CHAPTER-ONE

INTRODUCTION

1.1 General Background of the Study

Nepal is a small and beautiful landlocked country enriched by nature. It is surrounded by China to the north and India to the south, east and west side. It is located in the central part of Asia and it has a total area of one lack fourty seven thousand one hundred and eighty one square kilometer (1, 47,181 km^2) extended from east to west with an average length of about eight hundred and eighty five kilometer (885 km) and with average width of one hundred and ninety three kilometer (193 km) from north to south. The country Nepal captures 0.3% area of Asia and 0.03% area of whole world. It is very famous for its high and beautiful glistering Himalayans ranging from 16,000 feet to the highest mountain of the world called Mt. Everest of 8,848 meter and diversity in natural beauty, cast, religion, culture, language, archaeology etc. The whole country is divided into five regions, fourteen zones, and seventy five districts and constructed by two prominent religions Hindu and Buddhism. Out of the total population, maximum people (more than 80%) are bound with Hindu Religion, around 10% are Buddhists and rest are the followers of other religions such as Islam, Kirat, Jainism, Christianity, Sikhism and others.

Nepal is generally known as one of the least developed countries around the world. Over 85% people of the country live in the rural area and the population growth rate is above 2% per annum which has increased high dependency ratio. It has predominantly agrarian economy where more than 80% of economically active population is estimated to be involved in agriculture. Farming is the main economic activity but only a small proportion of land is cultivated for agriculture. Though agriculture is the main source of employment and national income, about 38% people of the total population live below the absolute poverty line. The growth rate of economic status of the country is low and very slow. Since per capita income, saving, capital formation is very low the living standard of people is in decreasing trend. Hereby, there is a great challenge to the nation to eliminate such massive poverty existing in the country through gradual development of the industrial sector and to provide basic needs to the people. The reason behind Nepal's underdeveloped economy is not due to the lack of resources but it is actually due to lack of utilization of available resources in an efficient manner. Although Nepal is poor in mineral resources but it is very rich in huge potential for hydro-electric-power. Improvement of economic growth and solving the problem of underdeveloped economy are widely depended on the nature of its economic infrastructures. Several concrete programs should be brought by the nation and it can then only be result oriented when the country will follow the path of industrialization. Industrialization is one of the major and prominent activities which can play vital role in the economic development of the country. It is equally essential for both the developed and under developed countries.

The history of industrial development in Nepal begins only after the Democracy of 2007 B.S. After the introduction of Democracy, the Government felt the need of the industrialization and started some public enterprises. The changing political situation changed its industrial policy. In 1992 industrial policy was declared and this policy is liberal in respects of registration and other official procedures. Government gave preference for the privatization of companies during various plan periods. During these periods some public enterprises were liquidated, some were amalgamated, some were privatized and some are still in operation. After private sector's investment as well as foreign investment was encouraged, private investment was increased in almost all area of industries. Then most of the industries were established in the private sector.

Nebico Private Limited is one of the industries established in private sector investment in that time. It is the oldest and pioneer biscuits and confectioneries manufacturing industry in Nepal which was established in the year 1966 A.D. but actually came into operation only in 1967. It is situated in Balaju Industrial District, Kathmandu, Nepal and has occupied over one bigha (approximately 13 ropani) of Land. Nebico has been manufacturing different types of qualitative biscuits and confectioneries. All the products manufactured by the company are marketed throughout the country. From the early beginning days it has gained a special status among the Nepalese competitors as a qualitative biscuits and confectioneries manufacturer.

The company has so many objectives but the basic and ultimate objective of the company is to maximize profit over the long term consistency with its social responsibility. Profit is actually considered as a prominent aspect of an organization which determines the financial position, liquidity and solvency of the organization. Profit is the primary measure of success and to get success, any organization should operate its overall activities more effectively, efficiently and economically. Profit is a means of maintaining health, growth and continuity of the business. Hereby, profit is so essential that no organization can survive in the long term business without profit. The source of management is always depended on proper planning and without proper planning the predetermined organizational goals and objectives can not be achieved. So, the management should be focused on proper planning and should perform its overall functions within a certain framework of effective planning. One of the most prominent and effective tool of the overall planning and controlling functions of management is Budgeting System.

The process of planning future business actions and expressing those plans in a formal manner is called budgeting. It serves to coordinate the organization's overall activities efficiently. It is a vital part of good planning. Budget is a comprehensive and coordinated plan of action expressed in financial terms for the specified period of time in future. Budgeted programs are so designed that the variety of function like planning, evaluating performances, coordinating activities, implementing plans, communicating, motivating and authorizing actions, can be carried out in the organization. Hereby, Budget is viewed as a process designed to help management effectively perform significant phases of the overall planning and controlling function. No organization can achieve its goals and objectives without properly assigning budgeting system in the overall management functions. Budget is a prominent tool to analyze entire profit planning of an organization.

1.2 Focus of the Study

The main concern of the study is on Budget. The study is designed to highlight the role of Budget and its overall impact for effective implementation of entire profit planning system of NEBICO Private Limited and examining and evaluating how far the company is applying the different functional budgets considering the purpose, role and responsibility of preparing them at different level of activities. Budget is considered as a most prominent tool to analyze profit planning and control program of any enterprises. So, Budgeting programs should comprehensively be applied for good performance and efficiency. Budgeting programs are actually designed to carry out a variety of functional planning, evaluating performance, coordinating implementing, communicating, motivating and authorizing activities of an organization.

1.3 Statement of Problems

The economic prosperity of any country depends upon sustainable economic development which is not possible without industrialization. So, industrialization is indeed an indispensable means for the attainment of accelerated economic development in the country. Industrialization contributes to the creation of new employment opportunity and economic integration. Industrialization can play the significant role in the long term development of the country. It is one of the best training grounds for skill development and also an important source of structural change and diversification. It can raise economic flexibility and reduce dependency on external forces. So, Industrialization in fact is the backbone of the development of national economy. In the context of Nepal, there are various manufacturing enterprises established in many sectors to utilize the available resources properly for the overall development of the country with effective goals and objectives. Nepalese manufacturing industries are growing steadily but most of them are suffering from poor performance and operating at loss. It may be due to different factors like small size of market, high cost of production, low productivity of inputs, poor financial performance, inability to compete with international market and lack of proper planning and control.

No enterprise can survive without profit in current competitive market. The success or failure of any enterprises is measured on the basis of profitability or surplus. The profit depends on the systematic budgeting and financial performance. The successful operation of an organization largely depends upon the planning system that it has adapted. Budgeting is one of the most important managerial devices that plays a key role for the effective formulation and implementation of strategic as well as tactical plans of an organization. This research report attempts to show the relationship between various functional budgets and their application along with their achievement for solving the problems of Nebico. Nebico is a pioneering manufacturing industry in the private sector dealing in biscuits and confectionaries production and sales. Nebico has continuously been increasing its efficiency and getting success in its field. But it is also suffering different problems. The major problems faced by the company and other manufacturing industries in Nepal could be summarized as follows-

1. Lack of trained and motivated skilled manpower.
2. Political instability.
3. High level of competition.
4. Limited use of modern technology.
5. Insensibility about maintaining budget discipline properly.

1.4 Objectives of the Study

The fundamental objective of the Study is to highlight and appraise the current practice and application of budget and its overall impact on the profitability of NEBICO Private Limited. Any study and research work is meaningless unless it has not any specific objectives to make the study meaningful. So the Study has some specific objectives which are as follows-

1. To analyze and examine the practice and effectiveness of various types of functional budgets adopted by the Company.
2. To evaluate the Variances between budget and actual achievement of the Company.
3. To obtain a clear picture of the Company's profit planning and overall performance on the basis of managerial budgeting system.
4. To provide some necessary suggestions and recommendations, pointing out some major shortcomings, to improve the Company's existing performance.

1.5 Significance of the Study

Budgeting is one of the most important tools for both the manufacturing and non-manufacturing companies to achieve the organization's goal more effectively and efficiently. Proper formulation and implementation of budget helps to maximize the profitability. The scope of this study is to make attention towards the budgeting practice in Nebico which is more significant for different group of people like management of the company itself, other private organizations, students, and other interested persons to get the required information about budgeting system. The overall study of budgeting system of Nebico Private Limited is significant for several reasons, which are as follows-

1. The management as well as policy maker of the company will be benefited by obtaining different kinds of information and knowledge regarding profit plan.
2. The study explores the shortcomings and their potentialities for further improvement of the company.
3. The study will provide necessary recommendations and suggestions to the related department of the company.

1.6 Limitations of the Study

The study is confined to only Budgeting even after getting the reliable and sufficient data. No existence of limitation in any Research and Study is exceptional case. So, the study has some limitations which can be traced out as follows-

1. The Study has undergone through the historical data of last only Five Fiscal Years starting from 2061/62 to 2065/66.
2. The limited time available to submit the thesis for the partial fulfillment of MBS degree is also one of the constraints of the Study.
3. The Study is based on basically secondary data which is provided by the management of the Company NEBICO.
4. The Study is concentrated only on managerial, financial and accounting aspect but it does not cover other areas of the company. In other word, the Study pays attention to the practice of management accounting (Budgeting) only.

