so that it can explain how the research is done.

Therefore this chapter highlights the research methodology used for the study of "Sales Budget is the tools of profit planning in public enterprises". In this regard, this chapter explains not only talk of the research methods but also consider the logic behind the methods, which are used in the context of our research. This chapter consists of the research design, population, sampling procedure and sources and analysis of data.

3.2 Research Design

Research design is a plan or way for the study that give a direction for the collection and analysis of data. In other words, research design is the arrangement of collections and analysis of data in a systematic way. It is concerned with various steps to collect the data for analysis and procedures for acquiring the information including from which sources and by what procedure it is obtained.

This research is based on secondary data and primary data analysis. Hence, descriptive and analytical research design has been used to conduct the study of Sales Budget is the tools of profit planning in public enterprises. It deals with the sales budget on the basis of available information.

In this study, to show the relation of sales budgeting and profit planning and to fulfill the other objectives of this research, mainly following relevant research designs are adopted:-

1. Descriptive research design
2. Analytical research design
3. Case study research design
4. Historical research design

3.3 Nature and Sources of Data

In this study, mainly secondary data and some primary data will be used to fulfill the objectives of the study. The secondary data have been collected from the following main sources.

1. Annual reports of NEA
2. Profiles and magazines of NEA
3. Published and unpublished articles.
4. Media
5. Budget sheets of NEA
6. Previous studies made in this field

And some primary data have been collected from following sources:

1. Direct/Indirect personal or oral interview
2. Questionnaires, and
3. Other related sources

3.4 Period Covered

The study period covers the time period of five years from FY 2059/060 to FY 2064/65 B.S. for the purpose of analysis of short range sales budgeting and its affect on profitability. Data are taken from NEA are assumed to be correct or true. For the purpose of analysis both budgeted and actual data are used.

3.5 Research Variables

The research variables of the study are mainly related with sales and profit statement of time period. Budgeted and actual sales in Rs. and in units budgeted profit and actual profit in Rs. time period, import and export of electricity in units and Rs., power leakage: category-wise sales in units and in Rs. are the research variables of this study.

3.6 Research Tools Used

The collected data from various sources are managed to analyze and presented in proper tables, figures, format, graphs: such tables, figures format and graphs are interpreted, explained, concluded and recommended wherever necessary.

To analyze the collected data, statistical, financial, arithmetical tools such as variance analysis, mean, correlation, regression, time series analysis, graphs, percentage and ratio analysis are used.

3.7 Population and Sample

There are thirty eight public enterprises in Nepal.

- Nepal Timber Corporation
- Nepal Food Corporation
- Nepal Oil Corporation
- Nepal dairy Development Corporation
- Nepal Water Supply Corporation
- Nepal Industrial and Development Corporation

3.8 Research Procedure

The research procedure involves the following steps for present study.

- Analysis of data by using approved statistical and financial tools.
- Collection of various books, previous thesis and other publication relevant for the study.
- Assimilation of useful secondary data.
- Arrangement and presentation of data throughout table, chart, graph.
- Valuable conclusion and recommendation.

Among them I choose Nepal Electricity Authority to research for my subject because it is most valuable for our nation and it is my interested subject matter for my research study. Nepal is second richest country in water resources .NEA has monopoly business market in Nepal .I found NEA,s data easily than other corporation and it is main reason because without data the thesis was not complete. NEA opens the windows for private investor to invest in hydropower sector and it is going to partnership with private sector. What effect happens after privatization in case of NEA. Now a day's most of the foreign as well as Nepalese people highly interested to invest in hydropower sector for getting suitable return.

3.9 Research Questions

This research study is framed to seek the answers of following research questions:

1. Is there a sales budgeting practices and system in NEA?
2. What are the problems for sales budgeting in NEA?
3. What is the relation between sales budgeting and profit planning of NEA?

CHAPTER -IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The main objective of the study is to analyze the budgeted sales, actual sales and their effects on profitability of public enterprises. NEA is selected as a representative of public enterprises for this purpose. To accomplish these objectives, this chapter will state the sales budgeting system or practices and analyze the interrelationship of budgeted sales, actual sales and their effect on profit and loss of the authority.

Profit planning is the planning of revenues (i.e. increase the revenue) and planning of cost (i.e. increase the efficiency of cost). To ensure the victory over forthcoming risk, uncertainty, obstacles and other challenges related to the financial and operating activities, the application of profit plan is inevitable. An enterprise should prepare various plans or budgets for the proper comprehensive application of comprehensive profit planning and control. These are mainly three budgets i.e. operation budget (budget related with revenue and expenses). Financial budget (budget related with financial statements) and appropriation budget (budget related with advertising and research expenses). In other sense, budget may be related with revenue or cost (expenses).

Out of these categories of budgets, sales plan or budget is related with operation or revenue budget. Among of all budget, only sales budget concerns with revenue. Profit is also a part of revenue and the prime objective of a business enterprise is also to earn profit. Therefore sales plan must be made as the part of profit plan; profit plan also draws a road map for sales. Profit planning or budgeting starts with planning the sales or sales budget which is a formalized estimation of future sales revenue and sales volume. If sales plan is not realistic, rest of the parts of PPC will also not be realistic. If realistic sales plan cannot be developed, there is little justification for PPC. Therefore, it is said that sales plan provides basic information for the development of other elements of PPC. Mainly, two types of sales plans are developed to achieve an enterprise's sales objective. One is long-range (strategic) sales plan and the other is short-range (tactical) sales plan. Strategic sales plan is generally more than one year detailing by annual sales and tactical sales plan is used to plan sales for 12 months by quarters and by months for the first quarter. NEA has a practice of preparing both strategic and tactical sales plan and budget. But the main focus of the study is about the tactical (short-range) sales plan of Authority due to the resource and time constraint. For this purpose, budgeted sales and actual sales, its variation and the effects of sales on profit and other related and relevant figure in units and amounts of the study covered periods are also presented and analyzed to come in the decision about the main objective of the study. To seek the answers of the research questions in an easy way by considering time, resources or any other constraints, this study covers the period of five years from the fiscal year 2061/62 to 2065/66. Here different data and figures are presented and analyzed and some major findings have been pointed.

4.2 Sales Budget of NEA

4.2.1 Sales Budgeting System and Practices of NEA

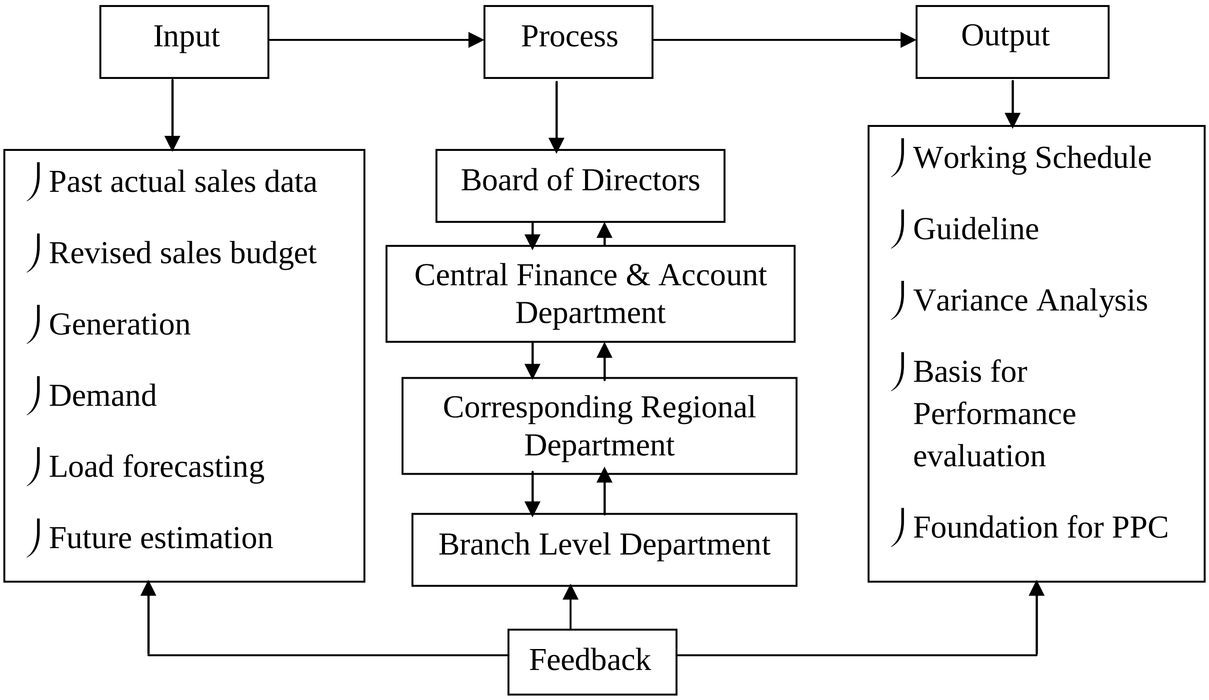
The starting point for developing overall budget procedure and a proper plan for reducing the clouds of risks and uncertainties is a sales budget. Also the sole source of revenue is sales. On the basis of sales budget, production budget is formulated. The budget depends upon the capacity of plant and all other functional budgets are prepared on the basis of production budget, therefore sales budget is the corner stone of the other budgets and a prime tool for profit planning in every type of business enterprises.

