

CHAPTER - I

INTRODUCTION

1.1 Background of the Study

Nepal Electricity Authority, a full government undertaken public utility enterprise, was formed on 1st, Bhadra 2042 BS (1985 AD) amalgamating with the department of electricity, Nepal Electricity Corporation and number of other related departments operate according to the provision of NEA act 2041 BS. The central office of NEA is in Kathmandu. On the basis of organization expansion, number of its staffs, its assets and investment, and areas of its power supply works, NEA is the largest public utility enterprise in Nepal. It has established its branch offices, distribution sectors, power houses; grid houses in all over the kingdom are about 200. About 10000 staffs are presently employed here. The main purpose of NEA 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.

NEA presently serves 1,060,700 customers (a growth of about 9.28% over that of the previous Fiscal Year) across all the 75 districts of the country. Electricity supply is provided through ten medium-sized and forty small hydropower plants owned by NEA and ten hydropower plants owned by IPPs. Besides, four diesel and two multi-fuel thermal power plants under the ownership of NEA also cater to the demand. In terms of installed capacity of NEA's integrated grid, hydroelectric power accounts for 549.553 MW (including 147.083 MW under private ownership) and thermal power, 56.69 MW. During the time of deficit, power up to 50 MW is imported from India as per the Indo-Nepal Power Exchange Agreement. Nepal and India have agreed in principle to increase this level of exchange from the existing 50 to 150 MW. Nepal is also entitled to 70 million units of energy annually from Tanakpur in the far west under the Mahakali Treaty and 10 MW power according to Koshi contract. Although the integrated grid has a total of 549.553 MW installed hydropower capacity, only about 459.861 MW can be generated from hydropower stations during the winter season when the power demand is at its peak.

In the area of transmission and sub-transmission of electricity, the NEA system has grown into a network of more than 1565 km of 132 kV, more than 420 km of 66 kV and around 2500 km of 33 KV power lines. Distribution and customer services are provided with lines around 8000 km of 11 kV (source: GIS maps, NEUS-2000 Report). In keeping with the HMGN policy of extending electricity services to the district headquarters, all the headquarters of the 75 districts of the country are provided with electricity. The remaining areas are being progressively electrified. In order to accelerate the pace of expansion and conduct management of rural distribution systems in a sustainable manner, NEA has adopted a concept of community participation in rural electrification schemes. The overwhelming response from user groups and cooperatives to NEA's invitation for proposals on operating the distribution system by the community themselves has led to 80 agreements already in place.

NEA continues to be the sole purchaser of IPP's power production. To date, twenty six (26) PPAs totalling 216.047 MW have been concluded, of which 147.083 MW have already been commissioned. Out of the 16 IPP projects for which PPAs are concluded, 14 projects are expected to be commissioned by FY 2007/08 resulting in augmentation of generation capability by 58.764 MW. Another 36 requests for PPAs amounting to 81.031 MW of power are under scrutiny.

To remedy the inherent weakness associated with these fragmented electricity organisations with overlapping and duplication of works, merger of these individual organisations became necessary to achieve efficiency and reliable service.

1.2 Role of Public Enterprises in Nepal

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 enterprises, half or more than half of total shares are owned by government. In Nepal, public enterprises are established with the fund of Nepal Government or with the help of financial assistance of international agencies or foreign countries. Public enterprises are established not only for commercial purpose but also for public welfare and thus are strong means of socio-economic development of the nation.

Standing on that fundament, public enterprises have to maintain proper balance between profit and service.

Mainly the exploitation of consumers and workers, necessity of developing infrastructure, defence structure, utilization of natural resources and unemployment condition of the nation compels the government to establish public enterprises. “When we see the history of PEs, we find that most of them well created by the government themselves to manage certain key sectors of the economy” (*Joshi, 2002: 1*).

Nepal is a land locked country is one of the least developed countries of the world with poor economic condition. It has an area of 147181 square kilometres, length of 885 kilometres from east to west and average breadth about 193 kilometres from north to south. More than 30% of people are living below poverty line. Per capita income of Nepal is about \$ 400, GDP growth rate is around 3.7% and it has also fluctuation trend. More than 80% of people still depend on agriculture 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 achieving the twins’ objectives of social and economic development, envisaged in national level policy. Mainly, the role of PEs has been in basic infrastructure, defence sector, industrial states, public utilities, commercial sector, trading and baking 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 fulfil 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, enterprise and the nation. No nation in the world is without public enterprises.

Though, almost Nepalese PEs have been suffering from regular operation loss according to the past annual budgets and economic surveys of the various projects. They are unable to generate substantial return from their investment and at last to contribution to the nation through dividend as well as tax. They are creating a huge amount of liabilities as well as being the financial burden to the government and thus after the restoration of Democracy, the government has adopted the policy of privatization. During the eight five year plan, the industrial act 2049 was enforced and equally, privatization took place.

1.3 Nepal Electricity Authority (NEA)

Nepal is one of the richest countries in natural resources of the world. It has various natural resources. Hydro-electricity potential is one of them. It 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 83000 megawatts of hydropower, of which approximately 42000 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 had developed its first hydropower station 'Pharling' in 1911 AD and since then till 2006/07, Nepal has been able to develop total installed capacity of 689.355mw or 689355kw only, which is nominal of total potential capacity. Though, Nepal Electricity Authority is heading towards to electrify over the kingdom of Nepal.

Nepal Electricity Authority is only one enterprise which supplies electricity with monopoly that is a basic need of people as well as countries. Therefore its capital also should be in large number that is Rs 28414.99 millions in the year of 2008 which is derived from Rs 26382.18 millions at 2007. In case of shareholders equity, NEA has

been increasing share capital but other effecting factors of shareholders fund is negative since 2003 and it is in decreasing ward since 2002. Now NEA has negative 'Reserve and Accumulated Profit' by Rs 6114.88 millions.

In the Nepalese context, NEA has some responsibilities these are as follows:

- to recommend to His Majesty's Government, long and short-term plans and policies in the power sector;
- to recommend, determine and realize tariff structure for electricity consumption with prior approval of GoN;
- To arrange for training and study so as to produce skilled manpower in generation, transmission, distribution and other sectors.

For maintaining these mentioned responsibilities, NEA sets the following objectives. The primary objective of NEA is to generate, transmit and distribute adequate, reliable and affordable power by planning, constructing, operating and maintaining all generation, transmission and distribution facilities in Nepal's power system both interconnected and isolated.

1.4 Statement of the Problem

The development of a country depends upon the proper exploitation of the available resources. In Nepal there are various public enterprises established in many sectors to utilize the resources for the overall development of the country with effective goal and objectives, but majority of the public Enterprises have not been able to operate their activities without loan grant and donation from the foreign government and donor agencies because of their poor financial performance. Many public enterprises prepare their long and short range plans on the adhoc basic. The main causes of the failure of such PEs are the lack of integration of activities, less utilization of capacity and lack of motivated skilled manpower.

While talking about the utilization of electricity, we find only about 22% of the total population have access to it, that's too mainly in urban and in some pockets of the rural area. The majority of population who has access can not afford to use electricity even for cooking, heating etc. because of high per unit production cost. They depend

on indigenous sources of energy as forest, agriculture residue, animal waste and imported petroleum products. The high rate of deforestation and huge amount of investment in petroleum products are continuously deteriorating the environment and economy of the country. The radical change in climate is damaging the country annually from disaster in forms of flood, landslides and draught etc. The government is making efforts to tackle the problem.

NEA, the major leading public Enterprise functioning in public utility sector has not been able to generate and supply electricity to rural areas. It has not completed many projects yet. Corruption and inefficient management system in it have interfered in achieving its objectives moreover; no enterprise can survive without profit and competitive market. The success or failure of any enterprises is measured on the basis of profitability or say surplus. The profit depends on the systematic budgeting and financial performance. Standing on that ground, this research intends to explore the following problems:

- Which process of managerial budgeting applying by NEA?
- What are the main problems facing by NEA in developing and implementing the managerial budgets?
- Is budgeting effective?
- What are the fundamental principles adopted by NEA in long term and short term profit planning?
- How is budgeting related to profitability and performance of company?

Budgeting is 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 through budgeting, desired profit can not be secured and that makes PEs fiscal burden to the government. The various types of budget are used for the planning of profit, and comparing with the actual achievement by using different tools such as cost volume profit analysis, variance analysis etc. Standing on that context, this study will mainly focus on the different types of functional budgets and corporate planning practices and its effects on profitability of NEA.

1.5 Objectives of the Study

The main objective of the study is to analyze the budgeting of NEA and its impact on actual performance and profitability. The specified objectives of the study are as follows:

- To analyze the various budget of NEA
- To analyze the true picture of budgeting adopted by NEA.
- To analyze the variance between budget and actual achievements of the authority.
- To analyze the correlation and its coefficient between Sales and other income statement variable.

1.6 Significance of the Study

Budgeting is the key of financial planning and control. Profit is the essence of any business organization. Business organization can and equally shall not run with out profit. This study will be completely concentrated to assess the profitability of power center by analyzing various budgets prepared at different levels. Profit is lifeblood of any enterprise which doesn't happen all of sudden. Profits are managed when a management plans its activities. It is a part of overall planning process of an organization. The process of preparing budget to achieve management objective is called budgeting.

Till date we are facing the problem in using the scarce resource efficiently due to the poor profit plan. In order to rectify this, the concerned authorities and enterprises should be aware and make proper plan for future. It will help the organization to define how far the plan has conformity with the objective of profit maximization. The foregoing information can be a basis to identify the strengths and weakness of the organization in term of profitability.

Profit is the most indicators in judging managerial efficiency. No organization can exist without profit which happens through the efficient application of various types of budgets. So, it is necessary to analyze the various types of budgets for comprehensive profit planning. This study is concentrated to analyze and examine the budget as a tool of increasing efficiency of Nepal Electricity Authority.

Mainly, this study will be useful and beneficial to following group and individuals:

- Major stakeholders who are interested to the budgeting practices of NEA.
- NEA itself to improve or restructure the entire system or practice of budgeting.
- Board of directors and management body of NEA and,
- Researchers to do further research in the same field.

1.7 Limitations of the Study

The study will be confined within the detailed analysis of various functional budgets and its relation with profitability of NEA. The following factors have limited the scope of the study:

- This study covers only last five fiscal years data from 2060/061 to 2064/065.
- This study will be concerned on budgetary system and its effect on comprehensive profit planning of NEA. Thus it will 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.

1.8 Organization of the Study

The entire study will be designed into five main chapters. They are:

Chapter I:- Introduction

It is an initial phase of the thesis that includes general introduction, a brief review of NEA, focus of the study, statement of the problem, significance, objectives and limitations of the study.

Chapter II:- Review of Literature

This chapter includes two main aspects; conceptual framework and review of related study. The conceptual framework includes fundamental concept and component of budgeting. It mainly deals with theoretical analysis and briefly reviews the concept related to the study and also deals with literature review of previous research works done in budgeting of NEA and research gap of the studies.

Chapter III:- Research Methodology

This chapter reveals the methodology adopted in carrying out the research work. It includes introduction, research design, sources and nature of data, period covered, research variables, research tools used and research questions for the study.

Chapter IV:- Data Presentation and Analysis

It will be concerned with the presentation and analysis of data that has been collected through various sources. It will mainly consist of interpretation and analysis of data with the help of various analytical tools and techniques and major findings regarding the study will also be included.

Chapter V: - Summary, Conclusion and Recommendations

This chapter includes summary and conclusions of the study and also recommends some suggestions and measures to solve the present shortcomings regarding comprehensive budgeting of NEA.

CHAPTER - II

REVIEW OF LITERATURE

To make meaningful research study, the conceptual review has been done through the study of various books and articles. In addition, references have been drawn from former researches including Master thesis dissertation papers. So, this study 'literature review' has been divided into the following two sections.

- A. Conceptual framework
- B. Review of previous study

2.1 Conceptual Framework

2.1.1 Concept of Budgeting

Budget is not only a detailed annualized account of the company's estimated income and expenditure; it is also a document that provides guidance and direction to the overall economy of the company. Comprehensive profit planning and control (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 and acts as signal light to and for the management, which enables the management to correct its policy and to show its direction for achieving maximum result within a definite period. It consist three main budgets:

- Operation budget (budget related with revenue and expenses)
- Financial budget (budget related with financial statements)
- Appropriation budget (budget related with advertising and research expenses)

Budgeting is viewed as a systematic and formal approach or process designed to help management for preparing significant phases of the management and control functions. Specifically, it involves: -

- The development and application of broad and long range objective for the enterprises.
- The specification of enterprise goals.
- The development of profit plan with assigning responsibilities.
- A system of periodic performance reports detailed by assigned responsibilities and,
- Follow up procedure.

Budgeting is a component of overall planning procedure of an organization. The managerial process and profit planning are interrelated to each other. Success of management always depends on well plan.

Budgeting is a tool, which may be used by the management in planning the future course of action and controlling the actual performance because it is a written plan in which all aspects of business operation concerned with future period are included. Budgeting is a predetermined detail plan of action developed and distributed as guide to current operation and a partial basis for the subsequent evaluation of performance.

The primary aim of budgeting is to assess in assuring the procurement of the profit planned and to provide a guide for assisting in establishing the financial control policies including fixed assets additions, inventories and the cash position. The adoption of a correctly constructed profit plan provision provide opportunity for a regular and systematic analysis of incurred or anticipated expenses, organized future planning fixing of responsibilities and stimulation of effort. In short it provides a tool for more effective supervision of individual operations and practical administration of the business as a whole.

2.1.2 Concept of Profit

Every business enterprises hold their own objectives. The primary objective of an enterprise is to generate profit with bearing social responsibilities. These two parts are

interlinked with each other. Without economic contribution, social service cannot be provided. Also the long-term objective, in simple term let say profit, cannot be achieved through standing against the society. Mean while the self survival, growth and continuity of the organization totally depends upon the degree of its profit.

Profit is the ultimate goal of every business organization. But the 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-determined goals or objectives. It gives the basis for PPC.

“Profit is the primary objective of a business. In view of the heavy investment which is necessary for the success of most enterprises, profit lies the accounting sense, tends to become along term objectives, which measure not only the success of a product but also of the development of the market for it. The word profit implies a comparison of the operation of business between two specific dates, which are usually separated by an interval of one year. In order to optimize those corporate source of wealth on which national prosperity depend, the basic financial objectives of companies is to maximize, *with in socially acceptable limits*, profit from the use of the fund employed by them. No company can survive long without profit for; profit is the ultimate measure of its effectiveness, and in a capitalist society, there is no future for a private enterprise which always incurs losses. Profit is a signal for the allocation of resources and a yardstick for judging managerial efficiency. In fact, it is the growth of profit which enables a firm to pay higher dividend to its ordinary share holder. Profit result from transaction. Profit is the dominant goal in business, and profit making should be the main objectives in term of which the general effectiveness of an organization is measured” (*Kulkarni; 1992: 310-311*).

“Profit is the primary measure of business success in any economy. The effective operation of a business concern resulting into the excess of income over expenditure fully depends upon the extent the management follows a proper planning, effective coordination and dynamic control. This requires that the management plans for future financial and physical requirements for productivity and profitability of the business concern. The procedure for preparing a plan in respect of future financial and physical requirements is generally called budgeting. The primary purpose of budgeting in business is to increase the chance of making profit” (*Bajravharya; 2005: 344*).

“Profit is the income received by the organizer. It is the reward for the services of an entrepreneur. A firm makes profit when it receive a surplus after it has paid interest on capital, wage to labor which equal to the difference between the total revenue and total cost of production. Profit earned by the entrepreneur may be broadly divided into two categories viz. the gross profit and net profit. Gross profit of the entrepreneur refers to whole of the income earned by him. It consists of the reward for the factors of production supplied by the organizer himself, reward for management and reward for the organization of production” (*Chitrakar & Devkota; 2004:331*).