5. Since the Study only deals with NEBICO, the conclusion and findings may or may not be applicable to other manufacturing industries.
6. Limited time and resource constraints may limit the areas covered by the Study.
7. The accuracy and the comprehensibility of the Study are based on the data available from the company.

1.7 Organization of the Study

1. **Introduction.**

   The First Chapter of the study is Introduction Chapter which includes General Background of the Study, Focus of the Study, Statement of Problems, Objectives of the Study, Significance of the Study, Limitation of the Study and also Organization of the Study.

2. **Review of Literature.**

   The Second Chapter is Review of Literature which consists of the conceptual framework about the Budget which is the main concern of the study. This chapter also deals with Review of available literatures and a brief sketch of previous research work relevant to the study.

3. **Research Methodology.**

   The Study must go through third chapter which is Research Methodology chapter. Research Methodology is a systematic way to solve the research problem and its main focus on Research Design, Nature and Sources of Data, Period Covered, Data Gathering and Processing Procedure, Research Variables & Questions and also analytical tools & techniques are used for the Study. This Chapter helps us to know what it's to be done in the Data Presentation and Analysis chapter.

4. **Data Presentation and Analysis.**

   Data Presentation and Analysis is the fourth chapter of the Study which attempts to analyze and evaluate data with the help of different statistical and accounting tools & techniques and interpret the obtained result by drawing major findings of the Study.

5. **Summary, Conclusion and Recommendation.**

   Final chapter of the Study is Summary, Conclusion and Recommendation Chapter which sums up the whole picture of the study through detailed analysis and strictly recommends some suggestions to improve the existing condition.

   And an extensive bibliography and appendix are included at the end of the Study.

CHAPTER-TWO

REVIEW OF LITERATURE

2.1 General Concept of Profit Planning and Control

Profit planning is a predetermined detail plan of action developed and distributed as guide to current operations and as a partial basis for the subsequent evaluation of performance. Profit planning is a management tool which may be used by the management in planning the future course of action and controlling the actual performance because profit planning or managerial budgeting is written plan in which all aspect of business operation concerned with future period, are included. Profit planning is estimation and predetermination of revenues and expenses that estimates how much income will be generated and how it should be spent in order to meet investment and profit requirements, it presents a plan for spending income in a manner that does not result in a loss. Profit planning is an important part of overall planning process of an organization when a management plans its profit performance that is known as profit planning or managerial budgeting. The managerial process and profit planning are interrelated to each other. Success of management is always depended on well planning. The concept and techniques of profit planning and control has wide application in individual business enterprises, government units and all groups of endeavors (Welsch, et al., 2001; 1). Comprehensive profit planning and control is viewed as a process designed to help management effectively perform significant phases of the planning and controlling functions. Comprehensive profit planning and control is defined as a systematic and formulized approach for performing significant phases to help the management. The comprehensive profit planning and control actually involves-

1.) The development and application of broad and long-range objectives of the enterprise,
2.) The specification of enterprise goals,
3.) A long-range profit plan developed in broad term,
4.) A short-range profit plan detailed by relevant responsibilities,
5.) A system of periodic performance reports detailed by assigned responsibilities and
6.) Follow-up procedures.

Comprehensive profit planning and control or managerial budgeting is primarily applicable in management process planning, organizing, controlling, organizing staffs and leading. The comprehensive profit planning and control is a new term in the field of business but not a new concept in the management. Hereby, profit planning and control or managerial budgeting which has been developed to facilitate effective performance of the management process, is a major improvement approach of the organization and has the ultimate objectives to achieve the optimum profit for the organization.

2.1.1 Profit

The meaning of profit planning may not be completed conceptually in the absence of clear-cut definition of profit and planning individually. In the absence of profit, no organization can survive for long term and all the set of objectives for what the organization was established may turn into a bundle of magic sticks only covered with dream and imagination. A business form is designated to make profit and profit is the primary measure of the success of a business organization. It is excess of income over cost of production. Profit is the most of revenue earned above the expenses incurred to operate the business and it is the primary objectives of business. There are several different interpretations about the term profit; an economist's concept of profit is of 'Pure Profit' also called 'Economic Profit' or 'Just Profit'. Pure profit is a return over and above the opportunity cost i.e. the income which a businessman might except from the best second alternative use of this resource. A labor might say that it is a measure of how efficiency labor has produced and that it provides a base for negotiating a wage increase. An investor will view it as a gauge of the return on his or her money. An internal revenue agent might regard it as the base for determining income tax. The accountant will define it simply as the excess of firm's revenue over expenses of producing revenue in a given fiscal period. Using accounts measuring stick, management thinks profit as-

1. A tangible expression the goals it has set for the firm.
2. A measure of the performance toward the achievement of the goals.
3. A measure of maintaining the health, growth and continuity of the company.

Profit is an essential part of business to service to run business effectively, efficiently and economically. A means of maintaining the health, growth and continuity of the firm, it is the primary and ultimate objective of management to maximize profit over the long term consistent with its social responsibility (Lynch & Williamson, 1984; 99-100).

2.1.2 Planning

Planning is essential to accomplish goals. It reduces uncertainty and provides direction to the management determining the course of action in advance (Grace, 1976; 102). Planning is the conscious recognition of futurity of present decision (Ducker, 1950; 338). The planning processes both short and long term is the most crucial component of the whole system. It is both foundation and the base for other element because it is through the planning process that we determined what is going to be done how we are going to do it, and who is going to do it. It operates as the brain centre of an organization (Roy, 1984; 32). The first essence of management is planning. No one can achieve its predetermined goals and objectives in absence of proper planning. All functions of management are performed within the framework of planning. Planning generally recognized as a most difficult task facing by the manager. It helps manager to take right decision at right time efficiently, effectively as well as economically. There is a hardly success without presentation of the proper and scientific planning of any organization. Therefore, it is known as sole concept as well as lifeblood of any organization. It enables managers to help confidence in its ability to established realistic objectives and to device efficient strategic to attain objectives.

2.1.3 Planning Vs Forecasting

The understanding of the distinction between planning and forecasting is important aspect in profit planning or managerial budgeting. And it is not easy to distinguish them. Forecasting is the pre-requisite for planning; a forecast is not a plan. Forecast is the statement of expected future conditions about a particular subject based on one or more assumption. It is only an input of a comprehensive plan. Forecast is conditional but planning is not conditional. Forecasting may be of intermediate term, short-term, and long-term. Forecasting may be known by different names such as intuition, estimation, programming and strategy making, but it in all forecasting is one way or the other way.

Similarly, Forecasting is an attempt to find the most probable course of events or at best a range of probabilities (Kuchal, 1976; 67). Forecasting is not only guess or imagination matter but it is related within certain assumptions. Forecasting is future decision at present from the analysis of relevant factors of past and present. Its main aim is to reduce uncertainty and risk in future and conformity to achieve desired objectives as possible. Forecasting plays vital role in planning. There can be no intelligent or effective planning for a business enterprise without the primary steps of forecasting. The role of forecasting in planning is clearly pictured by the statement of good planning depends on good forecasting (Edwin, 1964; 5). The management of the company may change the forecast. Forecasting is our best thinking about what will happen to us in the future. In forecasting, we define situations and recognize problems and opportunities. In planning we develop our objectives in practical detail and we correspondingly develop schemes of action to achieve these objectives (Thomas, 1970; 502).

2.2 Management Process

A management process that include planning, organizing, staffing, leading and controlling. The five function of management collectively constitute the management process, because they are concurrently and continuously being performed in managing enterprises the management process uses sequential linkage and feedback. The five functions and the management process are given below-

2.3 Fundamentals of Profit Planning and Control

The fundamentals concern effective implementation of the management process in resource by complex endeavors. It desires management orientations, activities, and approaches necessary for proficient and sophisticated application of comprehensive profit planning and control. This fundamentals need to be established on a sound foundation of managerial commitment. The more prominent fundamentals are as follows (Welsch, 1996; 30)-

2.3.1 Management Involvement and commitment

Management involvement entails managerial support, confidence, and participation and performance orientation. In order to engage competently in comprehensive profit planning, all levels of management, especially top management, must-

1) Understand the nature and characteristic of PPC,
2) Be convinced that this particular approach to managing is to devote the effort required to make it operation,
3) Support the program in all its planning process as performance commitment.
4) View the result of the planning process as performance commitments.

For a comprehensive budgeting program each member of management, starting from the president, the impetus and direction must come from the very top (Welsch, 1996; 30).