Nepalese public enterprises have the main objectives of socio-economic obligation. Social welfare is focused more than economic objective in Nepalese public enterprises like NEA, NTC, and NDWC. Moreover profit should be earned to fulfill their social obligation and profit is also a part of sales revenue. Therefore, sales budgeting are very important for public enterprise like other enterprises. Out of public enterprise for the study. NEA has long experience of preparing budgets since its establishments, 2042 B.S. First of all NEA prepares strategic or corporate sales plan and then tactical sales plan. Strategic or corporate sales plan is limited only in top level management and therefore this study only focuses tactical sales plan or budget of the Authority.

For the formulation and implementation of the participative approach of sales budgeting in NEA sales budgeting is originated from its lowest levels (i.e. 126 branches). These branches send required sales data, forecasted forthcoming sales trend and other relevant data to their corresponding department of regional office. Similarly, the department delivers these data to the central finance and account department of NEA. The central department formulates sales plan or budget. Such budget is based on past nine months' actual sales data plus forthcoming three months' revised sales plan, future public requirement, generation, export/import, budget policy, state of economy etc on incremental basis. After that, the department submits this sales plan or budget to board to board of director for approval. After approval of this plan, it will be ready for implementation. This process is continuing every year. Such type of sales budget system in NEA is pictured as below.

Figure 4.1

Sales Budgeting System



(Source: - Pandey, 1999: 292)

From above figure, it is obvious that budget committee (central finance and account department) formulates annual sales budget on the basis of past nine months' actual sales data plus forthcoming three months' revised sales budget, generation, demand, load forecasting, nature of consumer, corporate plan, state of the economy, budget policy and future scenario on incremental basis.

Budgeting process in NEA is two-way process: top-down and bottom-up. The formulation of objectives, strategies and approval of budget is in top-down (by senior to junior) process. The origination of past sales data, future estimation and trend is in bottom-up (by junior to senior) process. An appropriate sales budgeting system provides output for working schedules, guidelines, variance analysis, bases for performance evaluation and the foundation for other budgets of PPC. Therefore, it can be said that sales budget is prepared and implemented by maintaining co-ordination, harmony, assistance and approval with branches to Board of directors and board of directors to branch level.

4.2.2 Comparison and relation between Budgeted Sales and Actual Sales Achievement

Now, it is going to present the authority's previous sales performance and their budgets. To know about sales trend of past and to forecast possible future sales trend of the NEA. The following table presents the sales budget, actual sales and achievement in unit, in Rs. and in % from the fiscal year 2061/62 to 2065/66

Table 4.1

Sales Budget and Actual Achievement

FY	Units			Rs.'000'		
	Budgeted	Actual	Achievement (%)	Budgeted	Actual	Achievement (%)
2061/062	1906622	1800814	94.45	12825732	11992604	93.50
2062/063	1988850	1918350	96.45	13275383	12885974	97.06
2063/064	2145480	2028510	94.54	14260339	13672711	95.88
2064/065	2362342	2204202	93.30	15638122	14777260	94.50
2065/066	2421048	2348910	97.02	16220944	16060270	99.00
Total	10824342	10300786	95.16	72220520	69388819	96.08

Source:-Fiscal Year 2065/066 A year in Review, NEA and Income Statements

The table shows the budgeted and actual sales performance in unit, in Rs. amount and in percentage during the study period. In FY 2061/62, the budgeted sales was

1,906,622 thousand units. It started to increase and reached up to 2,421,048 thousand units in 2065/66. On the other hand actual sales was 1,800,814 thousand units in FY 2061/62which was 94.45% achievements. It also began to increase and reached to 2348910 thousand units in FY 2065/66 and average achievement is 95.16%. I t is concluded that actual sales units is lower than the targeted sales units during the study period.

A bit of deficit and fluctuation of sales achievement to target sales (in units) may be due to the lack of adequate knowledge about forecasting, low generation of electricity with the reasons of damages in many hydro-electricity generation points, power loss and so on.

Likewise, in FY 2061/62 the budgeted sales revenue was Rs.12,825,732 thousand. It begun to increase and reached to Rs.16,220,944 thousand in FY 2065/66. On the other hand the actual sale of electricity was Rs.11,992,604 thousand in FY 2061/66 and it was the 93.50% achievement. The actual sales revenue begun to increase and reached to Rs.16,060,270 thousand in FY 2065/66 and the achievement is 99%. Average achievement is 96.08% for the total study period. In totality, actual sales revenue is less than budgeted sales revenue due to the same reason like inadequate forecasting knowledge, destruction of hydro-electricity generation points, power loss and so on.
Also a fact seen in this table is that sales units achievements and sales revenue achievements are not always fully proportionate with each other due to changes in tariff rate, different voltage level used, category-wise sales shares and so on.

In order to find out the nature of variability of budgeted sales and actual sales for the study years, it is needed to calculate arithmetic mean, standard deviation, coefficient of variation of budgeted and actual figures of NEA for five years from FY 2061/62 to 2065/66. The detail calculations of these statistical tools are presented in appendix 1. The summarized results are presented below:-

Table 4.2

Summary of Mean, Standard Deviation and Coefficient of Variation

Statistical tools	Budgeted sales(x) Units in'000'	Actual sales(y) Units in'000'
Mean	2164868.4	2060157.2
S.D.	201332	196212.5
C.V.	9.30%	9.52%

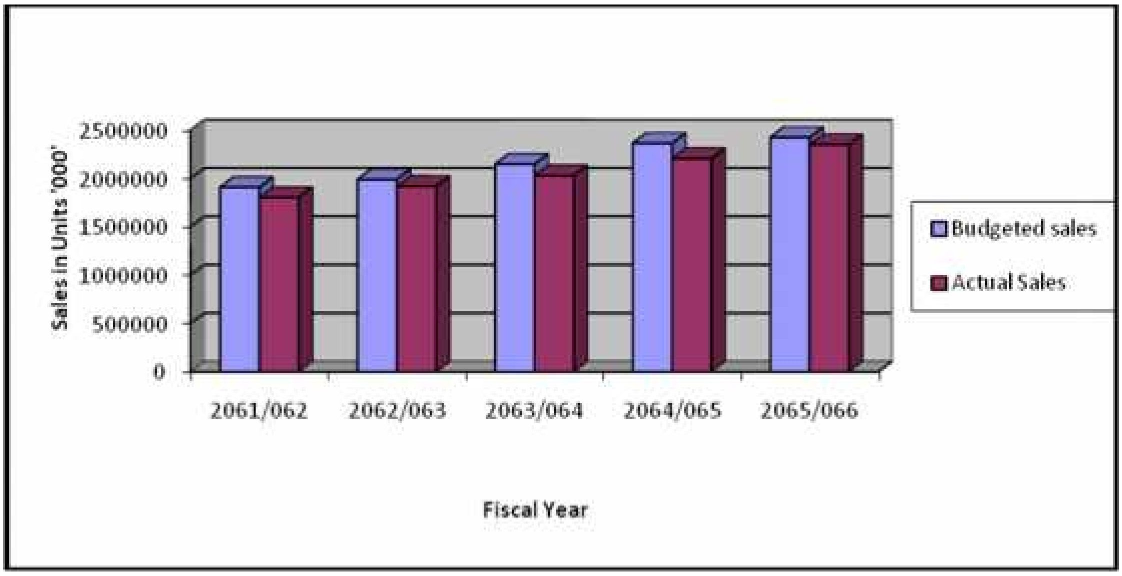
Source: Appendix 1

The above results show that the mean of actual sales is lower than budgeted sales (i.e. 2060157.2 thousand units<2164868.4 thousand units) the standard deviation of actual sales is lower than budgeted sales and coefficient of variance of actual sales is also higher than the coefficient of variance of budgeted sales. Higher coefficient of variation (CV) is the indication of more variable or less consistency and vice-versa. Therefore, above result show that actual sale is more variable than the budgeted sales. In other word, consistency of actual sales is less than that of budgeted sales.