“Profits are the excess of income over cost of production. The expenses made on raw material, labour, interest, fuel, power are included in cost. There is controversy as to the definition of the term profit itself. Ordinarily, the term profit is defined in terms of accounting concept. According to accounting definition “profit is the residual of sales revenue minus the explicit cost of doing business.” This profit is the amount available for ownership or equity after payment is made to all other factors used by the firm. J.M. Keynes held the view that profits resulted from favourable movement of the general price level. Mr. John Robinson Chamberlin opined that greater the degree of monopoly power, the greater the profits made by the entrepreneur.” (*Joshi; 2004: 276 & 277*).

Hence, profit is the amount after deducting cost from revenue. It determines from cost and revenue. Every business enterprise makes an investment of a huge amount with taking a higher degree of risk and thus they expect higher rate of return and so we can say that profit is the reward against risk and innovation. As we earlier said that the prime objective of business enterprise is to generate profit, the first consideration of

managerial budgeting or say budgeting must start from profit plan. To attain planned profit, a comprehensive budget should be made properly. It reduces the clouds of uncertainty and removes the risks over investment and future revenue. Therefore, budgeting is the foundation or a prime tool for profit planning in every type of business enterprises including Nepalese Public Enterprises too.

2.1.3 Concept of Planning

In translating goals and objectives into success, the specific activities, sufficient resources and their proper management are required, which is called planning. Every organization shall develop three types of plan, short, intermediate and long term. Managers at every level of management perform planning. It is a decision in advance for what to do, when to do, how to do and who will do the particular tasks. Thus, it is an intellectual process, which involves looking ahead and preparing for the future. Generally, planning involves the following steps. (a) Determining the objectives (b) Formulating policies, procedure and programs (c) Scheduling (d) Budgeting.

According to R. Robbins “planning in the modern jargon involves government control of production in some form or others.” Likewise, according to At Bert Waterson “planning is an organized, conscious and continual attempt to select the best available alternatives to achieve specific goal. It has been used for variety of end, by different societies and in different ways.”

Thus, it is the process of developing objectives and selecting a future course of action to accomplish them. It includes:

- Establishing enterprises objective.
- Developing premises about the environment in which they are to be accomplished.
- Selecting a course of action for accomplishing the objectives.
- Initiating activities necessary to translate plans into actions.
- Current re planning to correct current deficiencies.

2.1.4 Concept of Profit Planning

Profit planning is viewed as a process designed to help management effectively perform significant phases of the planning and controlling function. It is defined as a

systematic and formalizes approach for preparing signification phase of the management planning and control functions. Specifically, it involved: -

1. The development and application of broad and long range objective for the enterprises,
2. The specification of enterprise goals,
3. A long range profit plan develop in broad term,
4. A short range profit plan detailed by assigned responsibilities,
5. A system of periodic performance reports detailed by assigned responsibilities and,
6. Follows up procedure.

Profit planning is a component of overall planning process of an organization when a management plans its profit performance that is known as profit planning. The managerial process and profit planning are interrelated to each other. Success of management is always depended on well planning.

“Profit planning in fact is a managerial technique and profit plan is such a written plan in which all aspect of business operation with respect to definite future period is included. It is a formal statement of policy plan objectives and goal established by the top management in respect of some future period profit planning is pre determined detailed plan of action developed and distribution as guide to current operation and as a partial basis for the subsequent evaluation of performance. Thus we can say that profit planning is a tool which may be used by the management in planning the future course of action and controlling the actual performance” (*Gupta; 1992: 521*).

The primary aim of Profit planning is to assets in assuring the procurement of the profit planned and to provide a guide for assisting in establishing the financial control policies including fixed assets additions inventories and the cash position. The adoption of a correctly constructed profit plan provision provide opportunity for a regular an systematic analysis of incurred or anticipated expenses, organized future planning fixing of responsibilities and stimulation of effort. In short it provides a tool for more effective supervision of individual operations and practical administration of the business as a whole.

Profit planning is a comprehensive plan expressed in financial term by which an operations program is effective for a given period of time it includes the estimated of

- a. The services activities and project comprising the program.
- b. The resultant usable for their support.

2.1.5 Fundamental Concept of Profit Planning and Controlling

Basically, “fundamental of budgeting concerned effective implementation of the management process in resources by complex endeavours. It desires management orientations activities and approaches necessary for proficient and sophisticated application of comprehensive PPC. The fundamental needs to be established on a sound foundation of managerial commitment” (*Welsch, Hilton and Gordon; 2006: 31*).

Some important fundamentals are as follows;

2.1.5.1 Organization Adaptation

A budgeting or PPC program must rest upon a sound organization structure for the enterprise and clear cut line of authority and responsibility. The purpose of organization structure and the assignment of authority are to establish a framework within which enterprise objectives may be attained in a coordinated and effective way on a continuing basis. The scope and interrelationship of the responsibilities of each individual manager are specified. To increase managerial and operational efficiency, practically all enterprise, except perhaps the very smallest ones, should be structurally disaggregated into organization subunits. Thus, the company as a whole is a responsibility center, as is each division, department, and sales district. Responsibility center are further classed in respect to the extent of responsibility as follows:-

1. Cost center
2. Revenue center
3. Profit center
4. Investment center

2.1.5.2 Responsibility Accounting

“Effective budgeting system must be set up the sound basis responsibility accounting system or program because historical information, separately for each organizational unit, that is by assigned authority and responsibility. PPC requires to organizational

responsibilities. A responsibility accounting system can design and implemented on a relevant basis regardless of the other features of the direct costing system and so on. Within this primary revenues and other financial data that are relevant may be utilized in accordance with needs of the enterprise” (*Welsch, Hilton and Gordon; 2006: 36*).

Every planning will be made with the help of historical data supplied by accounting department and controlling will be made by evaluating both actual and budgeted data. Therefore, accounting system of any enterprise should be built around the responsibility accounting. So, budgeting programs find it necessary to analyze with a consequent reorganization of the system on a responsibility accounting.

2.1.5.3 Full Communication

“Communication is process of exchanging ideas, emotion, information and facts between two or more persons. It is also a transfer of meaning and understanding two or more people through verbal and non verbal means. It is one of the important functions of management. A manager has to make necessary communication to his subordinates to implement plan and get feedback about the performance” (*Pokheral, et.al.; 2009: 230*).

Budgeting can be done only with more effective communication network in an enterprise. Full communication means, each unit of the organization or enterprise can be familiar with goal and objective. Communication can be of dialogue, message or understanding from working together. Although, in practice the management gives least importance to communication, it is most important thing for the observation and control of an organization.

For budgeting, effective communications means development of well defined objective, specification of goals, development of profit plan and reporting and follow up activities related to performance evaluation for each responsibility center.

2.1.5.4 Realistic Expectation

In budgeting or PPC, expectation must be realistic and avoid being either mainly conservations or irrationally optimistic. The care with which budget goal are set for such items as sales, production levels, cost, capital expenditures, cash flow and

productivity determines the usefulness of a budgeting program. For budgeting or PPC purposes, enterprise objective and specific budget goal should represent realistic expectations. To be realistic expectation must be related (1) to their specific time dimension and (2) to on assumed external environment that will prevail during that time span. Within these two constraints, realistic expectation should assume a high level of overall efficiency; however, the objective this and goal should be attainable.

2.1.5.5 Flexible Application

“Profit planning and control program or any managerial tools must not dominate a business that flexibility in implementations trait jackets any plans, there must be a forthright management “over-ride” policy so that “are not imposed and at favorable opportunities are seized even though, they are covered by the budget” (*Welsch, Hilton and Gordon; 2006: 51*).

Budgeting program or any other management techniques should not be dominated by the management. Such techniques of management must be flexible. These are the techniques, which is not only 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 against investment and for this purpose managerial budgeting or other techniques are to be used as mean only.

2.1.5.6 Activity Costing

Responsibility accounting system generally accumulates costs by department, and product costing systems associate costs with unites of product or services. Organizations also frequently find it useful to associate cost with activities. By decomposing as organization’s production process into a discrete set of activities, and them association costs with each of those activities management is in a better position to determine the costs and benefit of continuing the activities.

2.1.5.7 Zero- Base Budgeting

Zero base budgeting is constructed on the premise that every activity in the budget must be justified. It starts with the basic premise that the budget for next year is zero and that every expenditure, old and new, must be justified on the basis of its cost and benefit. The discipline of zero base budgeting takes a different approach in fact, a

reverse approach to this problem of justifying everything. What it says is this: begin with where you are and establish a business as usual budget for next year the same way and the same thing you would do if you weren't concerned about constraint and total justification.

2.1.6 Establishing the Foundation for Budgeting or Planning

To establish sound foundation for initiating a budgeting program, the following steps should be followed:-

Step 1: “There must be commitment by the top management to the broad concept of budgeting or PPC and a sophisticated understanding of its implication and operations” (*Welsch, Hilton and Gordon; 2006:59*).

Step 2: “The characteristics of the enterprise and the environment in which it operates including the controllable and uncontrollable variables must be identified and evaluated so that relevant decisions may be made over the characteristics of a budgeting or PPC program that would be effective and practical” (*Welsch, Hilton and Gordon; 2006:59*).

Step 3: “There should be an evaluation of the organization structure and assignment of managerial responsibility and implementation of changes deemed necessary for effective planning and control” (*Welsch, Hilton and Gordon; 2006:59*).

Step 4: “There must be evaluation and reorganization of the accounting system to ensure that it is tailored to the organization responsibilities so that it can provide data particularly useful for planning and control purpose” (*Welsch, Hilton and Gordon; 2006:59*).

Step 5: “A policy determinations must be made about the time dimensions to be used for managerial budgeting or PPC purposes” (*Welsch, Hilton and Gordon; 2006:59*).

Step 6: “A program of budget education should be developed to inform management at all levels about (a) the purpose of the program; (b) the manager in which it will operate, including the basic management policies and guidelines for the

administration; (c) the responsibility of each level of management in the program; and (d) the ways in which the program can facilitate the performance of each manager's function" (*Welsch, Hilton and Gordon; 2006:59*).

2.1.6.1 Characteristics of Good Budgeting

The characteristics of good budgeting are as follows:-

- "Budgeting may be formulated for the organization as a whole as for any subunit.
- A good system of accounting is also essential to make the budgeting useful.
- A budgeting is a quantitative expression of a plan of action and aid to coordination and implementation.
- A good budgeting system should involve persons at different levels while preparing the budgets; the subordination should not feel only imposition on term.
- Budgets are designed to carry out a variety of function planning, evaluating activities and implementation" (*Rathman; 1974:21- 22*).

2.1.6.2 Objectives of Good Budgeting

The main objectives of good budgeting are as follows:-

- To state the firm's goal in clear formal term to avoid confusion & facilitates their attainability.
- To communicate expectation to all concerned with the management to the firm so that they are understood support and implemented.
- To provide a detailed plan of actions for reducing uncertainly and for its proper direction of individual and group efforts to achieve goal.
- To co-ordinate the activities and effort in such a way that the use of resources maximized.
- To provide a means of measuring and controlling the performance of individual and nit and to supply information based on which the corrective action can be taken.

2.1.6.3 Advantages of Good Budgeting

The main advantages of good budgeting are as follows:-

- It forces early consideration over basic policies.

- It requires adequate and sound organization structure: that is, there must be a defined assignment of responsibility for each function of the enterprises.
- It compels all members of management, from top to bottom, to participate in the establishment of goal and plans.
- It requires adequate and appropriate historical accounting data.
- It instills at all level of management the habit of timely, careful, and adequate consideration of the relevant factors before reaching important decision.
- It reduces cost by increasing the span of control because fewer supervisors are needed.
- It tends to remove the uncertainty that exists in man organizations, especially among lower levels of management, relative to basic policies and enterprises objectives.
- It pinpoints efficiency and inefficiency.
- It forces management to give adequate attention to the effect of general business conditions.
- It forces recognition and corrective action.
- It reward high performance and seek to correct unfavorable performance.

2.1.6.4 Disadvantages and Limitations of Good Budgeting

The main disadvantages of good budgeting are as follows:-

- It is difficult, if not impossible, to estimate revenues and expenses in our company realistically.
- It is not realistic to write out and distribute our goals, policies, and guidelines to all the supervision.
- It creates all kinds of behavioral problem.
- It adds a level of complexity that is not needed.
- It is too costly, aside from management time.
- The manager, supervision, and other employees hate budget

2.1.6.5 Components of Planning or Budgeting

The components of budgeting can be mentioned as follows:

- The Substantive Plan
- The financial plan

- Variable Expenses Budget
- Supplementary Data
- Performance Reports and
- Follow –up

2.1.7 Process of Budgeting or Planning

The budgeting process should involve periodic consistent and depth re planning so that all aspect of operation are carefully reexamined and re-evaluated. This prevents a budget planning approach that involves only justification of increases over the prior period. The concept of revaluation and the necessity to justify all aspect of the plan periodically finds its strongest support in what has been called zero base budgeting.

2.1.7.1 Identification and Evaluation of External Variable

Management planning must focus on how to manipulate the controllable variables. Moreover, there must be managerial planning of how to work with the non controllable variables. That is for both kinds of variable, how can management take advantage of potential favorable impacts and minimize potential unfavorable impacts and minimize potential unfavorable impacts on the enterprise? By relevant variable we mean those that will have a direct and significant impact on the enterprise.

“A particularly, significant phase of this analysis includes an evaluation of the present strength and weakness of the enterprise. Planning must necessarily status with on objective and returns understanding of the present status of products, service, market, profit and returns on investment cash flow, availability of capital, productive capabilities, and the competence of both management and non management personnel” (*Welsch, Hilton and Gordon; 2006:75*).

2.1.7.2 Development of Broad Objective of the Enterprise

Development of the broad objective of the enterprise is a responsibility of executive management. Based on a realistic evaluation of the relevant variable and an assessment of the strengths and weakness of the organization, executive management can specify or restate this phase of the managerial budgeting.

2.1.7.3 Development of Specific Goal for the Enterprise

“The primary purpose of the “goal phase” of the PPC or managerial budgeting process is to bring the statement of broad objective into sharper focus and to generate more specific planning information from the realm of general information. It provides both narrative and quantitative goals that are definite and measurable” (*Welsch, Hilton and Gordon; 2006:77*).

It should be developed by executive management as the second component of the substantive plan for the upcoming budget year. These are specific goals that relate to the enterprise as a whole and to the major responsibility centers.

2.1.7.4 Development and Evaluation of Company Strategies

Company strategies are the basic ways and tactics that will be used to achieve planned objective and goal. A particular strategy may be of short term or long term. The purpose of developing and disseminating enterprise strategies is to find the best alternative for attaining the planned broad objectives and specific goals. Executive management must be creative and directly involve in the development of new strategies that focus on “how” and thus which outline a plan of action for the enterprise.

2.1.7.5 Executive Management Planning Instructions

“The executive planning instruction, issued by top management, communicates the planning foundation that is necessary for the participation of all levels of management in the development of the strategic and tactical profit plan for the upcoming budget year. Executive leadership is fundamental in developing and articulating this planning foundation including the formulation of relevant strategies” (*Welsch, Hilton and Gordon; 2006: 79*).

2.1.7.6 Preparation and Evaluation of Project Plan

“Project plan encompass variable time horizon because each project has a unique time dimension. Project plans encompass such item as plans for improvement of present product, new and expanded physical facilities, and entrance into new industries, exit from products and industries, new technology and other major activities that can be separately identified for planning purposes. The nature of project is such that they

must be planned as separate units. During the formal planning cycles management must evaluate and decide upon the plan status of each project in process and select any new projective to be initiated during time dimensions converted by the upcoming strategic and tactical profit plan” (*Welsch, Hilton and Gordon; 2006: 79*).

2.1.7.7 Development and Approval of Strategic and Tactical Profit Plan

The strategic long range and tactical short range profit plans normally should be developed concurrently for all practical purpose and that the executives in charge of each of the responsibility centers throughout the firm should participate in their development in harmony with planning premises. Meaningful participation in the planning process generates positive behavioral effects. A manager of each responsibility center has to initiate immediate activities within his own functional sphere to develop a strategic long range profit plan as soon as he receive the planning premises and procedural instructions.