2.3.2 Organizational Adaptation

Profit planning and control program must rest upon a sound organizational structure for the enterprise and clear cut designation of line of authority and responsibility. The purpose of organizational 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 inter-relationship of the responsibility of each individual manager are specified. To increase managerial and operation efficiency, practically all enterprise, expect perhaps the very smallest ones, should be structurally disaggregate into organization subunits (Welsch, 1996; 33-34). Thus, the company as a whole is responsibility centre, as is each division, department, and sales district. Responsibility centre are future classed in respect to the extent of responsibility as follows-

1) Cost Centre
2) Revenue Centre
3) Profit Centre
4) Investment Centre

2.3.3 Responsibility Accounting

Planning uses historical data, including past financial information, as one of its launching platforms. Control includes the measurement of performance by using actual result. Actual results are compared with objectives, goals and standards to determine variance that shed light on performance. The accounting system must be designed to provide financial information separately for each organization unit, that is, by assigned authority and responsibility. Therefore, profit planning and control requires responsibility accounting system, that is, one tailored to organizational responsibility. Within this primary accounting structure, secondary classification of costs, revenues and other relevant financial data may be used to meet the need of the enterprise. A responsibility accounting system can be designed and implemented regardless of the feature of the account system. Every planning will be made with the help of historical data supplied by accounting department and controlling will be made by evaluation both actual and budgeted data. Therefore, accounting system of any enterprise should be built around the responsibility accounting. So, profit planning and control or managerial budgeting program finds it necessary to analyze with a consequent reorganization of the system on a responsibility accounting. Hereby, in order to set up Profit planning and control or managerial budgeting on a sound basis, there must be a responsibility accounting system (Welsch, et al., 2001; 41).

2.3.4 Full Communication

Profit planning can be done, more effective communication network in an enterprise. Full communication means, every body of the organization or enterprise can be familiar with goal and objective. Communication can be of dialogue, messages or understandings from working together. Although, the management gives least important to communication, it is most important thing for an organization observation and control. Most of the organization faces lot for evaluation. For Profit planning, effective communication means development of well define objective, specification of goals, development of profit plan and reporting and follow up activities related to performance evaluation for each responsibility centre.

2.3.5 Realistic Expectation

In profit planning or budgeting must 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 profit planning program. For profit planning 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 and goal should be attainable (Welsch, et al., 2001; 53).

2.3.6 Time Dimension

Effective implementation of the profit planning concept required that the management of the enterprise establish a define time dimension for certain types of decision. The planning function often suffers. Two important timing issues require careful attention if the planning horizon, and the other related to the timing of planning activities. Planning horizons is the time for which the planning is done or we can it life span of the plan. For any enterprise there use to be many planning horizons to maintain the continuity of planning activities. The decision made by the manager for future activities reflects the managerial planning; for effective implementation of planning management of an enterprise must establish a definite time dimension types of activities. In other word for each activities related with planning would be given definite time for implementation, followed by other activities.

2.3.7 Flexible Application

Profit planning or PPC program administered in an enlightened way permit greater freedom at all management levels. This effect is possible because all levels of management are brought into the decision making process when plans are developed. It is not uncommon for budget to impose inflexibility on a business and act as a constraint on the decision making freedom of managers and supervisors. When the basic profit plan has been approved, upper management is then in a position to delegate more responsibility than would otherwise be possible. Profit planning program or any other management techniques should be not dominating management slowly. Any of such technique of management must not 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 on investment and for this purpose profit planning or other technique are used as mean only (Welsch, et al., 2001; 51).

2.3.8 Behavioral viewpoint

The motivation of human resources through dynamic leadership is central to effective management. The behavioral aspects of management process have been accorded extensive and intensive investigation by psychologists, education and businessman. This attention is increasing in scope and intensity is recognition that there are many unknowns, misconception and speculations. The comprehensive profit planning approach to manage brings many of these behavioral problems into sharp focus. A sophisticated view of profit planning focuses on positive approach to resolve certain behavioral problems. Clearly, the approach can resolve behavioral problem, but in many respects it can provide one effective approach to their partial resolution (Welsch, 1996; 45).

2.3.9 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 fine it useful to associate cost with activities. By decomposing as organization’s production process into a discrete set of activities and then association of costs with each of those activities management in a better position to determine the costs and benefit of continuing the activities (Welsch, et al., 2001; 43).

2.3.10 Zero-based budgeting

Under Zero base budgeting is constructed on the premise that every activities 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 is say 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 (Welsch, et al., 2001; 44).

2.3.11 Follow up

The fundamental holds that both good and substandard performance be carefully investigated, the purpose being three folds (Welsch, et al., 2001; 49)-

1) In the case of substandard performance, to lead in a constructive manner to immediate corrective action.
2) In the case of outstanding performance, to recognize it and perhaps provide for a transfer of knowledge to similar operation.
3) To provide a basis for better planning and control in the future.

2.4 Concept of Budgeting: as a tool of Profit Planning

Budgeting has long been recognized as the accepted procedure for profit planning and many of the most successful companies have applied it to good effect over a period of years. Budget is an expression of a firm's plan in a financial form for a period in future; it is an estimate of the future needs calculation for definite period. It anticipated income for a given period and cost as well as expenses of obtained this income are set or limited within the idea of earning a desired profit and controlling losses. A business budget is a plan covering all phases of operation for a definite period in future. It is a formal expression of policies, plans, objectives and goals laid down in advance by top management for the undertaking as a whole and or very sub-division thereof. A budget is a quantitative expression of a plan of action and an aid to co-ordinate and implementation. Budget may be formulated for the organization as a whole or for any sub-unit. Budgeting includes sales, production, distribution and financial aspects of an organization. Budget programs are designed to carry out a variety of functions such as planning, evaluation performance, co-ordination activities, implementing plans, communicating, motivating and authorizing action (Horngren, 1970; 123).

Budget as a tool of planning and control is closely related to the broader system of planning and control in an organization. Planning involves the specialization of the basic objectives that will guide it. In operational terms, it includes the step of setting objectives, specifying goals, formulating strategies and expressing budgets. A budget is a comprehensive and co-ordination plan expressed in financial terms for the operation and resource of an enterprise for some specified period in future (Khan & Jain, 1989; 296).

A budget is written plan for the future. The managers of firm who use budgets are forced to plan ahead. A firm without financial goals may find it difficult to make proper decisions. A budget helps a firm to control its costs by setting guidelines for spending money for unread items because they know that all costs will be compared to the budget. If actual costs exceed the budgeted costs, a justifiable explanation is required. A budget also helps employees to do a geed job. This is particularly true when employees help in setting up the budget.

2.5 Objectives of Budgeting

The main objectives of budgeting are as follows:-

1. To state the firm’s goal in clear formal term to avoid confusion and facilitates their attainability.
2. To communicate expectation to all concerned with the management to the firm so that they are understood support and implemented.

3. To provide a detailed plan of actions for reducing uncertainly and for its proper direction of individual and group efforts to achieve goal.
4. To co-ordinate the activities and effort in such a way that the use of resources maximized.
5. To provide a means of measuring and controlling the performance of individual and to supply information based on which the corrective action can be taken.

2.6 Advantages of Budgeting

The main advantages of budgeting are as follows (Welsch, et al., 2001; 60-61)-

1. It forces early consideration of basic policies.
2. It required adequate and sound organization structure, that is, there must be a define assignment of responsibility for each function of the enterprises.
3. It compels all members of management, form top down, to participate in the establishment of goal and plans.
4. It compels departmental managers to make plans in harmony with the plans of other departments and of the entire enterprise.
5. It required that management put down in figures what is necessary for satisfactory performance.
6. It required adequate and appropriate historical accounting data.
7. It compels management to plan for the most economical use of labor, material and capital.
8. It instills at all level of management the habit of timely, careful and adequate consideration of the relevant factors before reaching important decisions.
9. It reduces cost by increasing the span of control because fewer supervisors are needed.

10. It frees executives form many day to day internal problem through predetermined polices and clear cut authority relationships. It thereby provides more executive time for planning and creative thinking.
11. It tends to remove could of uncertainty that exists in man organizations especially among lower levels of management, relative to basic policies and enterprises objectives.
12. It pinpoints efficiency and inefficiency.
13. It promotes understanding among member of management of their co-workers' problems.
14. It forces management to give adequate attention to the effect of general business conditions.
15. It forces a periodic self analysis of the company.
16. It aids in obtaining bank credit, banks commonly require a projection of future operation and cash flows to support large loans.
17. It checks process or lack of progress towards the objective of the enterprise.
18. It forces recognition and corrective action.
19. It reward high performance and seek to correct unfavorable performance.
20. It forces management to consider expected future trends and conditions.