The budgeted sales and actual sales can be exhibited in graphical forms as under:-

Figure 4.2

Budgeted Sales and Actual Sales



The above graphical presentation shows the actual sale is always less than budgeted sales is always less than budget sales throughout the study period. The small variation between budgeted sales and actual sales arise due to the variation in tariff rate destruction and damages of hydro power plants lines related branches and so on.

Another statistical tool coefficient of correlation can be applied in order to analyze the relationship between budgeted sales and actual sales. Moreover, the sales achievement increases as the increase in budget sales or vice versa. The Karl Pearson’s coefficient of correlation denoted by ‘r’ is applied in order to find out the correlation between budget and actual figures sales. It is examined that whether or not the actual sales will be changes in the same direction of change in budgeted sales.

The budgeted figures denoted by ‘X’ are assumed to be independent variables and actual figures denoted by ‘Y’ are assumed to be dependent variable in order to compute the ‘r’. The achievement will be large if the budgeted figures are large and vice versa. Then, the significant of ‘r; will be tested by positive error of ‘r’. The detail calculation of ‘r’ and probable error is presented in Appendix 1. From Appendix 1, the value of ‘r’ is 0.9870. The value of ‘r’ shows there is high degree of positive correlation between planned and actual sales since the value of ‘r’ is 0.9870. The correlation examination makes clear that the actual sales changes in same direction as the budgeted sales.

The significant of correlation ‘r’ is tested by the help of probable error (P.E.) of ‘r’ is 0.007782 and 6xP.E. Is 0.0467. Since correlation coefficient ‘r’ is greater than 6x probable error (6xPE) i.e. 0.9870>0.0077 82. The value of ‘r’ is definitely significant, it means the conclusion arrived from correlation coefficient is correct. Therefore it can be said that the actual sales is going on same direction that of planned sales.

Another statistical tool, a regression analysis, can be fitted to show how budgeted and actual sales are related and forecasts the possible actual sales with given planned sales. For this purpose, actual sales achievements have been assumed to be dependent upon budgeted sales. Let X and Y denote budgeted sales and actual sales respectively and then, we will find the regression equation of y on x (i.e. regression equation for actual sales related to budgeted sales). Let regression equation of y on x be.

$$Y - \bar{Y} = r \frac{\sigma Y}{\sigma X}(X - \bar{X})$$

We have the following value as calculated above:

Statistical tools	Budgeted Sales(x) units in ‘000’	Actual Sales(y) units in ‘000’
Mean	2164868.4	2060157.2
Standard Deviation	201332	196212.5
r_{xy}	0.9870	

From: Appendix 1

$$Y - \bar{Y} = r \frac{\sigma Y}{\sigma X}(X - \bar{X})$$

We have the following value as calculated above:

Then,

$$Y\text{-}2060157.2 = 0.9870 \times \frac{196212.5}{201332.2}(X - 2164868.4)$$

Or, Y-2060157.2=0.9870X-2082390.079

Or, Y=0.9870X-22232.8787

The expected value of Sales achievement

Y=0.9870 $\times$ 2523150-22232.8787

=2468116.171 thousands Units (approximately)

By the above regression equation, it is clear that actual sales is decreasing trend and the actual sales will be decreased more than planned sales. By the help of this equation, it can be as curtained that the expected achievement with given value of target sales say x, ascertain the expected sales achievement for figure of FY 2065/2066, 2,468,116.171 units in thousand.

If the relationship between budgeted sales and actual sales remain same as previous year, then achievement sales for the fiscal year 2065/66 will be units in '000'(approximately) as stated by the above regression equation.

Next statistical tool, a least square method, can be applied to analyze the trend of actual sales and to estimate the possible future sales of a given time. A straight line trend method shows the relationship between time or years and actual sales of the relevant year. Under this method, it is assumed that the sales is consistently changed (increase or decrease) with change in time and such change can be expected by component of time series. To fit the straight line trend, the time factor is considered as independent and sales is considered as dependent factor upon time. Then, the straight line trend of actual sales 'Y' upon time 'X' is expressed by:

$$Y_c = a+bx$$

Where,

Y = Actual Sales (dependent variable)

b = slope of trend line or annual rate of growth

a = y-intercept

x = time

Calculation of the straight line trend by least square method is as follows:

Table 4.3

Fitting Straight Line Trend by Least Square Method

FY	Actual sales(Y) in unit '000'	X	X^2	XY
2061/62	1800814	-2	4	-3601628
2062/63	1918350	-1	1	-1918350
2063/64	2028510	0	0	0
2064/65	2204202	1	1	2204202
2065/66	2348910	2	4	4697820
N=5	∑Y=10300786	∑X=0	$\sum X^2=10$	∑XY=1382044

In the above analysis, F/Y 2063/64 is assumed as base year. Therefore, the value of 'x' in F/Y 2063/64 is zero, negative before the base year and positive after fiscal year.

We have

Y_c = a+bx

By substituting the above values in straight line equation:

Where,

$$a = \frac{\Psi}{N} X \frac{10300786}{5} X 2060157.20 \text{ and}$$

$$b = \frac{XY}{X^2} X \frac{1382044}{10} X 138204.4$$

Then,

Y_c =2060157.20+138204.4X

=2060157.20+138204 | 3

=2474769 Thousand Units

By the result, if the trend does not change the positive sales for F/Y 2066/67 will be 2474769 Thousand Units.

This trend line (result) shows the positive sales figure for future. The sales will be increased by 138204.4 thousand units every year if the sales trend of the past years continues in the future. By the help of this trend line equation, the actual sales can be estimated for figure of F/Y 2066/67. The value of X for the F/Y 2065/66 will be 3 because base year is 2063/64.

To conclude the characteristics of sales figure (target and actual) of NEA, the following points can be pointed out:-

- There is highly positive correlation between budgeted sales and actual sales.
- The actual sales has neither touched nor crossed the target sales during the study period but it is near about the target sales.
- Actual sales are more variable than target sales.
- The regression equation shows that there is positive relationship between target sales and actual sales.

- The straight line trend shows the positive figure of sales for future.
- NEA has a practice of preparing short-range sales budget but long-range sales budget is not prepared in detail.

4.3 Relation between Sales and Profit

Profit is the excess of revenues over its costs. To increase the profit means to increase the revenue or reduce the cost by not cutting down the cost rather to increase the efficiency of costs. To earn maximum profit with optimum resource utilization is the main objective of any organization. So, profit is generally highly depends upon the sales turnover. The sales and profit (loss) of NEA is tabulated and analyzed as hereunder:

Table 4.4

Sales and Profit/Loss (in Rs.) from F/Y 2061/62 to 2065/66

F/Y	Budgeted sales (in Rs.000)	Budgeted profit (in Rs.000)	Actual sales (in Rs.000)	Actual profit (in Rs.000)
2061/62	12825732	(1110483)	11992604	(1486100)
2062/63	13275383	(1702138)	12885974	(1312800)
2063/64	14260339	(2030103)	13672711	(1267800)
2064/65	15638122	(1124641)	14777260	(314190)
2065/66	16220644	(1777921)	16060270	(1312160)
Total	72220520	(7745286)	69388819	(5693050)

Source:- A Year in Review, NEA, F/Y 2065/066 and Annual Income Statements

In the above table, budgeted sales, budgeted profit, actual sales and actual profit for the years taken for study period are presented. The relations between budgeted sales and actual sales have been already explained. Here, the relation between actual sales and actual profit and the relation between budgeted sales and budgeted profits are tabulated and explained under.

4.3.1 Budgeted Profit and Actual Profit

In case of profits, the planned profit and actual profit are not consistent with each other at all. This may be due to an inappropriate budgeting system and policy, an unpredictable series of damages in various hydro power stations and their related channels and offices. NEA has to invest large damages for making and repairing these damages and the total receivable revenue generated from the sales also can not be fully collected from customers. After these fiscal years study, NEA has became able to budget the profit considering forthcoming risks and obstacles to some extent therefore budgeted profit and actual profit have begun to relate positively in some degree. In conclusion, NEA has been felt in loss during the whole study period. In total, budgeted loss is less than actual loss. It is obvious from such data analysis, profit and cost budgeting and policy is not satisfactory. The authority should prepare appropriate systematic and scientific profit budget to materialize the budgeting figure to reality.