2.1.7.8 Implementation of Budgeting or Planning

Implementation of plan, developed and approved in the planning process involves the management function of leading as well as motivating subordinates in attaining enterprise objectives and goals. For that, effective management at all levels requires in the enterprise to communicate the objectives, goals, strategies, and policies and make the subordinates to be understood. On the other hand, there are many facets involved in management leadership and each of them stands on their own values and norms. Thus under managerial budgeting process, management should be aware in establishing realistic and attainable goals and objectives; to the overall enterprise and to each responsibility center.

2.1.7.9 Use of Periodic Performance Report

“As profit plan are being implemented during the period of time specified in the tactical plan, periodic performance reports are needed. These performance reports are prepared by the accounting department on a monthly basis. Also some special performance reports are prepared more often on an “as needed” basis. These performance reports (a) compare actual performance with planned performance and (b) show each different as a favorable or unfavorable performance variation” (*Welsch, Hilton and Gordon; 2006: 85*).

2.1.7.10 Use of Flexible Expenses Budgets

The flexible expenses budget is also known as the variable budget, sliding scale budget; expenses control budget or formula budget etc. The flexible budget concept completely applies only to expenses. It is completely separate from the profit plan, but used to complement it. In the context of Nepal, most of the companies' especially public enterprises do not have the practice of using flexible budget procedures. And rests integrate flexible expense budget to the profit planning procedures.

2.1.7.11 Implementation of Follow-up

Follow up is an important part of effective control. Because performance reports are based on assigned responsibilities, they are the basis for effective follow up actions. It is important to distinguish between cause is primary a responsibility of line management. Analysis to determine the underlying causes of both favorable and unfavorable performance variances should be given immediate priority.

“In the case of favorable performance variances, the underlying causes should also be identified. The case seldom requires corrective action. Rather the underlying causes of favorable variances often provide valuable information for improving effective and for developing positive re-enforcement are to the less successful operations and employees” (*Welsch, Hilton and Gordon; 2006: 88*).

“Finally, there should be a special “follow up of the prior follow up action”. This step should be designed to (1) determine the effectiveness of prior corrective actions and (2) provide a basis for improving future planning and control procedures” (*Welsch, Hilton and Gordon; 2006: 88*).

2.1.7.12 Classification of Budgets

The classifications of budgets are as follows:-

A) On the basis of time

1. Long term budget
2. Short term budget
3. Current budget

B) On the basis of function

1. Sales budget
2. Production budget
3. Direct material budget
4. Direct material purchase budget
5. Direct labor cost budget
6. Cost of production budget
7. Selling and distribution expenses budget
8. Cash budget
9. Capital budget

C) On the basis of flexibility

1. Static budget
2. Flexible budget

D) On the basis of nature of business activities

1. Capital expenditure budget
2. Operating expenditure budget

2.1.7.13 Problems and Limitations of Budgeting

The major problems of budgeting system are as follows:-

- Developing meaningful forecasting and plans, especially the sales plan.
- Seeking the support and involvement of all levels of management.
- Establishing realistic objectives, policies, procedures and standards of desired performance.
- Educating all individual to be involved in the budgeting process and joining their full participation etc.

The following are the limitation of budgeting system:-

- Budgeting is not an exact science. Its success hinges upon the provision of estimates.
- The installation of a perfect system of budgeting is not possible in a short period. Budgeting has to be a continuous exercise. It is a dynamic process.

- The success of the budgeting program is to understand by all and concerned effort for accomplishing the budget goals.
- The presence of a budgeting system should not make management complacent. The get best results of management; management should use budgeting with intelligence and foresight. Budgeting can not replace management.
- Budgeting will hide in efficiencies if a proper evaluation system lacks. It should be re examined regularly.

2.1.8 Budgeting as a Tool of Profit Planning

A budgeting is a written plan for the future. The manager of firms which use budgets, are forced to plan ahead. Thus, these firms tend to do well because they anticipate problems before they occur. A firm without financial goal may find it difficult to make proper decision. A firm with specific goals, in form of a budget, makes many decisions ahead of time. Budget helps a firm to control its costs by setting guidelines for spending money for undead items.

“Budget as a tool of planning and control is clearly related to the broader system of planning and control in an organization. Planning involves the specification of the basic objectives that the organization will pursue and fundamental polices that will guide it. In operation term, it involves the step of setting objectives, specifying goals, formulating strategies, and expressed in financial terms, for the operation and resources of an enterprise for same specified period in the future” (*Khan and Jain; 1989: 296*).

A concept of comprehensive budget covers its use in planning, organizing and controlling all the financial and operating activities of the firm in the forthcoming period. Budgeting summarize the estimated result of future transaction for the entire company in much the same manner as the accounting process records and summarize the results of completed transactions (*Lynch; 1989: 142*).

Hence, budgeting includes sales, production, distribution and financial aspects of an organization. Budget programs are designed to carry out a variety of function, planning, evaluation of performance, coordinating activities, implementation of plans, communicating motivating and authoring.

2.1.9 Objectives of Profit Planning

The main objectives of Profit Planning are as follows:-

- “It is a plan, which reflects the policy of a business in financial terms.
- It is a plan of action and serves as a declaration of policies.
- It is a control document by which management can monitor actual performance.
- It is the plan to forecast for future to avoid losses and to maximize profits, i.e. to help in planning.
- It is a plan state the firm’s expectation in clear, formal term to avoid confusion and to facilitate their attainability.
- It defines the objectives for the entire executive’s communication.
- It is a plan to bring about co ordination between different function of an enterprise, i.e. to help in co ordination.
- It is a plan to communicate expectations to all concerned with the management of the firm so that they are understood, supported and implemented.
- It acts as a motivator of employees.
- It provides a means of co ordination and communication. It is a measure against which to evaluate the quality of management.
- Budget facilitates centralize control with delegated authority and responsibility”
(Rathman, 1974: 20).

2.1.10 Development of Profit Planning

2.1.10.1 Sales Budget or Plan

Sales budget provides as estimate of goal to be sold and revenue to be derived from sales. It is a starting point in the budgeting procedure. Sales plan or budget is one of the function budgets and is essentially, a forecast of sales to be effected in a budget period. It defines the quantities and values of expected sales in total as well as product wise and area wise during definite future period. The preparation of sales budget is based up on the sales forecast the sales for the planning period.

Sales planning or budgeting provides basic management decision 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 plan can not be realistic. Thus management should develop a realistic sales plan. If management can not develop realistic sales plan, it will be little justified. Standing on the above definition the primary purposes of a sales plan can be stated as below:-

- To reduce uncertainty about future revenue,
- To incorporate management judgments and decisions into the planning process,
- To provide necessary information for developing other element of a comprehensive profit plan, and
- To facilitate management control of sales activities

A comprehensive sales plan comprises all sales activities. It is also referred as a market penetration plan. A common misconception is that sales planning involves for developing a profit. This shows only the amount of expected sales volume. But actually there are many variables, which influence to sales. So, we should be considering these influencing variable, when, preparing a sales plan.

Hence, sales plan is the strategizing point is the preparation of the managerial budgeting. All the other plan and budgets are dependent up on the sales budget. The budget is usually presented both in unites and in dollars of sales revenue or sales volume. The preparation of sales plan is based up on the sales forecast the sales for the planning period.

2.1.10.1.1 Strategic and Tactical Sales Planning

A sales plan can be developed of two types in accordance with period. Those are long term planning and short term planning. The planning prepared for more than one year is long term planning. Commonly, five years strategic sales planning is categorized as long range planning. The planning prepared for one year or less than one year is short range planning. It is also known as strategic and tactical sale plan.

Strategic long term sales plan is one of the first steps in the overall planning process. “Long- term sales plans are usually developed as annual amounts. The long term sales plan uses broad grouping of product (product lines) with separate consideration of major and new products and services. Long term sales plan usually involve in depth analyses of future market potentials, which may be built up from a basic foundation

such as population change, state of the economy, industry projections, and finally company objectives. Long term managerial strategies would effect such areas as long term pricing policy, development of new product and innovations of present products new directions in marketing efforts, expansion or changes in distribution channels, and cost patterns. The influence of managerial strategy decision is explicitly brought to bear on the long term sales plan primarily on a judgment basis” (*Welsch, Hilton and Gordon; 2006:173-174*).

2.1.10.1.2 Purpose of a Sales Plans\ Budget

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

- The present knowledge of the company,
- The environment and
- The management strategies.

The main purposes of a sales planning are as follows:-

- To reduce uncertainty about future revenue,
- To provide necessary information for developing other elements of managerial budgeting.
- To facilitate management judgment and decision into the planning process.

2.1.10.1.3 Components of Comprehensive Sales Plan

“A comprehensive sales plan should satisfy the requirement of, and be consistent with, the overall budgeting program” (*Welsch, Hilton and Gordon; 2006: 175-176*).

The components of comprehensive sales plan can be shown with the following two broad phases as follows:-

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

- External variable identified and evaluated.
- Broad enterprises objective and goal formulated.
- Strategic for the company developed.
- Planning premises specified” (*Welsch, Hilton and Gordon; 2006: 175-176*).

(B) Components of a comprehensive sales plan:-

- Management policies and assumptions.
- Marketing plan (Sales and services revenues) revenues.
- Advertising and promotion plan.
- Distribution (selling) expenses plan” (*Welsch, Hilton and Gordon; 2006: 175-176*).

2.1.10.1.4 Developing a Comprehensive Sales Plan or Budget

Basic steps in developing a comprehensive sales budget are as follows:

Step-1 “To develop management guidelines in relation to sales plan including the sales planning process and planning responsibility.” (*Welsch, Hilton and Gordon; 2006: 175-176*).

Step-2 “To prepare sales forecast consistent with specified forecasting guidelines including assumption” (*Welsch, Hilton and Gordon; 2006: 175-176*).

Forecasting method is broadly classified as:

- Quantitative
- Technical
- Judgmental

Step-3 Assemble all other relevant data that will be relevant in developing a comprehensive sales plan” (*Welsch, Hilton and Gordon; 2006: 175-176*).

Have to assemble relevant data as :-

- Manufacturing capacity
- Sources of raw material and a labor force
- Capital availability
- Availability of alternative distribution channel

Step-4 Based on above steps, management evaluate and judgment to develop comprehensive sales plan. There are four different participation approaches widely used in the process of developing sales plan:-

- Sales forces composite

- Sales division managers composite
- Executive decision
- Statistical approach

Step-5 To get the managerial commitment in attaining the goals specified in the comprehensive sales plan.

Above steps must be revised and implemented in various ways depending on the characteristics of the business and the expertise of the management.

2.1.10.1.5 Method of Projecting Sales

Presenting future expectation over sales is such a complex work. Moreover it is based on the external or says uncontrollable factors like market structure, consumer behavior, other natural factors etc. and a little more on internal factors. Standing on the fact, a company's sales projection should be nearest to the reality and for tackling to that challenge, we can use one or more than one of the following methods:

- Judgmental methods
- Statistical methods
- Special purpose methods

2.1.10.1.6 Consideration of Alternative in Developing a realistic Sales Plan or Budget

Sales plan is also a step of decision making process. All other are depended on it. In this plan the executive management has to choose one final alternative among the various alternatives. Important decision must be made on the issues of new product, pricing, expansion or contraction of sales areas, size of sales force, new distribution cost limitation, and advertising and other promotional policies. Basically, the following two types of problems should be considered while developing a sales plan:

- i. Price – Cost – Volume Consideration
- ii. Product line alternative

2.1.10.2 Production Plan or Budget

2.1.10.2.1 Meaning

The production budget deals with the scheduling of operations, the determination of volume, and the establishment of maximum and minimum quantities of raw material and finished goods inventories. It summarizes, details and after all provides the basis for preparing the budget of material, labor and factory overhead. These three elements selection of the income statement and their totals are estimated in the manufacturing budget.

Once sales and inventory requirements have been established, “the logical first step in the production plan is a facility survey; this survey should determine that all planned products can be produced on existing or contemplated equipment and that they can be made in the volumes required. In this initial stage availability of labor supply and skill are considered, bottlenecks caused by lack of skill or equipments are frequently uncovered. At this point decisions must be made either to eliminate bottlenecks or reduce planned volume.” (*Thomson; 1999: 58*).

The production plan involves determining the number of units of each product that must be manufactured to meet planned sales and maintaining planned inventory levels of finished goods. The production budget is prepared in units only, which can be shown in the following way:

$$\text{Budgeted Production Units} = \text{Budgeted Sales Unit} + \text{Desired Closing Inventory} \\ - \text{Opening Inventory}$$

Thus, production is based on budgeted sales volume and desired inventory level. The responsibility for the preparation and operation of production budget is of the production manager.

2.1.10.2.2 Responsibility for Production Plan

Production managers are responsible for the development of production plan. The complete and detailed marketing plan is given to the production manager translating it into a production program, consistent with managerial policies and subject to certain constraints. Managers have first-hand knowledge of the plant and personnel

capacities, availability of materials, and production process. Although the responsibility rests directly upon the production manager, the entire corporate policies must be considered in such matters as:

- Inventory levels,
- Stability of production and
- Capital additions.

With respect to production planning, the manager must maintain an optimum co-ordination between sales, inventory and production levels. On the other hand, an efficient, standardized and co-coordinated plan is required for economic production.

2.1.10.2.3 General Considerations in Planning Production and Inventory Levels

Following basic facts should be considerations while planning the production:-

- Total production requirement (by product) for the budget period.
- Inventory policies about levels of finished goods, work in process and the cost of carrying inventory.
- Plant capacity policies, such as the limits of permissible departures from a stable production level throughout the year.
- Adequacy of manufacturing facilities [expansion or contraction of plant capacity.]
- Availability of direct material, purchased components and labor.
- Length of the processing time.
- Economic lots or runs.
- Timing of production throughout the budget period, by product and responsible centers. (*Welsch, Hilton and Gordon, 2006:214*).

However, the approach used by a particular company shall depend upon its size and the characteristics of its manufacturing processes.

2.1.10.2.4 Developing a Production Plan

“When the budgeted production for the budget period has been determined, the next problem is prorating this production by interim period during the budget year. Interim production must be planned to (1) provide sufficient goods to meet interim sales

requirements, (2) keep interim inventory levels within policy constraints, and (3) manufacture the goods as economically as possible. These three objectives may not always be in complete harmony” (*Welsch, Hilton and Gordon; 2006: 215*).

The sales unit estimated in the sales budget must be translated in production units with considering management inventory policy. Production manager must translate the quantities in the sales budget in to required production unit for the budget period for each product. Basically there are three major steps to be followed in developing a production plan:-

- Establishing policies for inventory levels.
- Planning the total quantity of each product that is to be manufactured during the budget period.
- Scheduling the production by interim period.

2.1.10.3 Material Plan or Budget

Planning and controlling of material purchase and material usages is a comprehensive managerial budgeting of raw material involved in production process. Raw material budget is prepared after the determination of production. It is depended upon production volume. The material budget is the responsibility of the purchasing manager, since it will be he or she who is responsible for obtaining the planned quantities of raw material to meet the production requirement. The objective is to purchase the material at the right time, from the right place and at the right price. In addition, it is necessary to take into account for maintaining the stock level of raw material.

A comprehensive managerial budgeting includes planning and controlling of raw material and components used in the manufacturing of finished product. Adequate coordination and balance should be maintained in between (a) factory requirements for raw materials, (b) raw material inventory levels, and (c) purchase of raw materials. Hence, planning raw material usually requires the following sub budgets:-

- Materials Budget
- Purchase Budget
- Material and Inventory Budget

2.1.10.3.1 Material and Parts Inventory Policies

The primary consideration in setting inventory policies for materials and parts are:-

- Timing and quantities of manufacturing needs.
- Economic in purchasing through quantity discount.
- Availability of material and parts.
- Lead time.
- Perish ability of material and parts.
- Storage facilities needed.
- Capital requirement to financial inventory.
- Expected changes in the cost of material and parts.
- Cost of storage.
- Risks involved in inventories.
- Opportunity costs.