2.7 Disadvantages and Limitations of Budgeting

The effective budgeting requires coordinated planning. It is essential that all persons participating in the building of budget are planning towards the same objective and are contemplating the some company, industry and general economic conditions that can be accomplished by issuing a statement of basic assumption prior to the start of the budgeting system. There are so many assumptions in using profit planning programs or managerial budgeting. Firstly, the basic plans of a business must be measured in terms of money, if these are to be any assurance that many will be available for the needs of the business. Secondly, it is possible to plan for the future of a business in a comprehensive way coordinating every aspects of the business with very other aspects to establish optimum profit goals. Thirdly, profit planning or managerial budgeting is pre-planning not merely what to do if things, workout as forecasted, but also what to do if things, workout differently from the forecast.

The profit plan or budgeting should not be regarded as ends of the organizations rather it should be applied as means to accomplish the predetermined objectives of the organization. It is one of the best tools yet devised for advancing the affairs of a company and the individuals in their various spheres of managerial activity. It is not assumed that any profit plan is perfect. The most important consideration is to make sure by intelligent use of the profit plans that all attainable benefits are derived from the plans rendered. The main assumptions or limitations of profit planning or managerial budgeting are as follows (Welsch, et al., 2001; 60)-

1. It is difficult, if not impossible, to estimate revenues and expenses in our company realistically.
2. Our management has no interest in all the estimate and schedules. Our strictly informal system is better and work well.
3. It is not realistic to write out and distribute our goals, policies, and guidelines to all the supervision.
4. Budgeting places too great a demand on management time, especially to revise budgets constantly. Too much paper work is required.
5. It takes away management flexibility.
6. It creates all kinds of behavioral problems.
7. It places the management in a straitjacket.
8. It adds a level of complexity that is not needed.

9. It is too costly, aside from management time.
10. The managers, supervisors, and other employees hate budgets in other words not whole staffs of the organization has been in involved or interested in budgeting.

2.8 Components of Profit Planning or Managerial Budgeting

A comprehensive profit planning and control program encompasses much more than the traditional idea of periodic budget. Moreover, it encompasses the application of a number of management concepts through a variety of approaches, techniques and sequential steps. Basic components of comprehensive profit planning and control program can be presented below (Welsch, et al., 2001; 61)-

1. Evaluation of the potential effect of all relevant variables on the enterprise.
2. Specification of broad objectives of the enterprise by executive management.
3. Establishment of specific goals for the enterprise.
4. Development and evaluation of enterprise strategies.
5. Preparation of planning premises.
6. Preparation and evaluation of project plans.
7. Development and approval of a strategic long-range profit plan.
8. Development and approach of tactical short-range profit plan.
9. Development of supplementary analysis.
10. Implementation of plans.
11. Development, dissemination and utilization of performance reports.
12. Implementation of follow-up actions.

We can describe some of the above components of profit planning or managerial budgeting which are as follows-

1. Evaluation of Relevant Variables Affecting the Enterprise

Variables, which have a direct and significant impact on the enterprise, are relevant variables. Variables may have their different relevancy according to the nature of the market. For a large firm with a national market, the relevant variables obviously be broad in scope where as a small firm would be concerned primarily with regional and local variables operating within the narrow environment of enterprise. These relevant variables include the environmental variables, which have a deep concern in the continuation of the enterprise. Political, social, legal points have a sharp impact and which constitute the strength and weakness of the enterprise. Profit planning or managerial budgeting program begins with the identification of these variables.

2. Specification of the Broad Objectives of the Enterprises

The statement of broad objectives is viewed as pervasive and general expression of the philosophical objectives of the enterprise. The broad objectives normally should avoid specific statement of quantitative goals; rather they should focus on such broad factor as long-range economic potentials, attitudes toward customers, product and service availability, employee rationale and attitudes towards owners. The statement of broad objectives should express the mission, vision and ethical tone of the enterprise. It tends to provide enterprise identity, continuity of purpose and definition. Purposes to specification of broad objectives are as follows (Welsch, et al., 2001; 63-64)-

1. To define the purpose of the company.
2. To clarify the philosophical character to the company.
3. To create a particular "climate" within the business.
4. To set down a guide for managers so that the decisions they make will reflect the best in interests of the business with fairness and justness to those concern.

Thus, the objectives should be specified. So, as to serve as the foundation of the company and they should be 'believable' to be grasped easily by every part concerned to the enterprise i.e. shareholders, customers, government, employees and so on.

3. Development and Approval of Strategic and Tactical Profit Plans

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 (five years) and in hormonally with the five years plan a tactical short-range profit plan (one year) as soon as he receives the planning premises and procedural instructions (Welsch, et al., 2001; 67).

4. Development of Supplemental Analysis

A number of important analyses may be developed supplementary to the short and long-range profit plans. These analysis apply many useful managerial techniques in the decision making process, specific important analysis are planning model simulation, cost-volume-profit (break even), marginal cost, return on investment, linear programming models (LPP), variable expense budgets and accessory statistics both historical and prospective (Welsch, et al., 2001; 68).

5. Implementation of plans

Implementation of management plans that have been developed and approved in the planning process involves the management function of directing subordinates in the accomplishment of enterprise objectives and goal; communication is an especially important aspect of direction. Thus, component management at all levels requires that enterprise objectives, goals, strategies and policies keenly appreciated and understood by subordinates. There are many facets involved in management direction and objectives and goals should be realistic and attainable, yet they should present a real challenge to the overall enterprise and to each responsibility center. The plans should have been developed with the managerial conviction that they are going to be met or exceeded in all major respects. If these principles are made effective in the development process, the various executives and supervisors certainly should have a clear understanding of their responsibilities and the expected level of performance. Expectation of the managerial plans is assured through dynamic and flexible control. Thus, performance report must be measured and reported to each level of management (Welsch, et al., 2001; 71-72).

6. Implementation of Follow-Up

Follow-up is an important facet of effective control and re-planning. Performance reports, since they indicate the status of performance by responsibility, provide a basis for certain follow-up actions. It is important to distinguish between cause and effect. The performance variations are effects (the result); the management must determine the underlying causes. The identification of causes primarily is responsibility of line management. Analysis and determination of underlying causes of both favorable and unfavorable performance should be given immediate priority. In the case of unfavorable performance, after identifying the basic cause, as opposed to the result and having selected what appears to be the most fruitful alternative for corrective action, the manager must initiate its implementation. In addition, special type of follow-up procedure should be implemented continuously, it should be designed (Welsch, et al., 2001; 72-73).

i. To determine the effectiveness to the prior corrective actions and
ii. To provide a basis to improve future planning and control procedures,

2.9 Development of Budgeting

Development of profit planning or managerial budgeting includes the preparation of various functional budgets, analysis of variance and presentation of projected income statement and balance sheet. Top management with the participation of low management involves in the development of profit plan. The preparation of process of budgeting forces executives to become better administrator and budgeting puts planning where it belongs in the forefront of the manager's mind. Developing profit plan begins with the preparation of master budget. The steps included in the preparation of master budget are outlined as below-

Step 1: Forecast demand for products or services.
Step 2: Identify cost patterns of responsibility centers.
Step 3: Estimate production costs.
Step 4: Specify operating objectives.
Step 5: Develop a sales budget.
Step 6: Develop a production budget.
Step 7: Develop a purchasing budget.
Step 8: Develop budgets for responsibility centers.
Step 9: Formulate a profit plan.
Step 10: Compare profit plan with operating objectives.
Step 11: Formulate a projected cash budget.
Step 12: Prepare a projected statement of financial position.

2.9.1 Sales Budget

A. Introduction

After the planning premises have been received, the development of sales plan is the next step in the preparation of profit plans. In practical sense, sales plan is the starting points for the development of the profit plan. The sales forecast is the starting points for budgeting because inventory level, purchases and operating expenses are generally geared to the rate of sales activity. Sales plan is the starting point in the preparation of the comprehensive profit planning and control. All the other plans and budgets are dependent upon the sales budget. The budgets are usually presented both in units and dollars/Rs. (the sales revenue or sales volume). The preparation of sales plan is based upon the sales forecast. A variety of methods are use to forecast the sales for the planning period.

The sales plans are foundation for periodic planning in the firm because particularly all other enterprise planning builds on it. The primary source of cash is sales; capital additions need the amount of expense to be planned, the manpower requirement, the production level and other important operational aspect depend on the volume of sales. Therefore, the sales plan must be realistic. The sales plan has three district parts (Halsall, 1974; 4)-

i. The planned volume and the selling price per unit for each product.
ii. The sales promotion plan and
iii. The sales or distribution expenses plan. The sales budget itself is an estimate of main three figures. They are-
    a. The income that will be earned from sales,
    b. The cost and expenses of making these sales, and
    c. The sales surplus. The income from sales depends on the quantity and price of the goods, which will be sold.

Sales plan forecast what the business can responsible expect to sell to its customers during the budget period. The primary purposes of sales plan are (Welsch, et al., 2001; 172)-

i. To reduce uncertainty about future revenues,
ii. To incorporate management judgment and decisions into the planning process,
iii. To provide necessary information for developing other elements of a comprehensive profit plan, and
iv. To facilitate management's control of sales activities.