4.3.2 Actual Sales and Actual Profit

An appropriate systematic and scientific planned sales and profit helps to predict the sales and profit and assists to avoid the forthcoming risks and obstacles. In spite of so, actually actual profit can be only obtained from actual sales, therefore to realize the relationship between actual sales and actual profit should be more emphasized here:-

Table 4.5

Actual Sales and Profit

F/Y	Actual Sales in Rs. '000'	Actual profit in Rs. '000'	% of Sales
2061/62	11992604	(1486100)	12.39
2062\63	12885974	(1312800)	10.18
2063/64	13672711	(1267800)	9.27
2064/65	14777260	(314190)	2.12
2065/66	16060270	(1312160)	8.17

Source: - A Year in Review, NEA 2065/066 and Annual Budgets

The table 4.5 shows that the relation of actual sales and profit is not satisfactory as all. Actual sales are increasing during the whole study period but the authority has felt in loss during for these all period. In F/Y 2061/62 actual loss is 12.39%, in the same way in F/Y 20602/63, 2063/64 and 2064/65 actual loss is decreased, but in F/Y 2065/66, actual loss has begun to increase. As a whole, actual sales and actual profit is in opposite relation, it means the correlation between actual sales and actual profit of NEA of the study periods is r_{xy} = -0.6615 (approximately) in Appendix no.2.

Therefore, there is negative high degree correlation coefficient between actual sales and actual profit of the NEA. That is to say an increase in the sales revenue will decrease the profit of the authority.

The significant of correlation ‘r’ is tested by the help of probable error (P.E.) of ‘r’ and 6xP.E. is 6x 0.169643 = 1.0178. Since coefficient of correlation (r) is less than 6xP.E. (i.e -0.6615<1.0178). Thus the calculated correlation coefficient between actual sales and profit of the authority is very much unreliable or not significant at all. So, NEA needs to effort very hard to make it reliable.

Another statistical tool, coefficient of variation, is used to know about the variability or consistency between two variables here actual sales and actual profit as mentioned in Appendix no.2, CV of actual sales is 10.27% and CV of actual loss is -36.80%. Higher CV is said to be higher variable or less consistent and less CV is more consistent or less variable. Therefore, CV of actual loss is more variable than CV of actual sales due to higher fluctuation of actual loss than that of actual sales of every study years.

Next statistical tool, a regression analysis, can also be fitted to show the degree of relationship between actual sales and profit/loss of the Authority that helps to forecast the possible profit/loss from the actual sales. Here, profit/loss is assumed as dependent on actual sales.

For the purpose of regression analysis, arithmetic mean, standard deviation and coefficient of variation have been calculated and detail calculation of these variable is given in Appendix no. 2 and summarized results are tabulated as below:

Table 4.6

Summary of Mean, Standard Deviation, Coefficient of Variation and Correlation Coefficient

Statistical tools	Actual sales(X) in Rs. ‘000’	Actual profit(Y) in Rs. ‘000’
Mean	13877763.6	-1138610
Standard Deviation	1424917.4	418943.7
Coefficient of Variation	10.27%	-36.80%
Correlation coefficient	-0.6615	

Source: - Appendix 4

Computation of Regression line of profit on actual sales:

Aim: - To find the regression line of profit on actual sales.

X: - Actual sales (independent variable)

Y: - Profit (dependent variable)

$\bar{X}$: - Mean of actual sales

$\bar{Y}$: - Mean of actual profit

σ_x : - Standard deviation of X

σ_Y : - Standard deviation of Y

r $_{xy}$:- Correlation coefficient between actual sales and actual profit.

We have,

The regression line of profit (Y) on actual sales (X) is

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

Substituting the values from the above summary table, we get

$$Y - (-1138.61) = -0.6615 \times \frac{418.9437}{144.9174}(X - 13877.7636)$$

From the above regression equation the expected profit can be calculated from the given sales of the authority say, if X=15000000 for 2066/67. There will be profit and loss of Rs.1356.7728 million (approximately).

The expected profit:

Y= -0.1944 × 15000+1559.2272

=1356.7728 million (approximately)

By the above result, it can be seen that the actual profit decreases when actual sales increases and vice-versa.

To conclude the characteristics of sales and profit (actual sales and profit, budgeted sales and profit and budgeted profit and actual profit) of NEA, following points can be pointed out:

1. NEA has been bearing losses during the all fiscal years taken for the study.
2. There is high degree of negative correlation between actual sales and actual profit.
3. Actual profit is more variable or less consistent than actual sales.
4. The regression equation of profit on actual sales shows that there is very high negative relationship between actual sales and actual profit.
5. There is opposite relation between budgeted sales and budgeted profit also.
6. There is more than more variation between budgeted and actual profit.
7. There is a seemed unsystematic and unscientific budgeting practice of profit and cost in NEA.

4.4 Category-wise Sales of Electricity

NEA has been supplying its electricity to its customers by classifying various categories. NEA has classified its customers into twelve categories are as follows:

1. Domestic	7. Street Light
2. Non-commercial	8. Temporary Supply
3. Commercial	9. Transport
4. Industrial	10. Temple
5. Water Supply	11. Community Supply
6. Irrigation	13. Bulk Supply (India)

While preparing sales plan to achieve target sales and target profit, the emphasis needs to be given to the sales of electricity for different categories of customers because NEA imposes different tariff rate based on different categories and different voltage level. Generally, tariff rate are high in low voltage level and low in high voltage level. In case of category, expensive tariff rate is imposed in domestic, industrial, temporary supply is commercial, Non-commercial categories and it is cheap in water supply, irrigation, community sales and bulk supply (India) categories. The summarizing sales (in GWH) of each category are tabulated as below:-

Table 4.7

Category-Wise Electricity Sales (in GWH)

Categories	2061/62	%	2062/63	%	2063/64	%	2064/65	%	2065/66	%	Average
Domestic	676.37	37.55	758.19	38.60	805.72	39.64	893.27	40.5	951.84	40.52	817.078
Non-commercial	83.01	4.60	100.54	5.11	95.29	4.68	100.52	4.56	108.90	4.63	97.652
Commercial	108.12	6.00	109.31	5.56	120.30	5.91	141.69	6.42	159.37	6.78	127.758
Industrial	689.80	38.30	764.00	38.80	785.55	38.64	849.13	38.5	911.67	38.81	800.03
Water Supply & Irrigation	31.67	1.75	49.98	2.54	45.50	2.23	47.96	2.17	47.50	2.02	44.522
Street Light	55.20	3.06	54.86	2.79	63.24	3.11	66.90	3.03	72.58	3.08	62.556
Temporary Supply	0.25	0.01	0.39	0.02	0.87	0.04	1.26	0.05	0.70	0.03	0.694
Transport	5.47	0.30	5.80	0.30	5.65	0.27	6.31	0.28	6.03	0.25	5.852
Temple	4.11	0.22	4.58	2.33	4.77	0.23	4.78	0.21	5.37	0.22	4.722
Community Sales	5.28	0.29	6.03	0.30	9.18	0.45	15.51	0.70	23.45	0.99	11.95
Total (Internal Sales)	1659.58	92.15	1853.69	94.36	1936.07	95.25	2127.33	96.51	2287.41	97.38	1972.816
Bulk Supply (India)	141.23	7.84	110.70	5.63	96.55	4.75	76.87	3.48	61.50	2.61	97.37
Grand Total	1800.81	100	1964.39	100	2032.62	100	2204.2	100	2348.91	100	2070.186

Source: - A year in Review 2007/08

In the above table 4.7, the sales share in GWH for each category is presented. According to table, the sales share in GWH of domestic category is the largest of all categories i.e. 817.078 GWH and the least is temporary supply i.e. 0.694 GWH. In F/Y 2060/61, 37.55% electricity is used in this sector, likewise in F/Y 2062/63 38.60% electricity is used and it is increased to 40.52% in F/Y 2065/66. The sales shares of industrial, commercial, non-commercial, bulk supply(India), street light, water supply and irrigation, community sales, transport and temple are in second, third, fourth, fifth, sixth, seventh, eighth, ninth respectively. The sales in GWH of domestic, commercial, industrial and community sales are increasing and sales of remaining other categories are fluctuating during the study period. NEA has to do other many efforts to increase the sales share of those categories which have high tariff rate and high voltage level. Category-wise sales revenue (in Rs.) is more significant than category-wise sales units (in GWH). By considering this reality, category-wise sales revenue in Rs. is exhibited as below:-

Table 4.8

Category- Wise Electricity Sales Revenue

(in million Rs.)