2.1.10.3.2 Purchasing Policy

Management policy with respect to purchase and inventory should be specified. The two basic timing factors are (1) how much to purchase at a time and (2) when to purchase it. A well known approach to compute the purchase quantity is the Economic Order quantity Model (EOQ). Formula for the computation of EOQ is as follows:

$$EOQ = \sqrt{\frac{2AO}{C}}$$

Where,

A= Total quantity to be purchase

O= Average cost of placing an order

C= Annual carrying one unit in inventory.

The second question is; when to purchase? It can be determined by reorder point method. It is the point where the inventory level is equal to the quantity needed to sustain production for a period to reorder and receive the replenishments. It can be shown as follows:

Re Order Point= Average Usage × Average lead time + Safety inventory

2.1.10.3.3 just-in-time Purchase

Just in time purchase concept is the latest development in the field of material purchase and inventory control. Its primary objective is to minimize inventory levels and its cost. According to this approach, materials are purchased only at the time of production so as to minimize the inventory holding costs. But the problem is to anticipate the exact time of material requirement.

2.1.10.4 Planning and Controlling Direct Labor Cost

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

Planning and controlling labor costs involve major and complex area: (1) personnel needs, (2) recruitment, (3) training, (4) job description and evaluation, (5) performance measurement, (6) union negotiation, and (7) wage and salary administration. A comprehensive managerial budgeting program should incorporate appropriate techniques and approaches applicable to each problem area. Careful planning and realistic control of long term and short term labor costs will benefit both the company and its employee. There are two types of labor costs as follows:

- a. Direct labor cost, and
- b. Indirect labor cost.

2.1.10.5 Planning and Controlling Expenses

The expenses planning and controlling is very necessary for supporting the objectives and planned programmers of the firm, an expenses in related with profit. It should not be forget that the minimization of cost is maximization profit. Manage should view expenses planning and control as necessary to maintain reasonable expense levels to

support the objectives and planned programs of the enterprise. Expenses planning should not focus on decreasing expenses, but rather on better utilization of limited resources. Expenses planning and control should focus on the relationship between expenditures and the benefit derived from those expenditures and the benefits derived from that expenditure. The desired benefits should be viewed as goals, and sufficient resources must be planned to support the operating activities essential for their accomplishment.

2.1.10.6 Manufacturing Overhead Budget

Manufacturing overheads are the part of the total production cost, which do not directly identify with specific products or jobs. Manufacturing overhead includes many dissimilar expenses; therefore, they cause problem in the allocation of the costs to products. There are two distinct types of responsibility centers in most of the manufacturing companies, viz. production and service. Responsibility for the operation of each department should be classified separately in the chart of accounts used by the cost accounting department. Finally, the expenses of each department should be planned and controlled separately.

After the production budget has been completed, manufacturing expense budget should be developed for each responsibility center in the organization. It provides a schedule of all costs of production other than of direct material and labor. These costs should be broken down by cost behavior as variable and fixed for budgeting purpose and a predetermined overhead rate should be developed. This rate will be used to apply manufacturing overheads to the units of production through out the budget period. After all, the development of manufacturing overhead budget should be followed by the following consideration:-

- Translate the requirement specified in the production plan with output or activity in each department.
- Plan departmental overhead expenses.
- Allocation of the planned departmental expenses to the producing department.
- Allocation of the production department's expenses to the products.

2.1.10.7 Selling and Distribution Expenses Budget

The selling and administrative expenses budget contains a listing of anticipated expenses for the budget period that will be incurred in areas other than manufacturing. The budget will be made up of many smaller, individual budgets submitted by various persons having responsibility for cost control in selling and administrative matters. If the numbers of expense items vary large, separate budgets may be needed for the selling and administrative functions. Selling and distribution expenses include all costs related to selling, distribution, and delivery of products to customers. In many companies, this cost is a significant percentage of the total expenses. Careful planning of such expenses affects the profit potential of the firm.

2.1.10.8 Administrative Expenses Budget

Administrative expenses budget includes those expenses other than manufacturing and distribution. They are incurred in the responsibility center that provides supervision of and service to all functions of the enterprise, rather than in the performance of any one function. Because a large portion of administrative expenses are fixed rather than variable, the notion persists that they cannot be controlled. Aside from certain top manager's salaries, most administrative expenses are determined by management decisions.

It is advisable to base budgeted administrative expenses on specific plans and programs. Past experience, adjusted for anticipated changes in management policy and general economic conditions, is helpful. Because most administrative expenses are fixed, an analysis of the historical record will often provide a sound basis for budgeting them.

2.1.10.9 Capital Expenditure Budget

Capital expenditure is often called capital budgeting. Capital refers to total assets of the firm while budgeting is the monetary presentation of a plan. But in capital budgeting the term capital refers to the fixed assets used in the production while budgeting is a detailed outline of planned capital expenditure. Generally, the capital budgeting is concerned with expansion, addition and replacement of fixed assets.

“The capital budgeting decision, as already pointed out; pertain to fixed assets or long term assets which by definition refer to assets which by definition refer to assets which are in operation, and yield a return, over a period of time, usually exceeding one year. The capital budgeting decision, therefore, involves a current outlay or series of outlays of cash resources benefits.” (*Quirin; 1967: 2*).

Hence, investment in long term assets for increasing the revenue of the firm is called capital budgeting. It is a decision to invest funds in long term activities for future benefits that increase the wealth of the firm and there increase the value of share of the firm. Capital budgeting plan to deploy the available resources of the purpose of maximizing the long term profitability of the firm. It involves the generation of investment proposals, the estimation of cash flows and the selection of projects based upon as acceptance.

2.1.10.9.1 Process for Planning and Controlling of Capital Expenditures

Capital expenditure is such a complex part in an organization. It plays a vital role in the determination of future of the organization and that is why a proper and an efficient process to make plan and get control over it should be followed as of below:

- Identify and generation capital additional projects and other needs.
- Develop and refine capital addition proposal- collection of relevant data about each proposal, including any related alternatives.
- Analyze and evaluate all capital additions, proposal, and alternatives. Emphasis should be given to the validity of the underlying financial and operation data.
- Make capital expenditure decisions to accept the vest alternatives and the assignment of project designations to selected alternatives.
- Develop the capital expenditure budget;
 - Strategic plan- Replant and extend the long term plan by dropping the past year and adding one year into the future.
 - Tactical plan- Develop a detail annual plan capital expenditure budget, by responsibility center and time that is consistent with a comprehensive profit plan.
- Establish control of capital expenditure during the budget year by using periodic and special performance report by responsibility centers.

- Conduct post completion audits and follow up evaluation of the actual result from capital expenditure in period after completion.

2.1.10.9.2 Capital Expenses Decision

The crucial expenses decision is the choice of management from the computation of capital expenditure alternative problems.

1. Investment Decision

Selecting the best alternative based on their economic worth to the company called investment decision.

2. Financing Decision

“Determining the amount and sources of funds needed to pay for the selected alternatives. This cash constraint may necessarily limit the project and proposal that can be initiated” (*Welsch, Hilton and Gordon; 2006: 401*).

2.1.10.9.3 Evaluation of Investment Decision

There are several methods available for making such decision. Though some following are popular for the evaluation of investment proposals:

1. Net Present Value Method

NPV method is a discounted technique which recognizes the time value of money. It is a classic economic method for evaluating the investment proposal. It considers that the cash flows at different time period differ in their values.

$$NPV = \sum_{t=0}^n \frac{A_t - C}{(1+k)^n}$$

Where,

k= cost of capital

T= no. of year

A= Expected cash inflow

c= initial cash outlays

Decision rule

1. Independent Project: - All projects having positive net present (NPV) should be accepted and vice versa.

Decision rule

1. Independent project: A project should be accepted if its payback period is less than or equal to a specified maximum period i.e. standard time fixed.
2. Mutually exclusive projects: project having lowest payback period should be accepted.

4. Average Rate of Return \Accounting Rate of Return (ARR)

Average rate of return based upon accounting profit rather than cash flow. It represents the ratio of average annual net profit after tax to the average investment of the project.

$$ARR = \frac{\text{Average Net Profit After Tax}}{\text{Initial Investment (NCO)}} \times 100 \quad \text{or,}$$

$$ARR = \frac{\text{Average Net Profit After Tax}}{\text{Average Investment}} \times 100$$

Decision rule

1. Independent project: Accept those project whose ARR is higher than the minimum rate established by the management and reject those projects which have ARR less than the minimum rate.
2. Mutually exclusive: Accept that project which has the highest accounting rate of return.

5. Profitability Index (PI)

Profitability index denotes the Benefit Cost Ratio and excess present value index. It is the ratio of present value of net cash benefit to the present value of net cash outlay.

$$PI = \frac{\text{Total Present Value}}{\text{Net Cash Outlay}} \quad \text{Or,}$$

$$PI = \frac{(1+k)^t}{A_0}$$

Where,

K= Cost of capital

T= No. of year

A_o = Expected cash flow

Acceptance rule

1. Independent project: All project that have I greater than 1 are accepted (IP>1).
2. Mutually exclusive: Project that has highest IP is accepted.

2.1.10.10 Planning Cash Flows

Cash is base for any business. Without cash, business cannot be survived. So, cash budget is one of the most important schedules prepared during the budgeting process. A cash budget is developed after all the operating budgets and capital expenditure outlays have been accomplished.

“A cash budget shows the planned cash inflows, outflows, and ending position by interim period for a specific time span. Most companies should develop both long term and short term plans about their cash flows. The short term cash budget is includes in the annual profit plan. A cash budget, basically, includes two parts (1) the planned cash receipts (inflows) (2) the planned cash disbursement (outflows). Planning cash inflow and outflow given the planned beginning and ending cash position for the budget period. Planning the cash inflow and outflow will indicate (1) the need for financing probable cash deficit or (2) the need for investment planning to put excess cash to profitable use.” (*Welsch, Hilton and Gordon; 2006; 433-434*).

The primary purposes of the cash budget are:-

- Providing managers with advance notices of the resources at their disposal and the result they are expected to achieve.
- Providing targets useful in evaluating departmental performance.
- Providing warnings of potential cash shortages by time period.
- Establishing the need for financing and\ or the availability of idle cash for investment.

- Forcing managers to plan and coordinate cash with (a) total working capital,(b) sales revenue,(c) expenses, (d) investments and (e) liabilities .
- Establishing a sound basis for continuous monitoring of the cash position.

2.1.10.10.1 Techniques for Improving Cash flow

Planning the cash flows of a company should include consideration of how to improve cash flow. Improving cash flow basically involves increasing the amount of available cash on a day to day basis. Some of the ways often used to improving the efficiency of the cash collection process are as follows:-

- Review the lag period from the date of sales of goods and services on credit to the mailing of (a) invoices and (b) the first billing. To extend feasible, invoices should be designated to also be the first billing to encourage immediate payment by the customer. The time lag here can avoid a significant adverse affect on early collection.
- If cash discount are given to customers for early payment, review their effect on early cash collection and whether the discount policy is being violated in the company (i.e. allowing the discount after its expiration date) alternatively, if discounts are not given, does inflow is company assess an interest penalty for late payment? How much cash inflow is lost by not charging for late payments?
- Review the credit granting process to determine whether bad credit risks and collection screened out. Also, are delinquent receivable being identified early and collection action taken before the receivable becomes an uncollectible (i. e. a bad dept)?
- Consider ways to decrease the time between the date that customers pay by check and the date that cash is available for user in the company's bank account. This time is called float and it may vary from one day to ten days. Float can be very costly because (a) the cash inflow is slow and (b) the opportunity to earn interest on the cash during the float period is lost. The float lag can be minimized by techniques such as the following:-
 - Use lockbox system- the purpose of lockbox system is to reduce the float time of cash from the customer to the company.

- Establish bank accounts in outlying areas where a designated company employee receives the customer's payments and immediately deposits the checks in the bank account.
- Decrease the check- processing time within the company and make daily night deposit of all cash checks received during the day.
- Promoter timely and frequent billing on all receivable. Do not use month end billing, bill immediately after sales.

A company should develop a specific policy about the investment of temporarily idle cash. The policy should be specific about such issues as (a) types and mix of acceptable securities, (b) monthly reporting and monitoring of the portfolio, and (c) safeguarding and disposal of temporary investment.

2.1.10.11 Completion and Application of the Budgeting or Profit Planning

2.1.10.11.1 Completion of Budgeting or Profit Planning

The development of an annual profit plan ends with the planned income statement, the planed balance sheet and the planned cash flow statement. These three statements summarize and integrate the detail plans developed by management for the planning period. At this point in profit planning, the budget director has an important responsibility. Aside from designing and improving the overall system, the budget director has been described as adviser each responsibility center. Now the parts must be assembled into a complete profit plan.

2.1.10.11.2 Implementing the Budgeting or Profit Planning

The ultimate test of whether the effort and cost of developing a profit plan are worth whole is its usefulness to management; this is a cost benefit test. We have emphasized that a profit plan should represent potentially attainable goals, yet the goals should present challenges to the enterprise. The plan should be developed with conviction that the enterprise is going to met or exceed all major objectives.

After approval of a profit planning the next step is its distribution to the center managers in the enterprise. Distribution instructions were illustrated as an important part of the budget manual. Recall that a limited number of copies of the plan should be prepared. Complete profit plan should be distributed to the vice- president and to

the heads of certain staff groups. The guiding principle in establishing the distribution policy might be to provide one copy to each member of the management team according to his or her overall responsibilities while taking into account the problem of security.

2.1.10.12 Ratio Analysis in Profit Planning

2.1.10.12.1 Meaning

Ratio refers to the numerical or quantitative relationship between two items or variables. It is one number expressed by dividing one item of the relationship with the other. Ratio analysis of business enterprise centers on efforts to derive quantitative measure or guides concerning the expected capacity of the firm to meet its future financial obligations or expectation. It is a very powerful tool of company's strength, weakness, opportunity and threat analysis. Hence, ratio analyses are the process of identifying the financial strengths and weakness of the firm by properly establishing relationship between the items of financial statement.

2.1.10.12.2 Ratio Analysis; Relation with or Profit Planning

“The ratio analysis can be of invaluable aid to management in the discharge of its basic functions of forecasting, planning, co- ordination, communications and control. By an analytical study of the past performance of the business, it helps in predicting and projecting the future. It assists in communication by conveying information, which is pertinent and purposeful to those for whom it is meant. It promotes co- ordination by a study of the efficiency of the business and paves the way for effective control of business operations by undertaking and appraisal for both the physical and monetary targets. Hence, ratio analysis becomes an integral part of targets. It becomes an integral part of budgeting system.” (*Goyal, M.M.; 1997: 496*).

2.1.10.13 Cost volume Profit Analysis

Cost volume Profit analyses is a tool of management to show the relationship between the elements of profit planning. Profit planning is the function of the selling price of product, demand, variable costs, fixed costs and taxes. The whole picture of profit planning is associated with cost volume profit inter relationship. CVP analyses assumes that under constant underlying conditions, CVP analyses can be used for the analyses of break even volume, break even analyses and contribution margin analyses

for profit planning. This assumption of constant underlying condition and the short term relationship have been criticized by the many all thorns of financial management and accounting. With the help of CVP management require careful analyses of cost behavior in relationship to output volume.