Sales in units or amount can be computed as follows:

Particulars	Units	Amount (Rs.)
Opening Stock of Finished Goods	xxxx	xxxx
Add: Planned Production	xxxx	xxxx
Total Available	xxxx	xxxx
Less: Closing Stock of Finished Goods	xxxx	xxxx
Planed Sales	xxxx	xxxx

B. Sales Planning and Sales Forecasting

Sales planning and forecasting often are confused. Although related, they have distinctly different purpose. A forecast is not plan rather it is a statement and/or a quantified assessment of future conditions about a particular subject (e.g. sales revenue) based on the one or more explicit assumptions. A forecast should always state the assumptions upon which it is based. In contrast, a sales plan incorporates management decisions that are based on the forecast, other inputs, and management judgment about such related items as sales volume, prices, sales effort, production and financing. A forecast should be viewed as only one input into the development of a sales plan. The management of a company may accept, modify or reject the forecast. A sales forecast is corrected to a sales plan when management has brought to bear management judgment, planned, strategies, commitments of resources, and managerial commitment to aggressive actions to attain the sales goals. In contrast, sales forecasting is technical staff function.

Sales forecasts are conditional. The internal technical staff of the organization is not involved to make the fundamental management decisions and judgments are used to mold the sales plan, sales forecasts are done by the technical staff on the basis of qualified data (Welsch, et al., 2001; 172-173).

A sales forecast has to be translated into a sales budget and here a number of factors have to be taken in the considerations (Alpines, 1976; 66). Now it is clear that sales plans are formulated by top executive on the basis of strategies. Objectives and guide lines as well as considering the forecast and sales forecast is the job of technical staffs who estimate sales on the basis of their past knowledge and experience. And this estimate is used in formulating sales plan.

C. Strategic and Tactical Sales Planning

A comprehensive sales plan includes two separate but related plans, the strategic and the tactical sales plan. The strategic sales plan is long term sales plan and it is usually covers at 5 to 10 years time horizon. Whereas tactical sales plan has shorter time horizon and usually covers one year period. Strategic long term sales plan is developed as one of the first step in the overall completion process of comprehensive profit planning. Long-term sales plans are usually developed as annual amounts. The long-term sales plan uses broad groupings of products (product lines) with separate consideration of major and new products and services usually involves in depth analysis of future market potentials, which may be built up from a basic foundation such as population changes, state of the economy, industry projection and finally company objectives. Long-term managerial strategies would affect such areas as long term pricing policy, development of new products and innovations of present products, new directions in marketing efforts, expansion or changes in distribution channels and lost patterns. The influence of managerial strategy decisions is explicitly brought to bear on the long-term sales plan primarily on a judgmental basis.

Similarly, Short-term sales plan or tactical sales plan is prepared to plan sales for the twelve months into the future detailing the plan initially by quarters and by months for the first quarter. At the end of each month or quarter throughout the year, the sales plan is restudied and revised by adding a period in the future and by dropping the period just ended. Thus tactical sales plans are usually subject to review and revision on quarterly basis. The short-term sales plan includes a detailed plan for each major product and for groupings of minor products. Tactical sales plans are usually developed in terms of physical units (or jobs) and in sales and/or service dollars. To establish policy about detail in the short-range sales plan, the main question is for the use of the results. First, the major consideration is to provide detail by responsibility for planning and control purpose. Second, the short-range sales plan must provide detail needed for completing the profit plan components by other functional managers. That is, the production mangers will need sufficient detail for planning production levels and plant capacity needs. The financial manager will need sufficient detail for assessing and planning cash flows, unit product costs; inventory needs and so on. Third, the amount of detail also depends on the type of industry, size of the firm, availability of resources and use of the results by management (Welsch, et al., 2001; 173-175).

D. Component of Sales Plan

The component of comprehensive sales plans are as follows (Welsch, et al., 2001; 176)-

i. Management policies & assumptions.
ii. Marketing plan (sales and services revenues).
iii. Advertising and promotion plan.
iv. Distribution or selling expenses plan.

E. Developing a Sales Plan

Following steps are followed to develop comprehensive sales plan (Welsch, et al., 2001; 177-182)-

Step 1: Develop management guidelines for sales planning.

Step 2: Prepare one or more sales forecast.

Step 3: Assemble other relevant data.

i. Manufacturing capacity.
ii. Sources of raw materials and supplies or goods for resale.
iii. Availability of key people and a labor force.
iv. Capital availability.
v. Availability of alternative distribution channels.

Step 4: Develop the strategic and tactical sales plan.

There are four different participate approaches widely used in the process of developing sales plan:

i. Sales force composite (maximum participation)
ii. Sales division managers composite (participation limited to managers only)
iii. Executive decision (participation limited to top management)
iv. Statistical approaches (technical specialists plus limited participation)

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

F. Evaluation of Alternatives

Developing a sales plan consists of the consideration of various policies and related alternatives and a final choice by executive management among many possible courses of action. There are mainly two types of problems to which important considerations should be given while preparing the sales plan.

1. Price-Cost-Volume Consideration in Sales Planning.

In a competitive market, price and sales volume are mutually interdependent. The close relationship between sales volume and price possess a complicated problem to the management of a company. Thus, two basic relationships involving the sales plan must consider (Welsch, et al., 2001; 183)-

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

Thus, this price-cost-volume relationship has a significant impact on the managerial strategy that should be adopted.

2. Product-line Consideration.

Determination of the number and variety of products that a company will plan to sell is crucial in the development of a sales plan. Sales plan must include tentative decision about new product lines to introduce, old product lines to be dropped, innovations and product mix.

2.9.2 Production Budget

After preparing the sales plan the next step in comprehensive profit planning and control is the formulation of production plan. Production budget is an estimate of the number of units of product that will be produced in the budget period. The production plan involves determining the number of units (each product) that must be manufactured to meet planned sales and maintain the planned inventory levels of finished goods. It is an estimate of how cheaply the goods required by sales can be made. Once sales and inventory requirements have been established, the logical first step in the production plan is 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 skills are considered. Bottlenecks caused by lack of skill or equipment are frequently uncovered. At this point, decisions must be made either to eliminate bottlenecks or to reduce planned volume (Thomas, 1970; 508).

Production budget is based on estimated sales, production must be planned to allow sufficient time to manufacture the products before the estimated data on sales. The annual sales budget and the inventory requirement provide the framework for the production budget. It is prepared on the basis of (Rathmen, 1994; 14-15)-

a. Sales budget.
b. Plant capacity.
c. Opening inventory of finished goods.
d. Required closing inventory of finished goods and
e. Policy of management.

Production budget is divided into monthly budgets for the purpose of production planning. In production planning, the following factors are to be considered-

i. Economic batch quantity.
ii. Delivery schedules.

iii. Seasonal Conditions.
iv. Optimum utilization of plant capacity.
v. Optimum utilization of labor without much over time and idle time.
vi. Reduction of bottlenecks such as shortage of man, material etc.
vii. Stock requirements.
viii. Work in progress.

Production plan entails the development of policies about efficient production levels, use of productive facilities and inventory levels (finished goods and work-in-progress inventory). The qualities specified in the marketing plan, adjusted to conform to production and inventory policies give the volume of goods that must be manufactured by product and by interim time period. Thus, the production budget can be represented in this way (Welsch, et al., 2001; 210)-

Production Requirement = (Sales volume + Finished Goods Inventory Change)

A complete production plan should show budgeted data, classified by (a) products to be manufactured (b) interim time periods and (c) activities of each responsibility center in the manufacturing process (Welsch, et al., 2001; 213).

A. Objectives of Production Budget

There are various objectives of Production plan which are as follows-

i. To bring to common focus of all the factors necessary to establish policies and to determine operations.
ii. To project these established policies into the future by an analysis of past performance.
iii. To plan and control the operations being carried out to implement policies decided upon.

iv. To make provision for materials at right time and place.
v. To plan the sequence of operation required for economical production.
vi. To co-ordinate the variance aspects of factory operation so as to make them aviate link in the chain of profitable program.

B. Responsibility for Production Budget

Production managers are responsible for the development of production plan. The complete marketing plan is given to the production manager for translating it into a production program consistent with managerial policies and subject to certain constraints. Production managers are fully responsible for production plan and they have also to consider top management policies in respect of (i) inventory level (ii) stability of production and (iii) capital additions. An efficient and coordinated production plan required the careful attention of executive management, particularly where there is multiple production requiring the determination of both time and place of production. The production manager must plan an optimum co-ordination between sales, inventory and production levels (Welsch, et al., 2001; 211-212).