Categories	2061/62	%	2062/63	%	2063/64	%	2064/65	%	2065/66	%	Aver age
Domestic	4578.99	38.18	5079.87	37.94	5405.12	38.58	6021.40	38.93	6396.3.7	39.82	5496.35
Non-commercial	816.01	6.80	947.12	7.07	881.73	6.30	940.20	6.07	1012.74	6.30	919.56
Commercial	986.07	8.22	1015.47	7.58	1118.21	7.98	1288.05	8.32	1448.16	9.01	1171.192
Industrial	4380.22	36.52	4851.40	36.23	4978.69	35.53	5300.91	34.27	5652.36	35.19	5032.716
Water Supply & Irrigation	154.80	1.30	239.97	1.80	197.96	1.41	214.18	1.38	212.98	1.32	203.978
Street Light	329.52	2.74	315.45	2.35	422.35	3.01	454.85	2.94	487.00	3.03	401.834
Temporary Supply	3.46	0.03	5.50	0.04	11.18	0.08	17.36	0.11	9.42	0.06	9.384
Transport	28.94	0.24	30.47	0.22	29.78	0.21	31.65	0.20	30.55	0.19	30.278
Temple	20.80	0.17	23.08	0.17	24.42	0.17	26.03	0.16	27.78	0.17	24.406
Community Sales	20.09	0.16	21.42	0.16	23.94	0.17	53.70	0.34	83.72	0.52	40.574
Total (Internal Sales)	11318.93	94.38	12529.75	93.58	13093.38	93.46	14348.33	92.77	15361.08	95.64	13330.294
Bulk Supply (India)	673.69	5.61	573.44	4.28	579.33	4.26	428.93	2.77	370.23	2.30	525.124
Gross Revenue	11992.61		13103.18	97.86	13672.71	97.72	14777.26	95.54	15731.31	97.94	13855.414
Net income from other source			285.86	2.13	336.09	2.40	689.08	4.45	328.96	2.04	409.9975
Total Revenue	11992.61	100	13389.04	100	14008.80	100	15466.34	100	16060.27	100	14183.412

Source: - A year in review 2065/066

The above table 4.8 presents the sales revenue of each category for the study period. The table shows that total sales revenue is increasing during the study period. The share of domestic category's sales revenue is the highest of all i.e. Rs.5496.35 million in average due to its higher tariff rate. The annual revenue collection of electricity in domestic sector in F/Y 2061/62 is 38.18% and it is increased to 39.82% in F/Y 2065/66. The industrial sales revenue is in second position i.e. Rs.5032.716 million in average and the least is the temporary supply i.e. Rs.9.384 million in average and it is in fluctuating trend. In F/Y 2061/62 only 0.03% is used in temporary supply, after that it is increasing and reached to 0.11% in F/Y 2064/65, but in F/Y 2065/66 it is decreased to 0.06%.

By the result of above analysis, it can be concluded that large sales share supply with high tariff rate can create the high revenue. That's why by completing many hydro-electricity project on time. NEA has to supply more electricity to the high revenue/profit generating categories and high voltage level to escape it from the series of losses.

4.5 Export and Import of Electricity

The export and import of electricity is also playing a role of majors for profit and loss of NEA. The Authority exports and imports electricity only form India and only to India. The export of electricity to India is less than the import from India. Therefore the income from export is also less than the payment for import. The summarized statement of export and import of electricity for the study period is presented below:-

Table 4.9

Export and Import of Electricity of NEA

(in GWH and Rs.)

FY	Export(in GWH)	Export (in million)	Import (in GWH)	Import (in million)	Variation between export and import (Rs. in million)
2061/62	141.235	673.691	186.675	1331.964	658.273
2062/63	110.70	573.44	241.389	1356.606	783.166
2063/64	96.555	579.333	266.23	1437.642	858.309
2064/65	76.87	428.93	328.83	2081.4939	1652.5639
2065/66	61.50	370.23	412.41	2227.014	1856.784
Total	486.86	2625.624	1435.534	8434.7199	5809.0959

Source: - A year in review 2065/066 and Annual Budgets

The above table reflects the figure of export and import of electricity in GWH and in Rs. (in million) during the study period. NEA has been enduring deficit of export in comparison to import since very beginning. Tariff rate of electricity for export and import is not so much consistent. Therefore the amount is not proportionate with the units. During the study period, exports (in GWH) are less than the imports (GWH). In total export is less than import by about 2.94 times. So, it can be concluded that the export of electricity (Both in GWH and Rs.) is less than the import of electricity (Both GWH and Rs.) and the deficit of export is in increasing trend that may creates loss to NEA to some extent.

Therefore, NEA is suggested to raise anyhow its export more than its import by utilizing its high electricity potential and wide potential market like India, China and so on.

4.6 Analysis of Some Particular Expenses

NEA has been suffering from loss due to its unpredictable weight of some expenses and inappropriate budgeting policy of those expenses. Some particular expenses are playing great role for inviting loss to NEA. These are mainly power purchase price, interest, repair and maintenance of damages and plants. Power purchase price, operation, repair and maintenance expenses are included under heading 'operation, repair and maintenance expenses' and interest expenses are mentioned under heading 'interest'. These expenses are tabulated as below:-

Table 4.10

Operation, Repair & Maintenance and Interest Expense

(Rs. in million)

FY	Operation, Repair & Maintenance Expenses	Change in Amount	Change in Percentage	Interest Expenses	Change in Amount	Change in Percentage
2061/62	8630.6	-	-	2991.50	-	-
2062/63	9569	938.40	9.80	3079.80	88.30	2.86
2063/64	10455.90	886.90	8.48	3050.90	(28.9)	(0.94)
2064/65	11348.54	892.64	7.86	2385.41	(665.49)	(27.90)
2065/66	12453.41	1104.87	8.87	2368.41	(17)	(0.71)
Total	52457.45	-	-	13876.02	-	-

Source: - A year in Review, NEA, F Y 2065/066

This table presents some particular expenses i.e. operating, repair and maintenance expenses and interest for the five fiscal years taken for study. In fiscal year 2061/62 the expenses is increased by 9.80%. In F/Y 2061/62 total expenses is 8630.60 million but in F/Y 2062/63 is only 9569. In F/Y 2063/64, 2064/65 and 2065/66 it is increased by 8.48%, 7.86% and 8.87% respectively.

As shown in table, 'operation, repair and maintenance expenses' is in increased trend. This is due to high payment for power purchase from foreign invested power sector like Bhotekoshi, Khimti etc., high repair and maintenance expenses for damages and for vehicles which used to be given mainly to unconcerned persons, new electrification expenses etc. A report said that power purchase from foreign invested sector at high rate per unit is a cause of the prime causes of loss.

On the other hand, the burden of interest expenses on loan is increasing trend. This is due to high interest rate and prepaid interest agreement with related parties. In F/Y 2061/62 interest expenses is 2991.50 million. In F/Y 2062/63 it is increased by 2.86%, after that it is decreased by 0.94%, 27.90% and 0.71% in F/Y 2063/64, 2064/65 and 2065/66 respectively. NEA has to pay interest of the loan for construction of the hydro-project ‘Kaligandaki A’ (144MW) and middle Marsyasndi (70MW) at 10% p.a. which is two times more than prevailing interest rate of market. And it also has to pay before construction of these projects. So overburden and pre-burden of interest expenses is one of the causes of loss of NEA. Therefore, NEA is suggested to utilize its own and public’s fund at low and soft interest rate as far as possible.

4.7 Analysis of Power Loss in NEA

Power loss has become a serious problem in NEA from the very beginning. This problem is one of the various causes for the decreasing profit or increasing losses. Power loss in NEA has two types: one is technical power loss (leakage) and another is non-technical power loss. Technical loss arises due to inappropriate and unsystematic installation of power points, plants, stations, transmission and distribution lines etc. And non-technical losses are created due to theft, meter damaging etc. The normal acceptance of power loss is considered up to 15% in developing countries where as the system loss of NEA is abnormally about to 25% of total gross generation. The top power loss is about 25.15% i.e. non-technical loss is about 12% and technical loss is about 8%. The major reasons of power loss in NEA are undeveloped, unsystematic and damaged distribution system, theft, misuses etc., these have increased the volume of power loss. The following table reflects the power loss situation of NEA for study periods.

Table 4.11

Power Loss Situation of NEA

(in units and Rs.)