2.1.10.13.1 Break- Even- Point Analysis

Break even point is that point which break the total cost and the selling price evenly to show the level of output or sales at which there shall be neither profit or loss. At this point, the incomes of the business exactly equal its expenditure. It can be determine by three techniques. They are as follows:-

- Equation technique
- Contribution margin technique
- Graphic technique

Equation technique uses an algebraic equation to calculate the BEP. This is the most general form of analysis which can be applied to any CVP situation. This approach of finding out the BEP is based on the profit equations.

$$\text{Sales Revenue} = \text{Fixed Cost} + \text{Variable Cost} + \text{Profit}$$

Contribution margin is the difference between the sales revenue and variable cost of production. Contribution margin consist the fixed cost and profit. Formulae to find out BEP are mentioned below:

$$\text{BEP (in unit)} = \frac{\text{Fixed Cost}}{\text{CMPU}} \quad \text{and,}$$

$$\text{BEP (in Rs.)} = \frac{\text{Fixed Cost}}{\text{CM Ratio}}$$

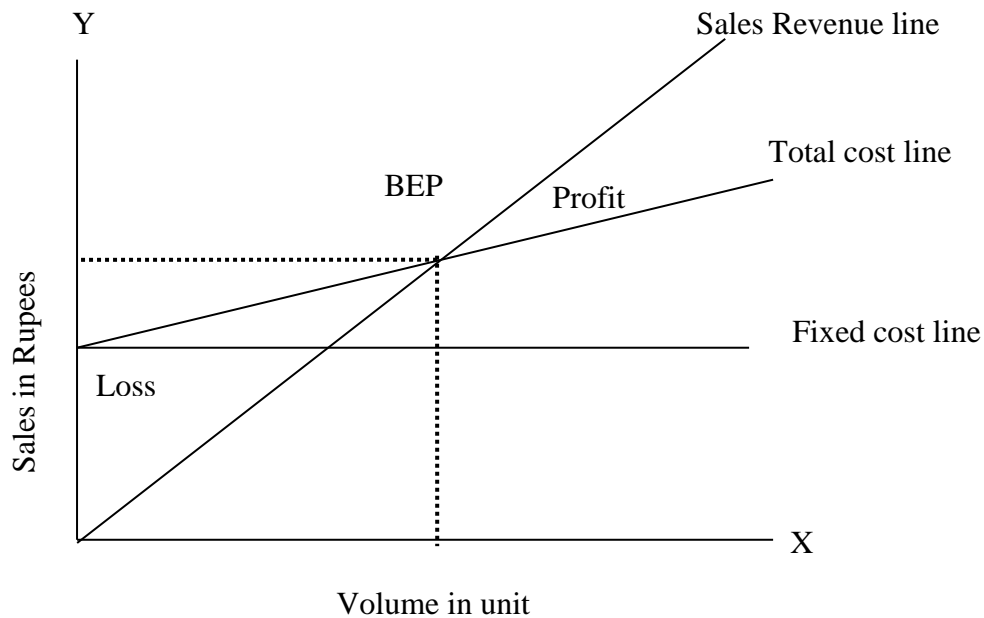
Where,

CMPU= Contribution Margin Per Unit

CM Ratio= Contribution Margin Ratio

To depict the relationship between profit and volume of activity, a cost volume profit graph is commonly used. Graphical presentation of CVP is preferred:-

- Where a simple overview is sufficient,
- Where there is a need to avoid a detailed, of numerical approach avocation of numerical approach is specially required if, the recipients of the information have no accounting back ground (*Munankarmi; 2002: P-144*).



In this figure fixed cost has remained constant within the relevant range; the fixed cost curve is parallel to OX axis. Variable costs slope has up warded from the origin to right but the slope depends on variable cost ratio. The total cost curve is parallels the variable cost curve.

2.1.10.13.2 Application of Break Even Analysis in or Profit Planning

Break even concept can be used to formulate different policies in a business enterprise. Some of those applications are as follows:-

- Determination of profit at different levels of sales and margin of safety.
- To find the level of output to get the desired profit.
- Effect of price reduction on sales volume and changes in sales mix.
- Selection of most profitable alternative and make or buy decision and drop and \ or add decisions (*Maheshwari, 2000: 182*).

2.1.11 Performance Evaluation

Use of performance reporting for internal management is an important part of managerial budgeting systems. The performance reporting phase of a comprehensive PPC program significantly influences the extent to which the organization's planned goals and objectives are attained. To indicate the extensive reporting requirements, a business house needs to focus on performance reporting. On this regard, the following overview of financial report is presented and briefly explained:-

1. Special External Report

These are the reports provided to government agencies, regulatory commission, creditor's investigative agencies and other external groups to make the management active.

2. Report to Owners

This is the traditional annual report to the owners and other special reports prepared for the owners. These reports, by and large, are based on "generally accepted accounting principles" and generally report data that have been subject to on audit by on independent CPA.

3. Internal Reports

These confidential reports are prepared within the company for internal use only. This report is sub divided into three different sub classifications.

- Statistical Reports
- Special Reports
- Performance Reports

2.1.12 Analysis of Budget Variances

Comparison of actual result with planned or budgeted goals has been emphasized as an integral part of the control process. Performance report is mainly concerned with reporting of variance between actual results and planned or budgeted goals. Performance report just indicates the variances and the meaningful analysis of them if possible through the technique of variance analysis. Variance indicated through performance reports has some managerial meaning. There are numerous ways to

study or investigate variances to determine the underlying cause. Some of the primary approaches are as follows:-

- Conferences with responsibility center manager and supervisions and other employees in the particular responsibility center involved
- Analysis of the work situation including the flow of work, coordination of activities, effectiveness of supervision, and other prevailing circumstances
- Direct observation
- On-the-spot investigation by line managers
- Investigations by staff groups
- Internal audits
- Special studies
- Variance Analysis

Normally, variance can take two form viz. favorable variance and unfavorable variance. When actual results are better than expected, a favorable variance arises and on the other hand, when actual results are up to standard, unfavorable variances arise. Variance analysis is helpful in controlling the performance and achieving the profits that have been planned.

2.2 Review of Thesis

There are many research works made as like as this topic i.e. profit planning and control. But all that research had not success to analysis the true picture of planning of profit. The research work “Managerial Budgeting as a tool of increasing efficiency of public enterprise “which focus to all kind of budget which help to increasing overall efficiency (Profit) of this enterprise. An attempt is made here to review some of the researches, which have been submitted in profit planning and control in public enterprise.

Regmi (2004) carried out a study on “*Planning Process and Its Impact on Profitability, A Case Study of Harisiddhi Briks and Tiles Factory Ltd,*” has pointed out following major findings and recommendations:-

Objectives of the study:

- To study the reason of financial loss.
- To examine the present practice of profit planning policy and its impact on profitability of HBTF.
- To observe HBTF'S profit planning on the basis of overall managerial budgeting system.
- To analyze the difference between budgeted and actual achievement of the company.
- To point out suggestion and recommendation to improve the situation on the basis of the findings.

Major Findings:

- HBTF does not have systematic special plans for the formulation and implementation of comprehensive profit planning. So that budgeting system is not based on scientific and realistic approach.
- Sales and production forecasts are unrealistic or over ambitious.
- HBTF does not have systematic and effective control mechanism and no effective maintenance system.
- The inventory is in increasing trend and excessive also.
- HBTF has not practice of participatory management system, the decision making power in HBTF is concerned only with the top level management.
- HBTF has unnecessary and unproductive expenditure and investment, which lead the factory running into loss.
- HBTF is unable to define clearly the duties and responsibilities of the employees although it is managed by private sector.
- HBTF is seriously affected by the problem of excessive fixed cost.
- There is under utilization of available capacity in HBTF.
- There is no provision of responsibilities accounting system in HBTF. Due to the reason, nobody is accountable for their unfavourable variances.
- HBTF has not proper practice of segregated cost into fixed and variable.
- Periodic performance report has not been in use to find the underlying causes of poor achievement.
- The factory cannot meet the Break-even sales; it running in heavy loss.

- It is found that the formulation and implementation of planning procedure is very poor, which has adversely affected the overall profitability and there is no system of making corrective action for improvement.

Recommendations:

- HBTF should clearly define its objectives
- HBTF should develop the long-term strategic plans for every aspect of its operation.
- The factory should analysis its controllable and non-controllable variables.
- Considering the condition of the company, it is advised that HBTF should have in-depth analysis of the factory's strength and weakness. It should try to overcome its weakness by using the strengths.
- Sales budget should be prepared on the realistic ground.
- The production budget should be prepared by interim time periods also.
- HBTF has a lot of organizational resources remaining mostly idle.
- HBTF must empower its marketing department to do other marketing activities in addition to concentration in sales at factory.
- It must leasing and renting of idle land, plants and machinery for extra earning and alternatively uses them in idle time.
- Transfer\ relocate its facility and plants to the rural area where its quality clay is sufficiently available for several years.
- The study has found that is a serious lack of professional management in HBTF.
- For the proper co-ordination within organization; Line and staff authorities and responsibilities should be clearly defined.
- Program to improve the employed productivity should be made effective.
- HBTF needs to classify costs in scientific manager i.e. variable, semi variable and fixed, so that cost can be better analyzed, effectively planned and controlled.
- System of periodical performance reports should be strictly followed to be conscious towards poor performance and to take corrective action timely.
- HBTF should have to consider break-even analysis while preparing sales plan and adopt contribution margin approach to improve profitability.

- The factory should be operated on purely commercial basis.

Dahal (2006) carried out the study on “*Impact of Budgeting on Profitability of Manufacturing Industry: A Case Study of Ganga Rosin and Turpentine Industry*” in 2006. This study has pointed out the following major findings and gave recommendations:-

Objectives of the study:

- To analyze the profit planning applied in GRTI.
- To analyze the major functional and financial plans formulated and implemented in GRTI.
- To examine the outcome of those plans in terms of achievement.
- To point out possible suggestions and recommendations to improve the performance of GRTI with the means to profit planning system.

Findings:

- The industry has not operated in full capacity.
- Actual sales of Rosin are more fluctuating than budgeted sales and Budgeted production of Rosin are more fluctuating than Actual production.
- GRTI has a practice of preparing both strategic and tactical plans.
- The net profit and gross profit of GRTI are in increasing trend every year.
- Comparing net profit and gross profit, net profit is very low than gross profit, it shows that over fixed cost or administration charge.
- There is positive and close correlation between budgeted and actual sales.
- GRTI was able to meet its BEP sales therefore, it was profit every year.
- GRTI has no practice of cost segregation.
- Investment in current assets is being higher than necessity, which may reduce the profitability of industry in the future.

Recommendations:

- GRTI should have in depth analysis of the industry’s strengths and weaknesses. It should try to overcome its weaknesses by using the strengths.

- GRTI should utilize full capacity to increase its production and to generate more incomes.
- It should develop its specific goals for the coming year. Such goals may be net profit on sales, cost production, sales revenue etc. Without such goals the operation of the industry may not be effective.
- Democratic style of management should be followed while formulating plans, policies of the organization. Lower level's participation should be encouraged in budgeting or profit planning and similarly there should be proper communication to all levels of management about the tactical and strategic plan of the industry.
- The pricing policy of the industry should be revised. The cost of production should be considered while pricing the productions.
- The sale budget should be prepared showing sales unite, sales revenue and sales territories for both products.
- CVP relationship should be considered while formulating profit plan and the industry should be accustomed with flexible budget system.
- System of periodical performance report should be strictly followed.
- Cost should be clearly classified as fixed and variable.
- If possible, GRTI should formulate the profit planning or managerial budgeting calendar (both short-term and long-term).
- It should make sales promotion by different media in Nepal and foreign country.
- GRTI should make search of a market of its production third country.

Ghimire (2006) has made research on “*Impact of Budgeting on Profitability, A Case Study of Nepal Electricity Authority,*” and pointed out the following major findings and recommendations:-

Objective of the study:

- To analyze the various functional budget of NEA
- To obtain a true a picture of profit planning diversification of NEA
- To analyze the variance between budget and actual achievements of the authority.
- To point out the major shortcoming and recommend suggestive measures.

Findings:

- Actual sales are more fluctuating than budget sales and budgeted production is more fluctuating than actual production.
- NEA has a practice of preparing both strategic and tactical Budgeting but tactical short range plan is prepared for external purpose and strategic plan is prepared for internal propose.
- NEA has been suffering from loss for the FY 2057\058 to 2061\062.
- NEA has been paying huge amount of interest on long-term loan.
- There are perfect correlations between budgeted and actual sales and budgeted and actual production.
- Actual sales are always less than actual production due to power loss which is a main problem of NEA, which affects its profit.
- Overhead are not classified systematically which create differently to analysis expenses effectively.
- The information system of NEA was not effective. The lower level staff normally did not get information about overall operation.
- NEA has sufficient cash surplus to pray for expenditure; it was to borrow loan to meet minimum cash balance.
- Account receivable and average collection period are in increasing trend during study period.
- NEA has no practice of cost segregation.
- NEA was unable to meet its BEP sales therefore it was at loss every year.
- The flexible budget shows that to utilized capacity, NEA earns operating profit.
- NEA liquidity ratio was satisfactory and profitability ratios were not satisfactory.
- NEA has maintained its periodic performance report systematically.
- NEA has high fixed cost which the main cause of loss

Recommendations:

- NEA should have an efficient management system to control over costs. It must be maintain fixed cost to minimum standard level.
- NEA should restructure its capital structure.

- Sales budget should be prepared on the realistic ground.
- NEA should be considered cost volume profit relationship while developing the sales plan and strategy.
- NEA should be follow tight collection policy.
- NEA should be utilized all its available capacity.
- NEA should maintain its periodic performance report systematically.

Khatri (2008) has made research on “*Budgeting System and Its Impact on Profitability of Manufacturing Industry, A Case Study of Gosheli Packing Industry,*” and has pointed out following major finding and gave recommendations:-

Objective of the study:

- To examine the present practice of ppc and its impact in profitability of G.P
- To compute the BEP for last year of study
- To analysis the difference between budgeted and actual achievement of the company
- To study the region of financial loss
- To point out suggestion and recommendation to improve the situation based on the findings

Major Finding:

- The trend of budgeted and actual sales are flows same direction.
- Actual production of GPI are more fluctuating than budgeted production
- The budgeted sales and budgeted production are same in every F.Y. GPI has practice of preparing both strategic and tactical sales plan. Only strategic plan was prepare systematically.
- There are high profit correlation between actual and budgeted production and sales.
- Actual material purchase budget are more fluctuating than budgeted purchase of material. The correlation between budgeted and actual purchase are low positive correlation.
- The Overhead expenses are not classified systematically.
- The actual labor expenses are increasing every F.Y.

- GPI has no practice of cost segregation and no proper allocation of manufacturing costs.
- GPI was able to meet its BEP sales therefore it we profit every year.
- GPI has not maintained its periodic performance report systematically.
- Financing in debt is being lower than necessary, which may reduce the profitability of industry in future.
- GPI, other ratio, liquidity, profitability etc, were satisfactory.
- The company has not maintained the broad and long-rang objective and periodic report and objectives are limited to the high- ranking official only.

Recommendations:

- GPI should develop its specific goals for the coming year. Such goals may be net profit on sales, cost of production, sales revenue etc.
- The sales budget should be prepared short-range sales plan also.
- Systematic planning system helps the management to control and easy the activities. So it should be used systematic planning.
- GPI should have an effective as well as scientific record system of the essential documents.
- It should reduce its operating costs to increase net profit.
- It should make sales promotion by different media in Nepal and foreign country.
- Cost should be clearly classified into fixed and variable
- Balance sheet and profit & loss a/c should be clear, expenses classified into the nature of expenses, assets and liabilities are separate in its nature.
- The cash budget should be developed per year to find out surplus or deficit from receipt and payment of cash.
- CVP relationship should be considered while formulating profit plan and the industry should be accustomed with flexible budget system.
- System of periodical performance report should be strictly followed.

Shrestha (2008) has made research on “*A Study on Management of Deposit and Liquidity and Its Impact on Profitability, A Case Study of Everest Bank Ltd*” and has pointed out following major finding and gave recommendations

Objectives of the Study:

- To analyze the composition of assets and liabilities of joint venture banks in Nepal.
- To examine the utilization of assets.
- To evaluate the trend of deposits and loans of joint venture banks in Nepal.
- To evaluate the liquidity, profitability, capital structure activity and capital
- Adequacy position of joint venture banks in Nepal.
- To provide suggestions and recommendation on the basis of findings and analyses to improve the financial weakness of commercial banks.

Findings:

- The cash and bank balance position with respect to total deposit has better performance in the case of NBBL and EBL due to readiness to serve its consumer deposit than other banks NABIL and HBL.
- NABIL and HBL get failed to utilize their funds in loans and advance but they get success to utilize their funds in investment and performing assets to maximize the returns and may lag behind the competitive market of banking
- The analysis shows that the ratios follow the fluctuating trend among all banks under study. The NBBL has highest ratio
- Highest ratio under study is record by NBBL. Finally it is concluded that the position of NABIL is better than other banks.
- Capital adequacy position of NABIL seems to be better than other banks under study.
- The growth model we may find out that growth rate of EBL on collection of funds and utilization of funds is more than others banks under study.
- During the reviewed period expected total credit of HBL will be highest.
- The growth rate of NABIL and EBL is in satisfactory level.