C. General Considerations in Production Budget

The production plan represents the implications of planned sales volume for planned production volume as a basis for planning the various aspects of the manufacturing functions, plant capacity requirements, direct material and component requirements, timing of purchase, direct labor requirements and costs and factory overheads (Welsch, et al., 2001; 213). There must be coordination between sales plans, production plans, inventory policies and the production budget provides the basis of obtaining the coordination. The production plan affects so many decisions, therefore; there should be serious consideration in preparing the production plan. So, the decisions required to develop the production plan include the followings (Welsch, et al., 2001; 214)-

1. Total production requirement by product for the budget period.
2. Inventory policies relevant to levels of finished goods and work-in-progress.
3. Plant capacity policies such as the limits of permissible departures from a stable production level throughout the years.
4. Adequacy of manufacturing facilities.
5. Availability of direct materials, purchase components and labor.
6. Length of processing time.
7. Economic lots or runs.
8. Timing of production throughout the budget period, by product and by responsibility centers.

D. Time Dimension of Production Budget (Long-Range Vs Short-Range)

To develop a long-range plan, broad estimates of production levels are necessary to plant capacity requirements, factory cost structures, personnel requirement and cash flows. For long-range planning purpose, only major increases or decreases in inventories need to be taken into account. But the short-range production plan should not be planned annually, but detailed by products and by months or quarters. Also the production activities should be planned by responsibility centers within the manufacturing division (Welsch, et al., 2001; 214).

E. Developing the Production Plan

1. Recasting of Sales Budget

As sales budgets are typically classified according to product line and sales territory, it is necessary to recombine these planned sales figures on a basis that will permit determination of physical input requirement, generally means for individual plants or productive facilities.

2. **Production Analysis**

   This consists of breaking down production into its ultimate parts or components.

3. **Scheduling**

   It is concerned with fitting the various processes into a general time table to permit orders to be manufactured according to requirements based upon selling estimate.

4. **Dispatching**

   This covers the movement of materials and stores from the place they are initially deposited to the first process and thereafter from one process to another.

5. **Inspection**

   It is designed to exercise control over the quality of the product to prevent further work on spoiled part, to ensure that payment is made in respects of satisfactory work only, to find and locate faults in machines and to maintain a satisfactory standard of accuracy.

The production budget is phased primarily in physical term units of output, labor hours and material requirements. Annual plans for production costs, purchases, manpower and cost of goods sold are all derived from the physical production budget which determines the actual production level by taking into account deviation from planned sales and inventory levels. Moreover, normal loss in many process industries has to be reckoned in estimating production requirements. The following formula is generally used to determine the planned production.

Planned Sales in unit or amount	*xxxx*
Add: Desired Ending Inventory of F.G.	*xxxx*
Total Requirement	*xxxx*
Less: Beginning Inventory of F.G.	*xxxx*
Production for the year	*xxxx*

F. Production and Inventory Policy

The coordination between the sales plan, inventory level and production requirement comes into focus and resolved in production plan. The production plan fully depends upon inventory level and demand of sales. To plan about inventory level and production level, it is not easy as it depends on variation of sales. So we have to adopt different policies in production level and inventory level, which are as follows-

1. **Stable Production Policy**

   There are fixed production in each month or specified period while inventory levels are changed reversibly to sales volume. If sales increase, inventory level decreases and if sales decrease inventory level increases.

2. **Stable Inventory Policy**

   Under this policy, inventory levels are fixed in each month or specific period time while production levels are changed due to change in the levels of sales. When sales increases, production level also increases and when sales decrease, production level also decreases.

3. **Production and Inventory within limit or Flexible Policy**

   Under this approach flexible units of final inventory are to be maintained for specific period. If sales increases, production level will be slightly increased and stock level will be decreased within a certain limit.

4. JIT Production (Just-In-Time Production)

The JIT approach to production planning is recent trend in manufacturing. Japanese companies develop the policy. Under this approach, production must be as per order specification. JIT is a production concept in which virtually nothing is purchased or manufactured units just before it is needed.

G. Considerations in Establishing Inventory

The management should consider the following factors establishing or setting inventory policies (Welsch, et al., 2001; 220-221)-

1. Quantities needed to meet sales requirements.
2. Perishability of items.
3. Length of production period.
4. Storage facilities
5. Adequacy of capital to finance inventory, production some time in advance of sales.
6. Distribution of time requirements.
7. Cost of holding inventory.
8. Protection against direct material and component shortages.
9. Protection against labor shortages.
10. Protection against materials and parts price increase.
11. Risk involved in inventory.
    a. Price Declines.
    b. Obsolescence of Stock.
    c. Casualty loss and theft.
    d. Lack of Demand.
    e. Customer Return Policy.

2.9.3 Material Budget

The raw material budget is prepared after production and sales budget. The production budget gives information about the units to be produced and on this basis; the raw material need is estimated. Based on the production budget, the quantities of each material usage lead to the solution of the problem of when and how much to purchase of each material. A comprehensive profit planning and control program includes planning and controlling raw material and components used in the manufacturing of finished products. Adequate coordinate and balance should be planned and controlled in between-

i. Production requirement for raw material and component parts.
ii. Raw material and parts inventory levels and
iii. Purchases of raw materials.

To assume the right amounts of raw materials will be on hand at the time required and to plan for the casts of such materials and part, it is essential that the tactical short-term profit plan includes-

1. Detailed budget specifying quantity and cost of material required and
2. A related budget of material and parts purchases.

The planning of raw materials usually requires the following four sub-budgets (Welsch, et al., 2001; 240-241)-

A. Material and Parts Budget

This budget specifies the planned quantities of each raw material and parts required for planned production. It should specify quantities of each raw materials and parts by time, products and responsibility center. Thus,

Material and Parts Budget = (Planned Production X Usage Rate)

B. Material and Parts Purchase Budget

The materials and parts budget specifies the quantities and timing of each raw material and component part needed, therefore, a plan for purchase must be developed. The purchases and parts budget specifies the planned quantities of materials and parts to be purchased, the estimated cost and the required delivery dates.

Material Purchase Budget = (Material Required for Production + Closing Stock of Raw Material – Opening Stock of Raw Material)

C. Material and Parts Inventory Budget

Material inventory budget specifies the budgeted level of material parts inventory in term of unit and cost. In other word, material inventory budget deals with the difference between the required quantities budget and purchases unit budget.

D. Cost of Materials and Parts Used Budget

This budget specifies the planned cost of the material and parts that will be used in the productive process. The material and purchasing budget and its sub-budgets should be designed in such a way that the related activities and cost will be budgeted in terms of responsibility center, interim time periods, type of raw materials and parts and type of finished product.

Consideration in materials and parts purchase and inventory policies:

The primary considerations in setting inventory policies for materials and parts are as follow (Welsch, et al., 2001; 244)-

1. Timing and quantity of manufacturing needs.
2. Economics in purchasing through quantity discounts.
3. Availability of materials and parts.
4. Lead time (order and delivery).

5. Perishability of materials and parts.
6. Storage facilities needed.
7. Capital requirements to finance inventory.
8. Cost of storage.
9. Expected change in the cost of materials and parts.
10. Protection against shortages.
11. Risk involved in inventories.
12. Opportunity cost (inadequate inventory)

In developing the policy with respect to purchase and inventory the basic two questions should be answered. The first is how to purchase at a time is determined by well-known approach called Economic Order Quantity (EOQ). In EOQ the ordering cost and carrying cost of the inventory is minimum. EOQ can be calculated by using the following formula-

a) How much to purchase at a time

EOQ = 2AO/C

Where,

EOQ = Economic Order Quantity (Units)

A = Annual Used Quantity (Units)

O = Cost Per Order (Average Annual Cost)

C = Annual Carrying Cost per unit in inventory for one year.

b) When to purchase

The time when a purchase is made called the 'Re-order Point'. This model is used to calculate the timing for purchase. This is-

Re-order point/level (ROL) = (Replacement Stock + Safety Stock)

Or,

Re-order point/level (ROL) = (Maximum Consumption x Maximum Lead Time)

2.9.4 Direct Labor Cost Budget

A. Meaning

Direct labor budget is the pre-determination of planned direct labor hours and labor cost. After preparing the production budget, the direct labor hours is calculated by multiplying the units to be produced and estimated labor hours for each product. After finding total labor hours required, labor cost is calculated by multiplying the labor hours and wages rate. Planning and controlling labor costs involve major and complex areas which are as follows-
1) Manpower or personnel needs 2) Recruitment 3) Training 4) Job description and Evaluation 5) Performance evaluation 6) Union negotiations and 7) Wages and Salary Administration.

Comprehensive profit planning and control or managerial budgeting program should incorporate appropriate techniques and approaches applicable to each problem. Careful planning and realistic control of long term and short-term labor costs will be beneficial for both the company and its employees (Welsch, et al., 2001; 280). Labor costs in the broad sense, are composed of all expenditures of those employees by the firm, top executive, middle management personnel, staff officers, supervisors, foremen, skilled workers and unskilled workers. It is necessary to consider separately the different types of labor cost. Labor is generally classified as: i) Direct labor & ii) Indirect labor. The direct labor comprises the estimates of direct labor requirements necessary to produce the types and quantities of output planned in production. Although, some companies prepare a labor budget that includes both direct and indirect labor budget.