FY	Power loss (in units ‘000’	% of loss of total power available	Average sales rate per unit (in Rs.)	Power loss amount (Rs.000)
2061/62	545,460	22.90	6.68	3,643,672.80
2062/63	656,160	24.83	6.81	4,468,449.60
2063/64	688,253	24.75	6.89	4,742,063.17
2064/65	761,151	24.94	7.01	53,351,668.51
2065/66	799,651	25.15	6.83	5,463,665.33
Total	345,0975	-	-	23,653,519.41

Source: - Annual Budget and a year in review, NEA 2007/08

The above table reveals that the power loss in NEA in term of unit, percentage and amount for the study years. The power loss and theirs average tariff rate is in increasing trend during the whole study period except F/Y 2065/66. By this analysis, it can be observed that the power loss is in climbing trend which has been losing it's a huge amount of operating profit for every year due to wastage of power. NEA is striving for its loss reduction since its existence but a lot of efforts have to be done to improve further. The station, sub-station, plant, transmission and distribution lines are to be refurbished, modernized to reduce the technical losses and regarding the non-technical losses, much improvement can be achieved with small investment. On the one hand, the concerning staffs i.e. technicians, meter readers, ledger keepers should be good trained, motivated and given good incentives. Of course this must be correlated with the acquired output. On the other hand, an awareness campaign about loss reduction is to be massively launched with the consumers. Social and economical ostracism to theft and pilferage cases must be induced and also a feeling of responsiveness and ownership is a must. Therefore, NEA must do appropriate and systematic efforts to reduce the power loss which will increase the profit by blocking the losses.

4.8 Financial Statement Analysis

Financial statement analysis is an act of assessing financial strengths and weakness of the enterprises through the meaningful search of information contained in financial statements. Various ratios are used to analyze the financial aspects. Ratio is the arithmetical or quantitative relationship between two items or two groups of particular item in financial statements. Here, this relationship guides to improve the drawbacks of authority comparing the ratios with their normal standard and the ratios of percentage.

Table 4.12

Ratio of NEA

Particulars	2061/62	2062/63	2063/64	2064/65	2065/66	Average
Current ratio	0.56:1	0.50:1	0.47:1	0.46:1	0.44:1	0.48:1
Quick ratio	0.50:1	0.42:1	0.40:1	0.39:1	0.38:1	0.41:1
Capital turnover Ratio	0.2108	0.2086	0.2081	0.2088	0.2052	0.2081times
Inventory turnover ratio	6.55	6.16	6.11	6.33	6.58	6.34times
Debtor turnover ratio	3.33	3.39	3.42	3.12	2.58	3.11times
Average collection period	108dyas	106days	105days	115days	140days	113days
Fixed asset turnover ratio	0.19	0.18	0.17	0.18	0.17	0.18times
Total asset turnover ratio	0.17	0.16	0.16	0.15	0.16	0.16times
Gross profit margin	43.02%	40.80%	37.50%	37.47%	35.54%	38.63%
Net profit ratio	-14.02%	-10.41%	-9.51%	2.17%	-8.51%	-7.88%
Return on net worth	-9.66%	-6.51%	-5.48%	1.19%	-4.62%	-1.25%
Return on total assets	2.13%	2.28%	2.13%	2.93%	1.04%	2.07%

Source: - Appendix 3

4.8.1 Liquidity Ratio

Liquidity ratios are the ratios that provide the quick measure of liquidity position or the ability of the firm to meet its current obligation. In other words, liquidity ratios are the indicator of short-term solvency or financial strength of the firm. The most common ratios are under this group are comprised as follows:-

- **Current Ratio**

Current ratio establishes the relationship between current assets and current liabilities. Current ratio of NEA seems week during the all fiscal years for study period. It is below than the standard norm i.e.2:1.

- **Quick Ratio**

It is the ratio of quick assets to current liabilities. The quick ratio of the NEA is also less as compared to the standard norm of 1:1 during the all study years. Due to the weak liquidation position. NEA is not able to pay its obligation on time.

4.8.2. Activity/ Turnover Ratio

Activity/turnover ratio measures the relationship between sales and assets or capital. The ratio reflects that how efficiency an enterprise has been managing its available resources. Generally, the greater ratio indicates the better performance and vice-versa. For the purpose of efficient and prudent performance measurement, only some selected ratios have been taken in this context.

- **Capital Employed Turnover Ratio**

This ratio measures the efficiency of an enterprise in the utilization of permanent source of capital. It establishes a relationship between net sales and capital employed. Generally, higher the ratio, the more efficient of management and optimum capital utilization. This ratio of NEA is very less for whole study period.

- **Inventory Turnover Ratio**

This ratio establishes a relationship between cost of goods sold and average inventory. Inventory turnover ratio indicates the enterprise’s ability to turn inventory into sales or cash. This ratio is fluctuating in first three fiscal years and in last two years, it is in increasing trend.

- **Debtors Turnover Ratio**

It is used to determine the efficiency with which the debtors are managed. Unless it is excessively high, higher ratio is preferable than lower ratio but the debtor turnover ratio of NEA is in decreasing trend as it reflects poor management of debtors or decreasing trend as it reflects poor management of debtors or receivables.

- **Average Collection Period**

Average collection period is a measure of time taken to collect cash from customers from the date of sales. In other words, this ratio measures the quality of debtors. It is obtained by dividing sales by average debtors. A shorter period or given acceptable period is preferable but the average collection period of NEA is increasing up to 140 days. It reflects collection policy or collection situation is not good for study periods.

- **Fixed Assets Turnover Ratio**

It examines how efficiency and effectively fixed assets are being utilized by the enterprise. This ratio is obtained by dividing net sales revenue by net fixed assets. Higher the fixed assets turnover ratio, more efficient the management but this ratio of

NEA is very low (i.e. only up to 0.19 times) during the all study periods. Therefore NEA's ability of generating sales per rupee in fixed assets is not satisfactory at all.

- **Total Assets Turnover Ratio**

It is used to examine the relationship between sales revenue and total assets. It measures the efficiency of enterprises in utilizing its total available assets for sales promotion. A greater ratio is the sign of good performance of well managed the available resource and vice-versa if there is lower ratio. This ratio in NEA is very low(i.e. only up to 0.17 times). In beginning two years, it is increasing and in last three years, it is constant as 0.15 times. Therefore, NEA has been failed to generate adequate sales by proper utilizing of total assets for all study period.

4.8.3 Profitability Ratios

Profitability ratio measures the profit position of the enterprises. It indicates the overall efficiency and effectiveness of the enterprises. Normally, high ratio is indication of efficient where as low ratio is the signal of danger. Some major ratios indicative of authority's performance are as follows:

- **Gross Profit Ratio**

Gross profit ratio measures the relationship between Gross profit and sales. Gross profit margin of NEA is in fluctuating 35.54% up to 43.02% during the study periods. These margins have not able to bear indirect expenses for any study period.

- **Net Profit Ratio**

Net profit ratio is the relationship between profit and sales. This indicates the portion of Net profit out of net sales; higher net profit margin indicates the management's ability to operate business successfully. Net profit margin of NEA is in negative and fluctuating trend during the fiscal years taken for the study. This indicates the poor management ability of NEA to operate an enterprise successfully.

- **Return on Net Worth**

It is the ratio of net profit after tax to net worth or shareholders fund. Higher ratio reflects the more profitability enjoyed by the shareholders, where as poor or lower ratio reflects the reverse situation due to its negative profit. This analysis indicates the return on total assets is vast lower or negative performance of the Authority. This ratio is very low or in negative situation.

- **Return on Total Assets**

It is a profitability ratio that sets the relationship between net profit and total assets. It is used to measure the net profit before interest and tax against the amount invested in total assets to ascertain whether the assets are being utilized properly without any misuse. The result shows this ratio, is very low (i.e. 2.13% to 2.93%) due to very low net profit before interest and tax and improper utilization of investment in total assets.

By analyzing financial statement of NEA, it can be concluded that almost ratio of the NEA is very poor due to the increasing negative profit, improper utilization of long-term and short-term assets, fund, capital and soon. So NEA have been failed to attain the targeted goals in almost of all aspects. Therefore NEA is suggested to utilize its assets and fund to uplift the favorable financial strengths.

4.9 Major Findings

This research on the topic of ‘sales budgeting as the tool of profit planning in public enterprises: A case study of NEA’ is prepared on the basis of mainly secondary data and some primary data. This study has collected data from the sources like direct personal interview, indirect oral interview, information from local correspondents, published sources, unpublished sources etc.

After analyzing the collected data, it is found that NEA is suffering from losses during the all study periods due to a number of internal and external problems, obstacles, compulsions and accidents. The majors among them are unsystematic budgeting policy of cost and profit, insufficiency of cost budget, high power purchase price, repairs and maintenance cost for the series of damage in hydro power stations and branches, interest, royalty. Low tariff rate and deficit of export of electricity, power loss and wastage, load shedding improper utilization of assets, capital and liabilities, increasing exchanges rate of USA and Euro dollar, delay in the completion of hydro-electricity projects etc.