Recommendation:

- To follow liberal policy.
- To develop a special investment promotion unit for seeking new profitable investment opportunities and identifying promising small entrepreneurs lacking any contact and approach.

- They should be liberal in granting midterm loans.
- From the analysis of Profitability ratio it is concluded that the position of
- NABIL is better than other banks, thus other banks need to invest its funds in more profitable areas to generate more profit than NABIL.
- Commercial banks should operate new branches in non-representing urban areas for more deposits collection and more utilization of the funds as well as to increase their transactions and to provide financial services and facilities to more customers.
- To activate and encourage foreign investor

Niraula (2008) has made research on “*Impact of Budgeting on Profitability, A Case Study of Nepal Electricity Authority,*” and pointed out the following major findings and recommendations:

Objectives of the Study:

- To analyze the various functional budget of NEA
- To analyze the true picture of managerial budgeting adopted by NEA.
- To analyze the variance between budget and actual achievements of the authority.
- To point out the major shortcomings and recommend suggestive measures

Findings:

- Actual and budgeted sales are found to be significant but the difference between budgeted and actual production is found to be vague. In spite of the fact, there is perfect correlation between budgeted and actual sales and production respectively.
- NEA has adopted the practice of preparing strategic as well as tactical managerial budgeting, but even the strategic plan cannot play a vital role for its development.
- It is bearing a high fixed cost due to the technology that it is using till now, overstaffing and many more.
- Actual sales are always less than actual production due to power loss which is a main problem of NEA, which affects its profit directly.

- It has not classified its overhead systematically, which creates difficulties in analysis the expenses properly.
- The information system of NEA was not effective. The lower level staffs normally do not get information promptly and clearly. Instead of the fact, there is no any plan to develop an effective information system till now.
- NEA has no sufficient cash surplus to pay for expenditure; it was to borrow loan to meet minimum cash balance and we can say that it is the result of poor cash plan. And for that, it is paying a huge amount of interest in every year and the trend is of adding on it rather than of paying back.
- Account receivable and average collection period are found to be increasing within the study period. It is also upgrading the condition of cash shortage.
- NEA was unable to meet its BEP sales therefore it was in loss every year.
- There is a large possibility of earning a huge volume profit if its capacity is used at optimum level as the figure shown with the help of flexible budget.
- NEA has not maintained its periodic performance report systematically.
- Because of all those facts mentioned above, it is suffering from continuous loss.

Recommendations:

- NEA shall develop an efficient management system to get control over cost. It must classify the costs into fixed cost and variable to maintain the Accounting Standard.
- NEA shall restructure its capital and give emphasis over the internal financing so as to avoid burden of interest
- NEA should make realistic forecast.
- NEA shall give emphasize over cost volume profit relationship while developing the sales plan and strategy.
- NEA shall follow a strict credit collection policy to collect account receivable in time.
- Staffs who are themselves engaged in encouraging power leakage should be strictly demoralized.
- NEA should maintain its periodic performance report systematically.

- The political interference and role of interest group means should be sought out strictly.
- The authority shall maintain optimum level of staffs scientifically
- NEA should adopt standard costing system and also establish a cost control centre for cost control purpose.
- The authority should develop a proper co-ordination between budget formulation, implementation and evaluation of achievement.

Research Gap

All the research studies mentioned above are concerned with the study of profit planning system that too basically related to the planning system of Nepalese public enterprises. The findings and conclusion of all those studies like to be same. 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 “Impact of Budgeting in profitability of Nepal Electricity Authority”. It means, the scope of the study is to find or identify the role playing by Budgeting that is adopting or practicing currently by public enterprises in increasing their efficiency. And on the other hand, for this study, this study will analyze the efficiency through the comparative analysis of Income Statement as well as Sales volume and Revenue analysis because these are the determinant of profit earned or profitability of Nepal Electricity Authority. This study will also work to identify the various causes of generating loss, to analyze them and recommend practical suggestions to NEA.

CHAPTER – III

RESEARCH METHODOGY

3.1 Introduction

Research methodology is the way to solve the research problem in a systematic manner. It may be understood as a science of studying how research is done scientifically. Systematically and planned way of collection, analysis and interpretation of data are made to solve the research problem and accomplish basic objective of the study. This study is carried out to analyze, examine and interpret the budgeting, various functional budgets and its use in the process of planning profit and it's effectiveness in the public enterprise with the help of various financial statements, statistical tools etc. Research methodology is followed to achieve the objective of this research paper. The following contents of research methodology are followed to conduct the research on this subject matter.

3.2 Research Design

This study attempts to analyze and evaluate the budgeting procedure in relation to measuring analysis that is closely related with various functional budgets. In this context research design is the plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variance. Thus this study is descriptive and analytical in nature.

3.3 Population and Sample

The large group about which the generalization is made is called the population under study, or the universe and small portion on which the study is made is called the sample of the study. Nepal Electricity Authority is an only one electricity supplier of Nepal. Many hydropower companies are generating electricity but they have no authority to supply to a consumer that is why Nepal Electricity Authority is our population and sample as well.

3.4 Nature and Sources of Data

The significance of research depends on the nature, availability and accuracy of information. Data collection is the major task of the research work. The data is collected

from the secondary sources. Those sources used to collect the secondary data are as follows:

- Published and unpublished relevant document of NEA
- Magazines and booklets published half yearly, yearly etc by NEA
- Official records and similar other dissertations.

This study covered a period of the fiscal year from 060\061 to 064\065 as sample year. Data were taken from NEA and the analysis was made on the basis of these five years data.

3.5 Selection of Research Variables

In this study the following factors are used as research variables to meet the objective of the study.

- Budgeted sales volumes and revenues
- Actual Sales volume and revenue
- Budgeted profit and Actual Profit
- Budgeted expenditure and Actual Expenditure

3.6 Methods of Data Analysis

The collected data are arranged and presented in proper tables and formants. After arranging relevant data, they are analyzed by applying financial and statistical tools such as mean, standard deviation, graphs, diagrams, correlation, etc. so that the finding could be presented and interpreted properly and clearly. They are briefly explained below.

- **Bar Diagram**

Bar diagram are one of the easiest and the most commonly used methods of presenting the numerical data. They present the data by means of bars, or rectangles of equal width. The length of the bars represents the given figures and the width may be of any size.

- **Mean**

The sum of all the observations divided by the number of observations is called Mean. In such cases all the items are equally important. It is usually devoted by \bar{X} . It is defined by the following formula:

$$\text{Mean (X)} = \frac{\sum X}{N}$$

Where,

$\sum X$ = the sum of observations

N = no. of observation

- **Standard Deviation (S.D.)**

The standard deviation is defined as the positive root of the mean of the squared deviations from their mean of a set of values. It is also known as Root Mean Square Deviation. It is usually denoted by the Greek letter δ (Small Sigma)

The SD is calculated by the following formula:

$$SD = \sqrt{\frac{\sum (X - \bar{X})^2}{N - 1}}$$

- **Coefficient of Variation (CV)**

The relative measure of dispersion based on SD is called coefficient of SD. Thus,

$$\text{Coefficient of SD} = \frac{\delta}{\bar{X}}$$

100 times coefficient of SD is called coefficient of variation. It is denoted by C.V. thus,

$$CV = \frac{\delta}{\bar{X}} \times 100$$

- **Correlation Analysis**

The degree of relationship between two variables at a time is called correlation. In other words, two variables are correlated in such way that if one variable changes then other variables also changes subsequently.

It can be calculated by using following formula:

$$\text{Co-efficient of correlation (r)} = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2 \sum (Y - \bar{Y})^2}}$$

The correlation coefficient measures the degree of correlation between Y on X. It should be between +1 and -1. If not there is no correlation between two variables.

- **Coefficient of Determination (r^2)**

A meaningful analysis is available from the square of correlation coefficient (r^2), which is called the coefficient of determination and calculated using the following formula:

$$\text{Co-efficient of determination } (r^2) = r \times r$$

$$\text{Probable Error (P.E.)} = 0.6745 \times \frac{1-r^2}{\sqrt{N}}$$

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

This chapter deals with data presentation and analysis. Collected data has been presented in proper format to achieve the objective of the study. In order to accomplish the above objectives, descriptive and analytical research design has been followed, which are already mentioned in the third chapter. To analyze the relationship between budgeted and actual factors, various presentation and analysis have been done in this chapter.

However the study focused the relationship of budget with profitability of NEA that why we attach the data of entire NEA. We think it is necessary to compare the percentage of deviation between budgeted and actual integers as well as different statistical tools also. Under the accounting tools we have include variation analysis and under the statistical tools we have analyzed mean value , standard deviation , coefficient of variance, correlation between sales and others variables, correlation determination and probable error etc. In order to accomplish targeted objectives this analysis has been presented in the following topics

4.1 Analysis of Sales of NEA

NEA has the practice of preparing both short and long term budgets. According to the nature of customers, NEA has categorized its consumers like wise; domestic, commercial, industrial and so on. NEA has been preparing sales budget in units and rupees from its earlier stage of budgeting. In order to assess effectiveness of Sales budget, sales in both units and rupees have been compared with actual sales units and rupees. Thus, table 4.1 shows the budgeted sales actual sales and variations in units and percentage (%) as well as in rupees of last five years

Table 4.1
Budgeted and Actual Sales with Variance

Years	Sales in Units (in Millions)		Variation in Units	Deviation %	Remarks
	Budgeted	Actual			
2060/061	1906.622	1800.814	(105.81)	(5.55)	Unfavorable
2061/062	1988.85	1918.35	(70.50)	(3.54)	Unfavorable
2062/063	2145.48	2028.51	(116.97)	(5.45)	Unfavorable
2063/064	2362.342	2204.202	(158.14)	(6.69)	Unfavorable
2064/065	2421.048	2348.91	(72.14)	(2.97)	Unfavorable
Total	10824.342	10300.786	(523.56)	(4.84)	Unfavorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

The table no 4.1 shows that sales were not achieved during the study period. In the FY 2060/061 the budgeted sales of NEA was 1906.622 units in million and gradually increased up to 2421.048 units in million in FY 2064/065. On the other side the actual sales of the NEA in FY 2060/061 was 1800.814 units in million and reached to 2348.91 units in million in FY 2064/065. The annual unfavourable deviation is seemed to be neither less than 2.97 percent, nor more than 6.69 percent, which mean that the targeted or say budgeted sales were more than the actual sales units. Though, the practice of achieving the target is seemed to be increasing gradually with satisfactory manner.

Table 4.2
Budgeted and Actual Sales with Variance

Years	Sales Revenue (in millions)		Deviation in Rs	Deviation %	Remarks
	Budgeted	Actual			
2060/061	12825.732	11992.604	(833.13)	(6.50)	Unfavorable
2061/062	13275.383	12885.974	(389.41)	(2.93)	Unfavorable
2062/063	14260.339	13672.711	(587.63)	(4.12)	Unfavorable
2063/064	15638.122	14777.26	(860.86)	(5.50)	Unfavorable
2064/065	16220.944	16060.27	(160.67)	(0.99)	Unfavorable
Total	72220.52	69388.819	(2,831.70)	(3.92)	Unfavorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

As in Sales units the budgeted and actual sales revenue for the FY 2060/0601 was Rs 12325.732 million and Rs 11992.604 million and came to Rs 16220.944 million and

Rs 16060.27 million respectively in FY 2064/065. It shows us the trend of continuous increment in comparison to previous years. The highest unfavourable variance among the above data is 6.50 percent in the FY 2060/061 vice versa the lowest unfavourable variance among the above mentioned data is 0.99 percent of FY 2064/065. On the basis of above analysis, it can be said that NEA is unable to meet its targets in both units and amount. However, overall variances are less than 10%. Thus overall effectiveness of sales seems satisfactory.

4.2 Analysis of Income Statement of NEA

In order to find out the nature of variability of budgeted and actual, only sales Budget analysis is not sufficient that why this analysis has been done, it gives the information of budgeting trend as well as deviation percentage also in different budget headings like direct expenses, gross profit, other income, available income for operation, operating expenses, Profit from Operation, indirect expenses, net profit before tax, provision for tax and net Profit after tax. In Budgeting these mentioned factors directly affect on profitability. Hence attempt has been made to concise the income statement in this format whereas NEA's income statement's format is different. Here, this study include Generation expenses (including power purchase), Transmission expenses into Direct Expenses and Administrative Expenses, Provision for Losses on property, plant & equipment differed revenue expenditure written off, distribution expenses into operating expenses as well as Interest, depreciation, profit & loss on foreign exchange, prior year income & expenses, and capitalized overhead expenditure etc into indirect expenses. Annual comparison of budgeted and actual Income Statement figures have been summaries as follows: -

Table 4.3
Comparison of Income Statement

In millions Rs

Particulars	FY 2064/065		Deviation in Rs	Deviation %	Remarks
	Budgeted	Actual			
Net Sales	15,890.94	15,405.03	-485.914	-3.06	Unfavorable
Less: Direct Expenses	10,258.78	9,929.85	328.927	3.21	Favorable
Gross Profit	5,632.17	5,475.18	-156.987	-2.79	Unfavorable
Add: Other Income	902.6	655.24	-247.36	-27.41	Unfavorable
Available Income for Operation	6,534.77	6,130.42	-404.347	-6.19	Unfavorable
Less: Operating Expenses	3,223.38	2,523.56	699.818	21.71	Favorable
Profit from Operation	3,311.39	3,606.86	295.471	8.92	Favorable
Less: Indirect Expenses	5,089.30	4,919.02	170.28	3.35	Favorable
Net Profit Before Tax	-1,777.91	-1,312.16	465.751	26.2	Favorable
Less: Provision for Tax	0.000	0.000	0		
Net Profit After Tax	-1,777.91	-1,312.16	465.751	26.2	Favorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

Table 4.3 indicates the comparative income statement between budget and actual for the fiscal year 2064/065. In this income statement budgeted and actual gross profits are positive by Rs 5632.167 million and 5475.180 million respectively as well as operating profit also positive by 3311.389 million and 3606.860 million respectively. But net profits before tax and after tax both are negative by 1777.9114 million and 1312.160 million respectively. Here provision for tax or tax paid amount is nil so that net profit before tax and after tax are equal. It means NEA is unable to generate enough income to cover its expenses in case of operating expenses, budgeted and other income estimate seems pessimistic. While other estimated variables are optimistic.

Actually the income indicators accounting headings (net sales, gross profit, other income, available income for operation,) have unfavorable deviation except profit from operation, net profit before & tax net profit after tax which is lowest 2.79 percent and highest 27.41 percent vice-versa most of the expenditure indicators accounting headings (direct expenses, operating expenses & indirect expenses) have

favorable deviation which is the lowest by 3.21 percent and the highest by 21.71 percent, this vast deviated result clearly shows more optimistic in the income and more pessimistic in the expenditure while preparing budget for the FY 2064/065. Actual operating and indirect expenses are comparatively less than budgeted, it means NEA either enable to control these expenditure or pessimistic budget estimate.

Table 4.4
Comparison of Income Statement

In millions Rs

Particulars	FY 2063/064		Deviation in Rs	Deviation %	Remarks
	Budgeted	Actual			
Net Sales	15,315.62	14,449.73	-865.89	-5.65	Unfavorable
Less: Direct Expenses	9,598.35	9,034.56	563.785	5.87	Favorable
Gross Profit	5,717.28	5,415.17	-302.11	-5.28	Unfavorable
Add: Other Income	728	1,016.61	288.61	39.64	Favorable
Available Income for Operation	6,445.28	6,431.78	-13.497	-0.21	Unfavorable
Less: Operating Expenses	2,519.92	2,313.98	205.938	8.17	Favorable
Profit from Operation	3,925.36	4,117.80	192.441	4.9	Favorable
Less: Indirect Expenses	5,050.00	3,803.61	1,246.39	24.68	Favorable
Net Profit Before Tax	-1,124.64	314.19	1,438.83	127.94	Favorable
Less: Provision for Tax					
Net Profit After Tax	-1,124.64	314.19	1,438.83	127.94	Favorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

Table 4.4 shows the comparative income statement between budget and actual for the fiscal year 2063/064. In this income statement budgeted and actual gross profits are positive by Rs 5,717.277 million and Rs 5,415.170 million respectively as well as operating profit also positive by Rs. 3925.359million and Rs. 4117.800 million respectively. Budgeted net profits before tax and after tax both are negative by Rs.1124.64 million each but actual net profits before tax and after tax both are positive by Rs.314.190 million. Here provision for tax or tax paid amount is nil so that net profit before tax and after tax are equal.