B. Approaches used in Direct Labor Cost Budget

The approach used to develop the direct labor budget depends primarily on the (Welsch, et al., 2001; 281)-

i. Method of wage payment
ii. Type of production process involved
iii. Availability of standard labor times.
iv. Adequacy on the cost accounting records relating to direct labor costs.

C. Developing the Direct Labor Budget

Basically there are three approaches to the development of direct labor budget which are as follows-

i. Estimate the standard direct labor hours required for each unit for each products and department. Then estimate the average wage rate by department cost center or operation = planned production unit usage hour = required hour for production.
ii. Then calculate labor cost multiplying the standard hour by hourly wage rate by department, cost center or operation Q = required hour for production wages rate
iii. Develop personnel tables by enumerating personnel requirements (number and cost) for direct labor in each responsibility center such as (total labor/hour worked).

Direct labor budget depends on direct labor hour. So an important function of industrial engineers is to develop standard labor times for various operations and products. In some producing departments, reliable labor time standard can be developed. In some cases it is impractical to estimate direct labor cost except in terms of averages based on experience.

D. Four Sources or Approaches commonly used in Planning Standard Labor Times are as follows:

1 Time and Motion Studies

The individual engineers analyze about the fastest, slowest or average employee that should be used. Time and motion studies can provide reliable information about the labor time needed to perform each specific operation or production. When supervised by competent industrial engineers, time and motion studies generally represent the best approach to the planning of standard labor time.

2 Standard Cost

With the help of standard cost accounting system, we can provide standard times taken for the production or operation.

3 Direct Estimate by Supervisors

The supervisors of production department can provide standard direct labor hour by his judgment, recent and past performance of the department, assistance from the next level of management and technical staff personnel.

4 Statistical Study

Under this approach, the historical ratio of direct labor hours to some measure of physical output is computed and then adjusted for planned change in the responsibility center. The accuracy of this method demands on the reliability of the cost records and uniformity of the production process from period to period.

2.9.5 Overheads Budget

A. Introduction

To accomplish planning control objectives of the organization, overhead budget also plays a significant role. It is important for every organization to classify expenses by responsibility, designated as controllable or non-controllable and estimated with respect to their cost behavior pattern. Managers should view expense planning and control as necessary to maintain reasonable expenses levels to support the objective and planned programs of the enterprise. Expense planning should not focus on decreasing expense, but rather in better utilization of limited resources. Viewed in this light, expense planning and control should focus on the relationship between expenditures and benefits derived from those expenditures. The desired benefits should be viewed as goals, and sufficient resources must be planned to support the operating activities essential for their accomplishment. The planning and controlling the three broad categories of expenses are (i) factory or manufacturing overheads (ii) selling and distribution overheads, and (iii) general administrative expenses (Welsch, et al., 2001; 302).

The knowledge of cost behavior which is essential in cost planning and control is the response of a cost to different volume of output. There are three kinds of expenses. Which are viewed in relation to changes on output? They are as follows-

1. **Fixed Expenses**

   The expenses, which are constant in total form within relevant range and given, set at condition. For example, salaries, property taxes, insurance, depreciation etc.

2. **Variable Expenses**

   The expenses changes in total directly with changes in output or volume or work done. For example, direct material, direct labor etc.

3. **Semi-variable expenses**

The expenses which are neither fixed nor variable and posses some features of both are semi-variable expenses. It changes in same direction but not in proportion of output changes.

B. Factory or Manufacturing Overhead Budget

Manufacturing overhead is that part of total production cost which is not directly identifiable with specific predictor jobs. Manufacturing overhead consists of (i) indirect material (ii) indirect labor and (iii) all other miscellaneous factory expenses, such as taxes, insurance, depreciation, supplies, utilities and repairs. Manufacturing overhead includes many dissimilar expenses. Therefore, it causes problems in the allocation of these costs to productions. This is the total of indirect material cost, indirect wages and indirect expenses of the factory (Welsch, et al., 2001; 307). While developing the manufacturing overhead budget, the following steps should be taken-

i. Compute the planned departmental output or activity by translating the requirements specified in the production plan into output or activity in each department.
ii. Plan departmental overhead expenses.
iii. Allocate the planned departmental expenses to the producing departments.
iv. Allocate the producing department expenses to the products.

From the above steps, per unit overhead rates for each product could be computed and by adding the direct material cost and direct labor cost for each product, we are in position to compute the cost of goods manufactured. Manufacturing overhead involves the following two problems-

i. Control of manufacturing or factory overhead.

ii. Allocation of manufacturing or factory overhead to products manufacturing.

C. Selling and distribution expenses (Overhead) Budget

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 total expenses. Careful planning of such expenses affects the profit potential of the firm (Welsch, et al., 2001; 313). The two primary aspects of planning distribution expenses are as follows-

a) Planning and coordination.
b) Control of distribution expenses.

Fundamentally, the top marketing executive has the direct responsibility for planning the optimum economic balance between (i) the sales budget, (ii) the advertising budget, and (iii) the distribution expenses budget. Therefore profit planning and control views sales, advertising and distribution expenses as one basic problem rather than as three separate problems. All these expenses must be planned by responsibility center.

D. Administrative Expenses Budget

Expenses other than manufacturing and distribution are included in administrative expenses. These expenses are incurred in the responsibility center that provide supervision and service to all functions of the enterprise, rather than in the performance of any one function. Because of a large portion of administrative expenses are fixed rather than variable and they cannot be controlled. Beside from certain top management salaries, most administrative expenses are determined by management decisions. It is common to find administrative expenses 'Top heavy' when measured by the volume of business done. The administrative expenses center, after preparation by the respective managers, should be subject to approval by higher management in the same manner was discussed for all other budgets. It is advisable to base budgeted administrative expenses on specific plan and programs. Past experience, adjusted for anticipated changes in management policy and general economic condition is helpful. Because most administrative expenses are fixed, an analysis of the historical record will often provide a sound basis for budgeting them (Welsch, et al., 2001; 316-317).

2.9.6 Capital Expenditure Budget

Capital expenditures are investments because they required the commitment of resources today to receive higher economic benefits in the future. Capital expenditures become expenses in the future as their related goods and services are being used to earn higher future profits from future revenues or to achieve future cost saving.

A. Introduction

A capital expenditure is the use of funds to obtain operational assets that will (a) help to earn future revenues or (b) reduce future cost (Welsch, et al., 2001; 394). Capital expenditures budget is the firm's formal plan for the expenditure of money to purchase fixed assets. It is an internal corporate document that lists the allocated investment projects focal period (Handerson, et al., 1984; 119).

Capital budgeting may be decided as the decision making process by which firm evaluates the purchase of major fixed assets including building, machines and equipments. It is a part of the firm's formal planning process for the acquisition and investment of capital (Hampton, 1976; 245). Capital projects are those that are expected to generate returns for more than one year. Capital budgeting refers to the process of planning capital projects, raising funds efficiently allocating resources to those capital projects.

Capital budgeting involves the generation of investment proposals: the estimate of cash flows for the proposals, the evaluation of cash flows; the selection of projects based upon an acceptance criterion, and finally, the continual revaluation of investment projects after their acceptance (Van Horne, 1976; 66). Thus it is clear that capital budgeting is the process of determining capital investment. It is developed by responsibility center and time periods.

B. Capital Expenditure Budget Process

The management should design a systematic process to develop the long-term and short-term capital expenditure budget because of the importance of sound capital expenditure decisions. The primary phase of a yearly budget process for planning and controlling capital expenditures are summarized below (Welsch, et al., 2001; 400-401).

Phase Component (activity)-

1 Identify and generate capital addition projects and other needs, this activity should be continuous in most cases.

2 Develop and refine capital additions proposal collection of relevant data about each proposal, including any related alternatives.

3 Analyze and evaluate all capital additions, proposals, and alternatives. Emphasis should be given to the validity of the underlying financial and operational data.

4 Make capital expenditure decisions to accept the best alternative and assignment of project designations to select alternatives.

5 Develop the capital expenditures budget.

   a) Strategic plan–replan and extend the long- term plan by dropping the past year and adding one year into the future.

b) Tactical plan–develop a detailed annual capital expenditures budget by responsibility center and by time that is consistent with the comprehensive profit plan.

6 Establish control of capital expenditure during the budget year by using periodic and special performance report by responsibility centers.

7 Conduct post completion audits and follow–up evaluation of the actual result from capital expenditures in periods after completion.

C. Capital Expenditure Decisions

The conical capital expenditure decisions are the choices of management from the competing capital expenditures alternatives (e.g. projects). Such decisions must focus on two over riding problems-

a. *Investment Decisions*- Selecting the best alternatives based on their economic worth to the company-called investment worth.
b. *Financing Decision*- Determining the amounts and sources of funds needed to pay for the selected alternatives. This cash constraint may necessarily limit the projects and proposals that can be initiated.