The major findings of the study on the basis of collected and analysis of data are presented as below:-

- NEA has a practice of preparing both strategic(long-range) and tactical(short-range) profit plan. But the strategic plan is limited only to the top level executives.
- NEA has its own system and practices of budgeting.
- NEA prepares almost all of the necessary budgets such as operation budget, financial budget, appropriation budget and NEA has been suffering from series of losses since last half decade.
- The NEA's sales achievement has neither touched nor crossed the target sales during the study period. The sales achievement during five fiscal year is about 93% of target sales in average and, the sales is increasing every year.
- There is a high degree of positive correlation between planned sales and actual sales i.e. 0.99% approximately. It means actual sales changes in the same direction and in about the same speed of the planned sales.
- The C.V. and S.D. of actual sales are different comparison to planned sales. It indicates that actual sales are more variable than the budgeted sales.
- NEA has been suffering form loss since last half decade. It's loss is in increasing trend.
- The actual profit of NEA has a very high degree of negative correlation with actual sales i.e. -0.6615 approximately, therefore an increase in sales decreases the profit of Authority. The reasons may be due to inability and insufficiency of NEA to increase the efficiency of costs by considering forthcoming risks, power leakage, wastage etc.
- The actual profit of NEA has also very opposite relation with its target profit due to improper cost and profit budgeting system and policy.
- The tariff rate of electricity is imposed on the basis of different category and voltage level.
- Tariff rate of electricity is high in domestic, non-commercial, commercial and temporary supply but it is cheap in water supply, irrigation community sales, transport and bulk supply (India) categories.
- Category-wise sales analysis of NEA shows that the sales share (in GWH) of electricity of domestic, industrial, bulk supply (India) and commercial

categories is high and sales share (in GWH) of community sales, temporary supply is low. The sales revenue of electricity (in Rs.) of ‘domestic’ category is the highest and the least is in the ‘transport’ category.

- NEA exports and imports electricity only from India and only to India. The export of electricity is less than the import of electricity and the export tariff rate is also less than the import tariff rate of electricity.
- Some particular expenses like purchase price of electricity, operation, repair and maintenance expenses, interest, royalty expenses etc are increasing and have created the situation of increasing loss of NEA.
- Repair and maintenance expenses are highly increasing mainly due to a series of damages in hydro-electricity and improper use and record of vehicles.
- NEA is paying more than 65% of its revenue only for purchase price of electricity from foreign invested power sectors, interest and royalty expenses.
- Power loss in NEA is about one-fourth of its total power available. This power loss is about 15% more than normal acceptance.
- In rainy season, NEA cannot sell its all generated electricity due to high production and creates the situation of power wastage, but in winter season, low level and slow flow of river and rivulets create the low production of electricity and invite the condition of load shedding.
- By the financial statement analysis, it is observed that all the necessary ratios like liquidity, turnover, profitability etc are lower or weaker than standard norm and they will be weak year by year.
- NEA has facing regular loss because of unsystematic budgeting policy of cost and profit, improper utilization of assets, capital and liabilities, overload and pre-load of interest, purchase price, royalty repair and maintenance cost, a series of damages of hydro-points, power loss and wastage, increasing rate of US and Euro dollar, delay in completion of projects etc.

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Nepal is the second richest country in water resource however it has been facing great problem of load shedding for a long time because of poor economic condition to invest in hydro power. It is exercising mixed economic policy for upgrading its economic and social prosperity. Such policy creates the co-existence of private and public sector. Despite the establishments of many private enterprises, they are only slopped to generate profit and ignore social welfare. The public enterprises are emerged not only for commercial purposes but also for public welfare like infrastructure development, public utilities, industrial bases development, and proper utilization/mobilization of natural resources and so on and it is also important to provide better goods/services to the general public at reasonable price. So, the role of PEs in developing countries like Nepal is inevitable for socio-economic development of people, enterprises and the nation.

It is a well-known fact that primary objectives of public enterprises are to generate economic return and to provide social services. These both objectives are interlinked with each other. The long-term economic return cannot be achieved standing against the society and without economic return, also the social welfare cannot be provided. But the most of the public enterprises are suffering from losses year by year due to unclear, inappropriate and unsystematic budgeting policy of revenue and cost. The public enterprises are also unable to plan the revenue and to utilize the cost efficiently and effectively due to the lack of knowledge about revenue planning, controlling and for-seeing the forthcoming risks and obstacles. The latest management technique ‘Profit Planning and Control’ can assist the enterprises to increase the chance of making profit, to increase the efficiency of cost and an only appropriate and systematic sales budget can build the foundation for PPC.

Profit is the excess of revenue over its cost. To increase the profit means, therefore, to increase the revenue or reduce the cost by not cutting down the cost rather to increase the efficiency of cost. To learn to maximize the profit by running the organization in much efficient way is the sole goal of the study of PPC. To maximize the profit with the use of optimum resources is the basic objective of any enterprises. Profit planning and control is the only latest management technique, which can be used to achieve the targeted objectives and to run management efficiently. It is the systematic and continuous process to attain the objectives of the enterprises for certain period of time. In other words, the process of preparing and using budgets, to achieve management objectives is called budgeting or profit planning and control. Profit planning can be studied by categorizing its strategic or long-term planning and tactical or short-term planning.

Profit planning or budgeting techniques start with planning the sales or sales budgeting that is an estimation of the future sales revenue and sales volume. All budgets except sales budget are related with cost. On the basis of sales budgets, production budget or planning is made. This planning also depends on the capacity of the plant. And all their functional budgets are prepared on the basis of the production budget. It means the sales budget is directly or indirectly must be made from profit plan for profit plan. So it can reduce the cloud of uncertainty and risk of future revenue, cost and present investment. Therefore, sales budgeting are the foundation or a prime tool for profit planning in every type of business enterprises including public enterprises.

In the context of the research on the title "Sales budgeting as the tool of profit planning in public enterprises". Nepal Electricity Authority (NEA) is selected as a representative enterprise of public enterprises for the study. NEA is the largest and leading public utility enterprise and also a full government owned enterprise with full monopoly market in Nepal, was formed on 1st Bhadra, *2042 B.S.* The main purpose of NEA is to provide electricity service to its customers at an affordable price. It is also responsible for making, generation, transmission and distribution of electricity throughout the kingdom of Nepal. NEA has been able to develop the total installed capacity of 653 MW only which is less than 1% of potential capacity.

NEA has been suffering from loss since last half decade due to the various problems like unscientific and inappropriate budgeting practices, system, polices, over load of high purchase price, interest, royalty, repair and maintenance expenses, other expenses, power loss and wastage, improper utilization of assets capital and fund, delay in the completion of hydro-electricity projects, increasing value of US and Euro dollar. NEA must consider about past trends and experiences, present condition, future possibilities and obstacles to plan the forthcoming sales, cost and profit. Without proper plan, targeted sales revenue, controlled cost and desired profit of NEA cannot be secured. Therefore, only sales budget which is prepared by considering all relevant factors, only can work as a prime tool for profit planning in the enterprises like NEA and in other words, profit plan cannot be pronounced without effective formulation, practice and implementation of appropriate, scientific, broad and systematic sales plan.

The present study has mainly focused on sales budgeting system, practices, trend and it affects on profitability in public enterprise with fully reference to NEA. The study has tried to analyze the relation between sales and profit. It has also tried to analysis the category-wise sales share, export-import condition, some particular items expenses, power loss and wastage, ratio analysis and analysis of other relevant articles and matters about the causes of losses of long period. The scope of study is limited for the micro level analysis. The five fiscal years (2061/62 to 2065/66) trends of data have been analyzed and examined.

Mainly secondary data and some primary data have been used. Descriptive research design, analytical research design, case study research design and historical research design are applied, and statistical, accounting, arithmetical and financial tools like parentage, ratio, graph, mean, standard deviation, variation, correlation, regression analysis and straight line trend have been used to analyze the data.