Most of the accounting income indicators have unfavorable deviation except net profit before & tax net profit after tax which is lowest 0.21 percent and highest 5.65 percent vice-versa most of the expenditure indicators accounting headings have favorable

deviation which is the lowest by 4.90 percent and the highest by 39.64 percent. This high deviated result clearly shows optimistic in the income and highly pessimistic in the expenditure while preparing budget for the FY 2063/064. In this year NEA can either enable to control efficiently to indirect expenses or budget estimate so that NEA earn little bit profit because of either contribution of other income or effective use of operating expenses. However all performance seems effective as compared to previous year.

Table 4.5
Comparison of Income Statement

in millions Rs

Particulars	FY 2062/063		Deviation in Rs	Deviation %	Remarks
	Budgeted	Actual			
Net Sales	13,940.84	13,331.90	-608.94	-4.37	Unfavorable
Less: Direct Expenses	8,393.75	8,332.70	61.051	0.73	Favorable
Gross Profit	5,547.09	4,999.20	-547.89	-9.88	Unfavorable
Add: Other Income	600	639.9	39.9	6.65	Favorable
Available Income for Operation	6,147.09	5,639.10	-507.99	-8.26	Unfavorable
Less: Operating Expenses	2,204.45	2,123.20	81.247	3.69	Favorable
Profit from Operation	3,942.64	3,515.90	-426.74	-10.82	Unfavorable
Less: Indirect Expenses	6,015.08	4,783.70	1,231.38	20.47	Favorable
Net Profit Before Tax	-2,072.44	-1,267.80	804.635	38.83	Favorable
Less: Provision for Tax					
Net Profit After Tax	-2,072.44	-1,267.80	804.635	38.83	Favorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

Above comparative income statement depicts budget and actual income statement for the fiscal year 2062/063. According to this table, NEA is unable to meet targeted gross profit. In this case, loss has been recovered because of decrease in indirect expenses and operating expenses. The NEA overall budget effectiveness has been found satisfactory except in case of indirect expenses.

Table 4.5 explained the budgeted and actual Gross Profits are positive by Rs 5547.088 million and Rs 4999.200 million respectively as well as operating profit also positive by Rs. 3942.641 million and Rs. 3515.900 million respectively. Budgeted and Actual

net profits before tax and after tax both are negative by Rs.2072.435 million and 1267.800 respectively. Here provision for tax or tax paid amount is nil so that net profit before tax and after tax are equal. Specially, most of the income variables have unfavourable deviation except other income, net profit before& tax net profit after tax which is lowest 4.34 percent and highest 10.82 percent vice-versa most of the expenditure indicators lie direct expenses, operating expenses & indirect expenses have favourable deviation which is the lowest by 0.73 percent and the highest by 20.47 percent, this vast deviated result clearly shows more optimistic in the income and highly pessimistic in the expenditure while preparing budget for the FY 2062/063. In this year NEA can enable to control efficiently to indirect expenses and other incomes so that NEA earn less actual loss then budgeted because this table shows actual lose is less than the budgeted and difference of budgeted and actual Indirect expenses is high by Rs 1231.376 million.

Table 4.6
Comparison of Income Statement

In millions Rs

Particulars	FY 2061/062		Deviation in Rs	Deviation %	Remarks
	Budgeted	Actual			
Net Sales	13,018.05	12,605.20	-412.85	-3.17	Unfavorable
Less: Direct Expenses	7,290.00	7,462.40	-172.4	-2.36	Unfavorable
Gross Profit	5,728.05	5,142.80	-585.25	-10.22	Unfavorable
Add: Other Income	627	617.5	-9.5	-1.52	Unfavorable
Available Income for Operation	6,355.05	5,760.30	-594.75	-9.36	Unfavorable
Less: Operating Expenses	2,096.26	2,106.60	-10.343	-0.49	Unfavorable
Profit from Operation	4,258.79	3,653.70	-605.09	-14.21	Unfavorable
Less: Indirect Expenses	5,960.93	4,966.50	994.43	16.68	Favorable
Net Profit Before Tax	-1,702.14	-1,312.80	389.336	-22.87	Unfavorable
Less: Provision for Tax			0		
Net Profit After Tax	-1,702.14	-1,312.80	389.336	-22.87	Unfavorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

Table 4.6 compares budgeted and actual income statement's figures. In this income statement both gross profits are positive by Rs 5728.051million and Rs 5142.800 million respectively as well as operating profit also positive by Rs. 4258.794 million

and Rs. 3653.700 million respectively. But budgeted and actual net profits before tax and after tax both are negative by Rs.1702.136 million and 1312.800 respectively. Here provision for tax or tax paid amount is nil so that net profit before tax and after tax are equal. According to this table, NEA is unable to meet its gross profit target because of both decrease in sales and increase in direct expenses.

Net sales, gross profit, available income for operation, profit from operation, other income, net profit before tax, net profit after tax have unfavourable deviation which is lowest 1.52 percent and highest 22.87 percent via the expenditure indicators accounting headings direct expenses, operating expenses have unfavourable by 2.36 percent and 0.49 percent respectively but indirect expenses have favourable deviation which is 16.68 percent, this result shows more optimistic while preparing budget for the FY 2061/062. In this year NEA can enable to control efficiently to indirect expenses so that NEA still unable to earn profit because of decreasing sales and no effective control of expenses throughout the budget period as previous year.

Table 4.7
Comparison of Income Statement

In millions Rs

Particulars	FY 2060/061		Deviation in Rs	Deviation %	Remarks
	Budgeted	Actual			
Net Sales	12,585.73	11,874.70	-711.03	-5.65	Unfavorable
Less: Direct Expenses	6,800.05	6,765.40	34.65	0.51	Favorable
Gross Profit	5,785.68	5,109.30	-676.38	-11.69	Unfavorable
Add: Other Income	600	671.4	71.4	11.9	Favorable
Available Income for Operation	6,385.68	5,780.70	-604.98	-9.47	Unfavorable
Less: Operating Expenses	1,797.88	1,865.20	-67.32	-3.74	Unfavorable
Profit from Operation	4,587.80	3,915.50	-672.3	-14.65	Unfavorable
Less: Indirect Expenses	5,698.29	5,401.60	296.69	5.21	Favorable
Net Profit Before Tax	-1,110.48	-1,486.10	-375.62	-33.82	Unfavorable
Less: Provision for Tax	0	274.2	-274.2		
Net Profit After Tax	-1,110.48	-1,760.30	-649.82	-58.52	Unfavorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

Above table 4.7 indicates the comparative income statement between budget and actual for the fiscal year 2060/061. According to this table budgeted and actual gross profits are positive by Rs 5,785.682 million and Rs 5,109.300 million respectively as

well as operating profit also positive by Rs. 4,587.804 million and Rs. 3,915.500 million respectively. Budgeted and Actual net profits before tax both are negative by Rs 1,110.483 and 1,486.100 respectively via net profit after tax are also negative by Rs.1,110.483 million and 1,760.300 respectively. Here net profits before tax and after tax are not equal because of actual provision for tax or tax paid amount is Rs 274 million.

Analyzing above table shows most of the income headings net sales, gross profit, available income for operation, profit from operation have unfavorable deviation except other income, net profit before & tax net profit after tax which is lowest 5.65 percent and highest 58.52 percent but other income has favorable deviation by 11.90 percent vice-versa most of the expenditure indicators accounting headings have favorable deviation except operating expenses which are 0.51 and 5.21percent but operating expenses has unfavorable deviation by 3.74 percent, this vast deviated result clearly shows more optimistic in the income and highly pessimistic in the expenditure while preparing budget for the FY 2060/061. In this year NEA can enable to control efficiently to indirect expenses and other incomes.

Table 4.8
Comparison of Overall Income Statement
From the FY 2060/061to FY2064/065

In millions Rs

Particulars	Bud Mean	Act. Mean	Deviation in Rs	Deviation %	Remarks
Net Sales	70,751.19	67,666.56	-3,084.63	-4.36	Unfavorable
Less: Direct Expenses	42,340.92	41,524.91	816.01	1.93	Favorable
Gross Profit	28,410.27	26,141.65	-2,268.62	-7.99	Unfavorable
Add: Other Income	3,457.60	3,600.65	143.05	4.14	Favorable
Available Income for Operation	31,867.87	29,742.30	-2,125.57	-6.67	Unfavorable
Less: Operating Expenses	11,841.88	10,932.54	909.34	7.68	Favorable
Profit from Operation	20,025.99	18,809.76	1,216.23	6.07	Favorable
Less: Indirect Expenses	27,813.59	23,874.43	3,939.16	14.16	Favorable
Net Profit Before Tax	-7,787.61	-5,064.67	2,722.94	34.96	Favorable
Less: Provision for Tax	0	274.2	274.20		
Net Profit After Tax	-7,787.61	-5,338.87	2,448.74	31.44	Favorable

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

Table 4.8 gives the information of overall comparative income statement between budget and actual from the fiscal year 2060/061 to 2064/065. According to this table, NEA is unable to meet sales target that has been main reason for overall loss in the last five year. In order to decrease in actual loss of NEA with comparison of budget, the major role is played by the indirect expenses. However it can be said that NEA used its budget effectively to meet its target

4.3 Statistical Analysis of Sales

In order to find out the nature of variability of budgeted and actual sales of different years, it is necessary to find out the different statistical calculations such as arithmetic mean, standard deviation and co-efficient of variance. The detail results of those statistical tools in case of NEA as per the scope of our study are presented in Appendix. The summaries of those results are as follows: -

Table 4.9
Relationship of Budgeted and Actual Sales

Statistical Tools	Budgeted Sales (Unit in million)	Actual Sales (Unit in million)
Mean (\bar{X})	2164.864	2060.157
Standard deviation (σ)	225.096	219.372
C.V.	10.397%	10.648%

The table no. 4.9 shows the mean of budgeted sales is 2,164.864 unit in million where as of the actual sales is 2,060.157 unit in million. Coefficient of variations of budgeted sales is 10.397 percent and of actual sales is 10.648 percent. The variation of actual sales is greater than that of budgeted sales due to the high fluctuation in the FY 2063/064 and 2064/065. The deviated value of budgeted sales is 225.096 which is greater than the standard deviation of actual sales i.e. 219.372 units in million. We can also present the above data with the help of following figure:

Figure 4.1

Budgeted Sales vs. Actual Sales of NEA

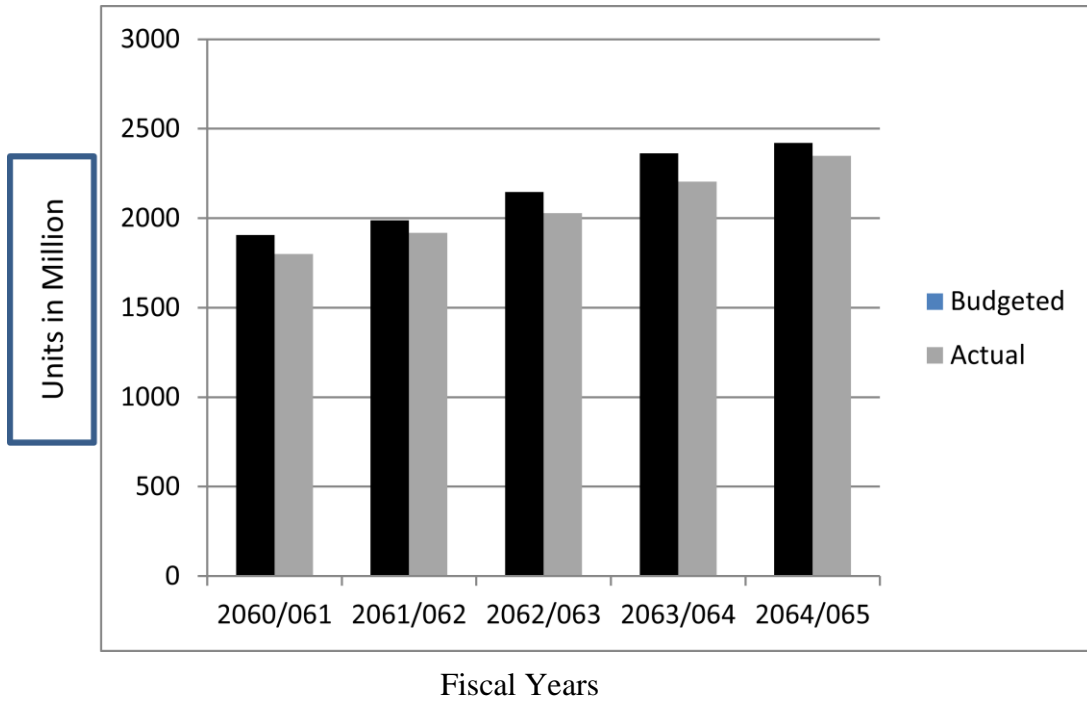
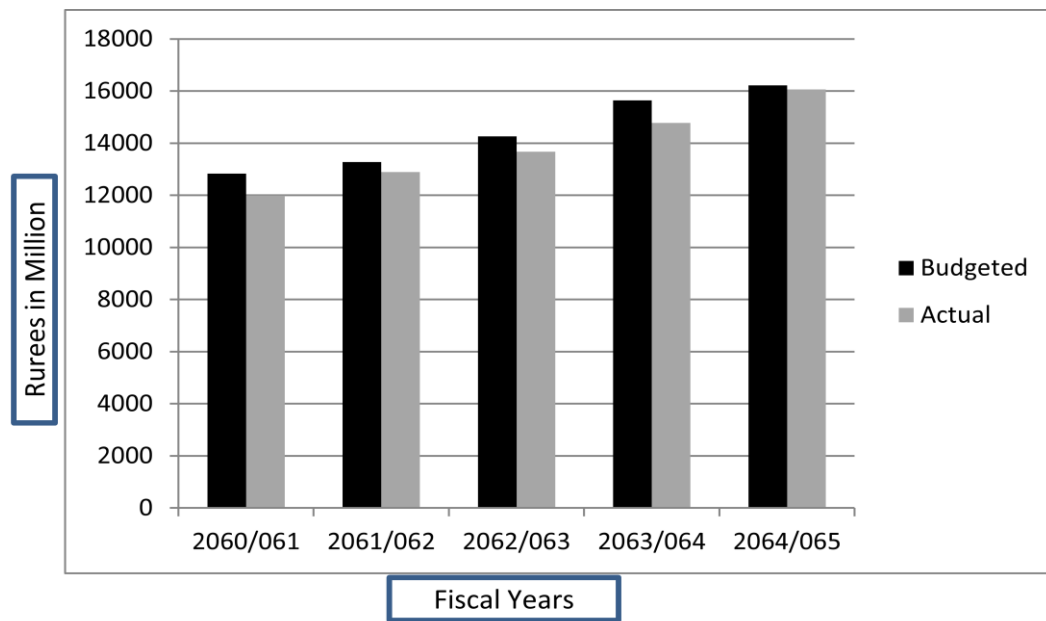


Figure 4.2

Budgeted Sales Vs Actual Sales of NEA



The above graphical presentations also justify the gradual increment of budgeted as well as actual sales during the period. However NEA has unable to meet its target sales.

4.3.1 Correlation Coefficient between Actual Vs Budgeted Sales

Another statistical tool to analyze the relationship between actual and budgeted sales is correlation of coefficient. It can be find with the help of Karl Pearson Coefficient of Correlation and is denoted by (r). The coefficient of correlation measures the degree of association between budgeted and actual figure. If an actual sale is as like as budgeted, it is proved that there is positive correlation and vice versa. To find out of the value of (r), the budgeted sales is to be assumed as independent (X) and actual sales as dependent variable (Y).