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

5.2 Conclusions

Conclusions those have derived from this study are enumerated as hereunder:-

- NEA's internal insufficiency, weakness, problems, national political condition etc. have symbolized the more possibility of increasing loss of NEA for the coming years if such condition continues in the future. A long with there will be also a ray of possibility of NEA, if its internal and external conditions improve in future.
- Power loss in NEA is about one-fourth of its total power available which is about 15% more than normal acceptance.
- NEA is a largest, leading and full government owned public utility enterprise with full monopoly market in Nepal.
- NEA has been practicing of preparing budgets or plans since it's establishing but, up to now, it is not fully able to prepare systematic, scientific and appropriate budgets by considering relevant factors, polices and ideas.
- NEA prepares both tactical (short-range) and strategic (long-range) profit but strategic plan is confined only to top level executives.
- Sales budgeting practices in NEA are developed on system approach to some extent. NEA's budget is prepared on the basis of past nine month's actual sales data plus forthcoming three months' revised sales plan and its generation capacity on incremental basis.
- NEA's sales achievement has never touched and succeeded the planned sales during the study period. However, all the sales achievements are very near to target sales. Therefore, its sales plan is not so much unsatisfactory.
- A bit of deficit of sales achievement to target sales may be due to lack of adequate knowledge about forecasting to some extent and low generation of electricity with the reason of damages in many hydro-electricity generation points.
- NEA's both actual and target sales are in increasing trend in both units and revenue during the study period. So, such trend is considered as favorable for the enterprises.
- NEA has a high degree of positive correlation coefficient between planned sales and actual sales i.e. 099(approximately). It means actual sales changes in

same direction as the changes in budgeted sales. Other statistical tools C.V. and S.D. of actual sales are more variable than the budgeted sales. The next statistical tools regression equation and least square line of sales show that sales will be positive and high in future if the present sales trend continues in the future.

- There is very high degree of negative correlation between actual sales and profit i.e. -0.6615. It means actual profit changes in very opposite direction of changes in actual sales. The relations between budgeted sales and budgeted profit, actual sales and actual profit are also in very reverse direction.
- The regression education line has concluded that the loss of NEA increases in the future if the present trend continues in the future.
- NEA has been suffering from loss since last half decade and it is also increasing year by year due to its inability of budgeting and utilizing costs, assets, royalty, repair and maintenance expenses, power loss and wastage etc.
- Some particular expenses like purchase price of electricity from foreign invested sector, operation, repair and maintenance expenses, interest royalty are increasing every year. These expenses are playing major role for creating loss to NEA. A report has said that 55% of its total revenue is only applied for purchasing electricity from foreign invested power sectors and sales it's to public at loss. Such type of practices may depth the loss of NEA. It means sole revenue is budgeted systematically but costs/expenses are not budgeted systematically and scientifically.
- NEA imposes different tariff rate based on different category and different voltage level. Tariff rate is expensive in temporary supply, domestic, industrial, commercial, non-commercial and cheap in water supply, irrigation, community sales and bulk supply (India) categories.
- The sales share of electricity (in Rs. and units) for high income generating categories like industrial, domestic is high and it is least in community sales and temporary supply.
- NEA exports electricity to India is less than the import from India. And also the export tariff rate is less than import tariff rate of electricity.
- Power loss in NEA is about one-forth of its total power available which is about 15% more than normal acceptance.

- In rainy season, NEA cannot sell its all produced electricity due to high production and creates the situation of power wastage but in winter season; slow flow and low level of water, rivers and rivulets create low generation of electricity and invite the condition of load shedding.
- Profit planning and control has two side, one is revenue planning and other is cost planning. It these both are planned properly, profit will be automatically planned. In NEA, sales (revenues) are planned systematically and negligently. Such lame practice of profit planning and control also depth the losses.
- NEA can reach or across the BEP neither by reducing the production/sales volume nor by rising these volume. The causes of losses are unsystematic and unscientific budgeting practice of costs and expenses, purchase price, interest, royalty, repair and maintenance, expenses, power loss and wastage, export-import, exchange rate, delay in completion and so on.
- NEA's internal insufficiency, weakness, problems, national political condition etc. have symbolized the more possibility of increasing loss of NEA for the coming years if such condition continues in the future. A long with there will be also a ray of possibility of NEA, if its internal and external conditions improve in future.

5.3 Recommendations

Based on research study on topic of "Sales budgeting as the tool of profit planning in public enterprises: A case study of NEA," the following suggestions are recommended in this part to develop the mechanism of sales budgeting as a part of profit planning, to improve the budgeting system and practices of revenue and cost, also may help to the NEA to get ride of long series of losses and also assist to generate reasonable profit:-

- Load shedding is the greatest problem in Nepal so that, the authority should try to avoid this problem by investing huge amount in hydro power. NEA's planners should be properly trained about budgeting of cost and revenue or new planners should be hired for adopting the profit planning and control mechanism in a better way.
- There should be effective management in generation and distribution of electricity to meet target sales. Likewise, NEA should prepare realistic sales

plan more than now on the basis of realistic forecasting demand determinants, such as family income, price and generation, electricity connection charges, cost of alternative power, cost of auto-generation, damages and reliability of NEA.

- A systematic approach to both comprehensive sales planning and cost/expenses planning are essential. NEA should be able to plan sales and cost by considering relevant factors, policies and ideas which can contribute to remove the loss and generate the profit of NEA.
- NEA has been suffering from huge amount of loss due to the prime cause obligatory purchase agreement made with foreign investors such as Khimti and Bhotekoshi projects. NEA should avoid such type of obligatory purchase agreement. Likewise, NEA should give emphasis on domestic projects invested by its own, local and government investors.
- There should be continuous and complete flow of necessary information among various level of management, employees and workers. The goals, objectives and strategies of the enterprise should be carefully communicated to lower level of management.
- NEA should try to increase the sales volume and should reduce the power purchase. It can be done reducing power leakage and wastage, establishing new plants and increasing the capacity utilization.
- The NEA should have deep analysis of its strengths and weaknesses. It should try to overcome the weakness by applying its strengths.
- NEA should effort to supply more electricity to the high revenue/profit generating categories such as domestic, industrial, temporary supply, commercial and non-commercial. Tariff rate for water supply and irrigation, transport service, street light, bulk supply to India, temples should be revised in such a way by which NEA could cover operating cost at least.
- NEA should equalize the tariff rate of export and import, and it is also suggested to NEA, any how to raise its export more than import by utilizing its high electricity potential and potential market like dark part of Nepal, China, India and so on.
- NEA should reduce the long-tem loan having high interest rate by utilizing its own fund and other sectors fund at cheap interest rate as far as possible. As a result of reducing expenses invites the possibility of profit. NEA

should complete its projects so that they will return to repay long-term loan on time.

- NEA is suggested to invest in small hydro projects to ensure profitability because such projects do not require much fund and they start to provide return on investment faster and such projects can also attract private sector for investment.
- Government of Nepal should revise about the royalty amount because high royalty expenses seem also a cause of loss to NEA.
- NEA should prepare and hire skilled technicians for repair and maintenance of damaged plants and projects because there expenses are also causes of loss to NEA.
- Power leakage and loss of electricity should be properly controlled. For this purpose, meter reading and joining system, transmission and distribution line should be refurbished and modernized. Good incentives and motivational factors should be given to the technicians and staffs, also awareness about loss and leakage reduction should be launched and economical and punishable measures also can be induced to reduce the losses which may increase profits by controlling the losses.
- Effective measures like adequate storage of water, quick completion of other hydro-projects on time, seasonal high tariff rate should be imposed by NEA to avoid the problem of load shedding in winter season and cheap tariff rate and more export to foreign country should be done to avoid the problem of over-wastage of power in rainy season.
- NEA should increase current assets and decrease current liability to maintain the standard norm of liquidity ratio or sound liquidity management and also should utilize capital and fund properly and generate the more sales revenue for sound capital turnover ratio.
- NEA should increase sales revenue and should adopt tight collection policy to collect account receivables on time for the increment of inventory turnover ratio and for decreasing the average collection period.
- NEA should utilize its all assets properly specially its expensive vehicles should not be provided to political parties and other unconcerned persons. Also it should be recorded all assets properly for making sound assets turnover ratio.

- NEA should increase the efficiency of costs and expenses along with increasing sales revenue and then profit can increase gradually. As a result, profitability ratio will be also climbed.
- NEA firstly should uplift the efficiency of cost and expenses and only then sales volume should be increased to achieve BEP.
- NEA should invest the available resources properly and it should also consider cost-benefit ratio in investment selection process.
- NEA should be ready to reduce operating cost up to possible extent. The cost reduction is assumed as a measure to increase the volume of profit. Optimum and sufficient staffing concept also should be followed by NEA.
- NEA should maintain its period performance reports systematically and also should take corrective action if necessary.
- The employee productivity is very low so it should be improve as soon as possible. For avoiding this problem, NEA should motivate its employee by providing financial and non financial rewards as well as involving in decision making and other activities.
- The NEA should make the policy to motivate Nepalese and foreign investor to invest in big hydropower, so that NEA can provide electricity facility to all the people of our country.