The calculated value of correlation (r_{ay}) is 0.9871 percent (See Appendix-1). It proves that there is highly positive correlation between independent and dependent variable. It means that both the actual and budgeted sales are correlated with each other by more than 97 percent. The significant correlation indicates that the actual condition and the budgeted condition of NEA are signification. For this significance of (r) should be tested by the help of probable error. By the calculation we can find out the value of probable error 0.0077. It means that, only 0.77 percent of an error items are included, but the value of r is greater than the calculated Probable error. Thus the value of r is significant and proved to be highly positive correlation.

4.4 Relationship between Sales and Other Income Statement Variables

In order to analysis the relationship between sales and other variables, various statistical indices like mean, standard deviation, coefficient of variance, correlation, correlation determination and probable error have been computed and stated in table 4.10 and 4.11 which are as follows:-

Table 4.10
Comparative Budgeted Income Statement with Statistical Calculation
For the Fiscal Year 2060/061 to 2064/065

Fiscal Year	Net Sales	Direct Expenses	Gross Profit	Other Income	Income for Operation	Operating Expenses	Profit from Operation	Indirect Expenses	Net Profit Before Tax	Provision For Tax	Net Profit After Tax
2064/65	15,890.944	10,258.777	5,632.167	902.600	6,534.767	3,223.378	3,311.389	5,089.300	(1,777.911)		(1,777.911)
2063/64	15,315.622	9,598.345	5,717.277	728.000	6,445.277	2,519.918	3,925.359	5,050.000	(1,124.641)		(1,124.641)
2062/63	13,940.839	8,393.751	5,547.088	600.000	6,147.088	2,204.447	3,942.641	6,015.076	(2,072.435)		(2,072.435)
2061/62	13,018.051	7,290.000	5,728.051	627.000	6,355.051	2,096.257	4,258.794	5,960.930	(1,702.136)		(1,702.136)
2060/61	12,585.732	6,800.050	5,785.682	600.000	6,385.682	1,797.878	4,587.804	5,698.287	(1,110.483)		(1,110.483)
Total	70,751.188	42,340.923	28,410.265	3,457.600	31,867.865	11,841.878	20,025.987	27,813.593	(7,787.606)		(7,787.606)
Mean	14,150.24	8,468.185	5,682.053	691.520	6,373.573	2,368.376	4,005.197	5,562.719	(1,557.521)		(1,557.521)
Std Dev	1,428.42	1,471.378	93.273	129.229	143.971	543.227	473.128	465.989	424.809		424.809
C. V	10.09	17.375	1.642	18.688	2.259	22.937	11.813	8.377	(27.275)		(27.275)
(r)sales Vs. other		0.998	(0.435)	0.874	0.503	0.934	(0.920)	(0.818)	(0.126)		(0.126)
r²		0.997	0.189	0.764	0.253	0.873	0.846	0.670	0.016		0.016
PE		0.001	0.245	0.071	0.225	0.038	0.046	0.100	0.297		0.297

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

According to table 4.10, it seems that high standard deviation on budgeted net sales and direct expenses these are Rs 1428.42 and Rs 1471.378 in millions respectively but other budgeted variables are less with the comparison of budgeted net sales and direct expenses, these are Rs 93.273, Rs 129.229, Rs 143.971, Rs 543.227, Rs 473.128, Rs 465.989, Rs 424.809 and Rs 424.809 in millions respectively to gross profit, other income, available income for operation, operating expenses profit from operation, indirect expenses, net profit before tax and net profit after tax but there is no tax amount so that budgeted net profit before tax and after tax have same standard deviation. The standard deviation is defined as the positive root of the mean of the squared deviation from their mean of a set of values. It is also known as root Mean Square Deviation. In order to this situation, it illustrates the high root mean square deviation on budgeted net sales and direct expenses.

On the other hand, coefficient of variance shows the relative measurement of dispersion based on SD. Thus table indicates maximum 27.275 % CV on budgeted net profit before tax and after tax vice versa least on gross profit 1.642%, it shows the highly varied budgeted net profit and low varied gross profit. Here budgeted net sales, direct expenses, other income, operating expenses, profit from operation, net profit before tax and after tax have more than 10% coefficient of deviation though gross profit, available income for operation and indirect expenses have less than 10% deviation.

Correlation analysis shows the degree of relationship between two variables at a time. In other words, two variables are correlated in such way that if one variable changes then other variables also changes subsequently. Hence it has been tried to analysis correlation between budgeted net sales and other budgeted variables. Correlation between budgeted net sales and direct expenses, other income, operating expenses are highly correlated these are 0.998, 0.874 and 0.934 respectively. Then correlation between budgeted sales and available income for operation has moderate degree but between budgeted net sales and gross profit, profits from operation, indirect expenses, then net profit before and after tax have negative correlation, it means if budgeted net sales increase but other variables are not increase in same rate. On the other hand, coefficient of determination gives the information of square correlation coefficient or percentage of correlation. In this case budgeted direct expenses, operating expenses

and gross profit correlated to budgeted net sales by 99.10% , 96.10% and 82.10 % accordingly which are highly correlated but budgeted net sales has less coefficient of determination with budgeted net profit before and after tax as well as gross profit , these are 1.16% and 18.90 % only. While calculating correlation and coefficient of determination, some error will be occurred that why we have to calculate the probable error to know the error mixed on calculation, here between budgeted net sales and budgeted direct expenses , gross profit , other income , available income for operation, operating expenses , profit from operation , indirect expenses , net profit before and after tax have 0.1%,24.50%, 7.10% , 22.50% , 3.80% , 4.60% , 1% , 29.70% and 29.70% respectively.

Table 4.11
Comparative Actual Income Statement with Statistical Calculation
For the Fiscal Year 2060/061 to 2064/065

In Million

Fiscal Year	Net Sales	Direct Expenses	Gross Profit	Other Income	Income for Operation	Operating Expenses	Profit from Operation	Indirect Expenses	Net Profit Before Tax	Provision For Tax	Net Profit After Tax
2063/64	14,449.730	9,034.560	5,415.170	1,016.610	6,431.780	2,313.980	4,117.800	3,803.610	314.190		314.190
2062/63	13,331.900	8,332.700	4,999.200	639.900	5,639.100	2,123.200	3,515.900	4,783.700	(1,267.800)		(1,267.800)
2061/62	12,605.200	7,462.400	5,142.800	617.500	5,760.300	2,106.600	3,653.700	4,966.500	(1,312.800)		(1,312.800)
2060/61	11,874.700	6,765.400	5,109.300	671.400	5,780.700	1,865.200	3,915.500	5,401.600	(1,486.100)	274.200	(1,760.300)
Total	52,261.530	31,595.060	20,666.470	2,945.410	23,611.880	8,408.980	15,202.900	18,955.410	(3,752.510)	274.200	(4,026.710)
Mean	10,452.306	6,319.012	4,133.294	589.082	4,722.376	1,681.796	3,040.580	3,791.082	(750.502)	54.840	(805.342)
Std Dev	1,098.020	992.180	176.691	188.142	358.037	183.920	268.608	675.215	840.166		908.210
C. V	10.505	15.701	4.275	31.938	7.582	10.936	8.834	17.811	(111.947)	0.000	(112.773)
(r)sales Vs. other		0.991	0.651	0.798	0.740	0.956	0.332	(0.979)	0.893	0.000	0.935
r²		0.982	0.423	0.636	0.548	0.913	0.110	0.958	0.797	0.000	0.874
PE		0.006	0.174	0.110	0.136	0.026	0.268	0.013	0.061	0.302	0.038

Sources: - Annual Report and Budget Book of NEA, From 2060/61 to 2064/65

As per table 4.11 we can analysis the different statistical tools to interpreted actual income statement of NEA from the fiscal year 2060/061 to 2064/065. As a result, we get standard deviation Rs 1413.869 and Rs 1250.351 in millions on actual net sales and direct expenses respectively. Although other variables of actual income statement (gross profit, other income, income for operation, operating income, profit from operation, indirect expenses, net profit before tax and after tax) are gotten less standard deviation which are Rs 206.051, Rs 166.925, Rs 626.328, Rs 246.721, Rs 248.253, Rs 590.279, Rs 746.585, and Rs 798.309 in millions respectively. Hence the net sales has more deviation then other variables as well as direct expenses is a second followers but trend of gross profit is lower varied.

The highest coefficient of variance shows the highest degree of variance vice versa the lowest coefficient of variance indicates the lowest degree of variance. On this table, actual net profit after tax and before tax got the highest variance 74.764% and 73.705% accordingly. On the other hand, gross profit and available income for operation has least CV, these are 3.941% and 5.486 % respectively and also profit from operation has less than 10% coefficient of variance that is generally accepted. But other variables are gotten more than 10% whereas a net sale is a follower of accepted coefficient of variance that has only 10.447%.

On the hand, we analyze the correlation between actual net sales and other variables; it shows the relationship of net sales to other and how much other variables depends on sales. As a result direct expenses, operating expenses and gross profit have highly positive correlation with net sales these are 0.996, 0.980 and 0.821 and income for operation has moderate positive correlation. But other income, net profits before tax and after tax have low positive correlation with net sales these are 0.363, 0.419 and 0.493 but profit from operation has low negative correlation as well as indirect expenses has negative correlation but it is moderate. To determine the degree of correlation, we have to analyze coefficient of determination. This table shows the high percentage of correlation on direct expenses and operating expenses 99.10% and 96.10% respectively. But profit from operation has extremely less correlation by 0.2% though other variables have more than 10% correlation. While calculating correlation some error will be found due to other factors affect that why we have to calculate the probable error also. On the calculating correlation of net sales with direct expenses

and operating expenses there are almost no error that means less error only by 0.30% and 1.20% respectively. And gross profit has less than 10% error but rest variables have more than 10% probable error that is not good.

4.5 Major Findings of the Study

Based on above analysis, the study pointed the following major findings of NEA in relation to its profitability and budget is presented below:-

- Actual and budgeted sales are found unfavourable throughout to be the period. Hence the variance is not more than 10%.
- NEA has adopted the practice of preparing strategic as well as tactical managerial budgeting, but even the strategic plan cannot play a vital role for its development.
- Most of the fiscal year got net loss but actual net losses are less than the budgeted net loss. As a result, we can say that NEA's budget is enabled to get favourable variance on net loss.
- On the view point of tax, NEA paid tax on only one sample year which amount is Rs 274 in millions for the year 2060/061. After that NEA is operating at loss.
- In the comparison of income statement from 2060/061 to 2064/065 most of the income variables have unfavourable variance from 0.21% to 58.52 %.
- Net profit after tax got favourable deviation on the cumulative income statement that is 31.44%.
- Trend of sales is gradually increased on budget and actual figures in the study period. However, NEA is unable to meet its budget.
- Both budgeted or actual sales and direct expenses got more standard deviation which is Rs 1,428.42, Rs 1,471.378 and Rs 1, 4140.869, Rs 1,250.351 in millions.
- High coefficient of variance is on actual net profit after and before tax by 74.764% and 73.705% respectively as well as budgeted is follower these are 27.275% each.
- Correlation between budgeted net sales and direct expenses , other income , operating expenses are highly positive correlated but budgeted gross profit , profit from operation , indirect expenses , net profit before and after tax have

negative correlation , out these profit from operation and indirect expenses have highly negative correlation these are (9.92) and (0.818) respectively.

- But correlation between actual net sales and direct expenses ,gross profit, operating expenses have highly positive correlation these are 0.996 , 0.821 and 0.98 respectively though actual profit from operation , indirect expenses have negative correlation
- Coefficient of determination shows almost perfect correlation between budgeted sales and budgeted direct expenses by 99.70% via between actual sales and actual direct expenses by 99.10%.

CHAPTER -V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Public enterprises play a vital in the development of an economy. The role of public enterprises differs from country to country basically due to political philosophy of existing government. Usually it comes into existence either by the way of deliberating policy of the government to bring certain activities. In Nepal, the purpose of establishing Public enterprises was to make control over economy and to generate revenue to the government by providing basic goods services that are neglected by the private sector, to the citizens. They are found to be success in their goals basically up to the government launched the policy of free economy.

Budgeting is the important tool of business operation. It helps to achieve objectives and goals to the enterprise. Profit is the essential part of every business organization. What we said earlier was that without profit, any enterprises cannot run for long term as a living being can not live even a second without blood.

Time dimension is one of the important considerations for budgeting. There are mainly two types of budgeting that are being prepared and are: Strategic plan for 5 or more than five years and the tactical plan for the period of one year. Both of them are considered to be equally important for effective implementation. On the other hand difference between actual and budgeted figure shall be noted strictly to take corrective action immediately to get the desired profit in future.

Nepal Electricity Authority is a public utility enterprise, which provides relevant services to the Nepalese. Since a public utility concern bears public interest, managerial budgeting system deserves the top most attention.

Now a day's NEA has been facing different types of problem such as a huge amount of account receivable, less utilization of capacity and power loss etc. which force to reduce its efficiency day by day, normally reflects from the condition of loss.

The main objective of the present study is to examine the current practice, application and the result of budgeting approach in Nepalese Public Enterprises by taking a case study of NEA.

5.2 Conclusion

After analyzing in detail in relation to the present practice of managerial budgeting process and its impact in profitability in Nepalese Public Enterprises by taking a case study of NEA, this study reached into conclusions stated as below:

- Actual and budgeted sales are found to be significant variance though variance has not more than 10% in amount and units also. But there is perfect correlation between budgeted and actual sales.
- NEA has adopted the practice of preparing strategic as well as tactical managerial budgeting, but even the strategic plan cannot play a vital role for its development.
- Most of the fiscal year got net loss but actual net losses are less than the budgeted net loss. As a result, we can say that NEA's budget is enabled to get favourable variance on net loss.
- On the view point of tax, NEA paid tax on only one sample year 2060/061. After that NEA operate at loss.
- In the comparison of income statement from 2060/061 to 2064/065 most of the income variables have unfavourable variance.
- Net profit after tax got favourable deviation on the cumulative income statement
- Trend of sales is gradually increased on budget and actual
- The standard deviation of budgeted, actual sales and direct expenses are found higher.
- High coefficient of variance is found on actual net profit after and before tax. However, it is found lower in budget.
- Correlation between budgeted net sales and direct expenses, other income, operating expenses are highly positive correlated but budgeted gross profit, profit from operation, indirect expenses, net profit before and after tax have negative correlation, out these profit from operation and indirect expenses have highly negative correlation.

- But correlation between actual net sales and direct expenses, gross profit, operating expenses has highly positive correlation though actual profit from operation, indirect expenses has negative correlation.
- Coefficient of determination shows almost perfect correlation between budgeted sales and budgeted direct expenses via between actual sales and actual direct expenses
- NEA has no practice of preparing monthly budget, which is assumed to be the key of overall budgeting.

5.3 Recommendations

Most of the above conclusion points are seemed to be unfavourable; those should be made correction as soon as possible. According to above conclusions, this study strongly suggest NEA and to all of the Nepalese Public Enterprises who are facing the above mentioned problems respectively.

- NEA shall develop an efficient management system to get control over cost. It must classify the costs into fixed cost and variable to maintain the Accounting Standard.
- To achieve the targeted growth rate in sales revenue, NEA should make realistic forecast. Sales forecasting should be made after analyzing all variables that affect the sales. NEA should consider demand determinants such as family income, price of electricity, cost of alternative power, cost of auto generation of electricity and reliability of NEA service.
- NEA shall follow a strict credit collection policy to collect account receivable in time because it helps to reduce the burden of working capital.
- NEA shall utilization its optimum capacity by importing the latest technology around the world and by making a group of management standby for it.
- Electricity loss is increasing each year, which is a main cause of reducing sales revenue. So, leakage of the electricity shall be controlled promptly. The most important aspect is to motivate its employees engaged in transmission and distributions line to control the leakage. Staffs who are themselves engaged in encouraging power leakage should be strictly demoralized.
- NEA should adopt standard costing system and also establish a cost control centre for cost control purpose.

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