D. Methods of measuring the economic value of a capital Expenditure

Numerous method of measuring the economic value, also called investment worth of an investment, is developed. The most widely used methods for this propose are as follows-

1. *Discounted Cash Flow (DCF) Method.*
   a. Net Present Value (NPV)
   b. Internal Rate of Return (IRR)
2. *Short-Cut and Simple Method.*
   a. Pay Back Period (PBP).
   b. Accounting Rate of Return (ARR)

1. **Discounted Cash Flow Method**

Discounted cash flow method has two other sub-methods which are as follows-

a) Net Present Value (NPV) Method

This method compares the present value of the net cash inflows with the present value of the initial net cash cost of capital expenditure project. The amount difference between these two present values called net present value. The net cash inflows are discounted to present value by using a target or minimum rate of return. The formula for calculating NPV is-

$$NPV = \sum \frac{A^t}{(1 + K)^t} - C$$

Where,

Σ = Sum of different year's transactions

K = Cost of capital or target rate of return

T = No. of years

C = Initial cash outlay (investment)

A = Expected cash inflows.

b) Internal Rate of Return (IRR) Method

The IRR is the rate that will discount all the future net cash inflows so that their discounted sum will exactly equal to initial outflows of the investment project. The formula for calculating IRR is-

$$A_0 = A_{1/1+r} + A_{2/(l+r)}{}^{2} \ldots\ldots\ldots\ldots + A_n/(l+r)^n$$

Where,

R = IRR

A_0 = Initial investment time zero

A_1, A_2, A_n= Cash Inflows at future

2. **Shortcut and Simple Methods**

This method does not consider the time value of money. There are mainly two methods of simple method, which are as follows-

a. **Pay Back Period (PBP)**

This method computes the payback period, which is number of years the takes to recoup cash investment from the annual net cash inflow from investment. The formula is

BEP (in years) = NCO/ACFAT

Where,

NCO = Net Cash Outlay (Investment)

ACFAT = Annual Cash Inflow after Tax

b. **Accounting Rate of Return or Average Rate of Return (ARR)**

This method represents the ratio of the average annual profits to the investment in projects. The formula is

ARR = (ACF/I) x 100

Where,

ACF = Average Cash Flow

I = Investment

From the above, after analyzing the methods of measuring capital investment, the decision criteria can be summarized as follow-

Methods	**Accepted Project**
1. NPV	*Higher the NPV*
2. IRR	*Higher the IRR or*
	IRR > Cost of Capital (K)
3. PBP	*Lower the PBP*
4. ARR	*Higher the ARR*

2.9.7 Planning and Controlling Cash Flows

A. Cash Budget

A comprehensive profit planning and control or managerial budgeting program establishes the foundation for realistic cash budget. To plan, control and safeguard the cash assets of the enterprise is one of the important responsibilities of the management. The planning and control of the cash inflows and cash outflows is important and cash budget is an effective way for this. Cash budgeting not only plans and controls the cash inflows and outflows but also assess cash needs and effectively use excess cash. The cash plan or budget is prepared from the previously completed budgets such as the sales, materials, and labor, overheads and capital expenditure budgets. A cash budget shows the planned cash inflows, outflows and ending position by interim periods 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 including in the annual profit plan. A cash budget basically includes two parts- (i) The planned cash receipt (inflows) and (ii) the planned cash disbursement (outflows).

Planning cash inflows and outflows gives the planned beginning and ending cash position for the budget period. Planning the cash inflows and outflows will include (i) the need for financing probable cash deficits or (ii) the need for investment planning to put excess cash to profitable use. The cash budget is directly related to other plans, such as sales plan, accounts receivable and the expense budgets and the capital expenditures budget. The primary purposes of the cash budget are as follows (Welsch, et al., 2001; 433-434)-

1. Give the probable cash position at the end of each period as a result of planned operations.
2. Identify cash excesses or shortages by time periods.

3. Establish the need for financing and/or the availability of idle cash for investment.
4. Coordinate cash with (a) total working capital (b) sales revenue (c) expenses (d) investments (e) liabilities.
5. Establish a sound basis for continuous monitoring of the cash position.

B. Techniques for Improving Cash Flows

Planning the cash flow of 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. To accomplish this object, the management should focus on (a) the cash collection process to speed-up cash collection (b) the cash payment process to show-down the payments of cash and (c) the investment policies for the immediate investment of idle cash balances to maximize interest earnings. Some of the ways often used to improve the efficiency of the cash collection process are as follows (Welsch, et al., 2001; 454-455)-

1. Review the lag form the data of sales of goods and services on credit to the mailing of (a) invoices (b) the first billing.
2. If cash discounts are given to customers for early payment, review their effect on early cash collection and whether the discount is too high or too low.
3. Review the credit granting process to determine whether bad credit risks are being screened out.
4. Consider ways to decrease the time between the date that customers pay by check and the date that the cash is available for use in the company's bank account.

Some of the ways often used to improve the efficiency of the cash payment process are as follows-

1. Make all payments on the latest non-penalty day. Do not pay early.
2. Make all payments by check, preferably on Friday to maximize the float in favor of the company.
3. Take all cash discounts allowed for early payment.
4. Establish a policy of no cash advance to both outsides and employees.
5. Establish policies, and a payment process to minimize the possibility of fraudulent payments by company's employees.

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 investments.

2.10 Completion and Implementation of the Profit Planning

2.10.1 Completion of the Annual Profit plan

The development of an annual profit plan ends with the planned income statement, the planned balance sheet and the planned statement of cash flows. These three statements summarize and integrate the detailed plans developed by management for the planning period. They also report the primary impacts of the detailed plans on the financial characteristics of the company. Before redistributing the completed profit plan, it is generally desirable to recast certain budget schedules. So that technical accounting mechanics and jargons are avoided as much as possible. The redesigned budgeted schedules should be assembled in a logical order, reproduced and distributed before the first day of the upcoming budget period. The profit plan complication date is important;

issuance of a profit plan after the beginning of the budget period is one sure way of destroying much of the budget potential. Timely completion of the planning budget suggests the need for a budget calendar (Welsch, et al., 2001; 466-467).

2.10.2 Alternatives in Developing the Profit Plan

Profit plan development might suggest that once the sales plan is completed, this can be followed by a series of simple clerical activities that result in the production, inventory, purchase, labor and material budgets. This view is misleading because it ignores the fundamental importance of decision- making, policy formulation and consideration of alternative actions throughout the planning process. The development of decisional inputs and the preparation of a sub-budget by the manager of each responsibility center is the heart of a comprehensive profit planning and control program. The important areas where planning alternatives must be considered and choice made are as follows-

1. Setting of pricing policy to fix sales price.
2. Development of general advertising policies.
3. Sales territory and sales force expansion or contraction.
4. Sales mix refers to the relative sales emphasis given to the various products sold by the company.
5. Balance between sales, production and inventory levels.
6. Research and development expenditures.
7. Capital expenditures.
8. Testing alternative decisions.

If the profit is satisfactory, preparation of the profit plan can be continued. If the profit is unsatisfactory, management should re-examine the alternative decisions (approvals) made to date (Welsch, et al., 2001; 468-470).

2.10.3 Implementing the profit plan

The ultimate test of whether the effort and cost of developing a profit plan are with while is its usefulness to management. The plan should be developed with the conviction that the enterprise is going to meet or exceed all major objectives. Participation enhances communication. If this principle is to be effective, the various executives should have a clear undertaking of their implementation responsibilities. The copies of the complete profit plan should be prepared and distributed to the vice presidents and to the head of certain staff groups. The guiding principle in establishing the distribution policy might to be provided one copy to each member of the management team according to their overall responsibilities, taking into account the problem of security. The distribution policy should allow distribution of parts of the profit plan to middle and lower management.

After the distribution of the profit plan, a series of profit plan conferences should be held. The executives comprehensively discuss the plans, expectations and steps in implementation. At this top-level meeting, the importance of action flexibility and continuous control should be emphasized. In essence, each manager has to realize that the budget is a tool for his or her use. Conferences should be held so as to convey the profit plan to each level of management. The manager of each responsibility center obtains an approved profit plan for his center and it becomes the basis of current operations and exerts considerable coordinating and controlling effects (Welsch, et al., 2001; 471-472).

2.11 Analysis in Budgeting

Profit planning or managerial budgeting is one of the most important tools itself to analyze the company's overall performance. There are so many tools used in budgeting analysis. But most prominent tools like ratio analysis and cost-volume-profit analysis are defined here.

2.11.1 Ration Analysis

Ratio refers to the numerical relationship between two variables. It is one number expressed by dividing one item's relationship with the other. It is very powerful tool of company's strength, weakness, opportunity and threat analysis. Hence ratio analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of financial statement. There are several types of ratio used in profit planning or managerial budgeting but some useful of them are as follows-

1. *Liquidity Ratio*
2. *Leverage Ratio*
3. *Profitability Ration*
4. *Activity Ratio*

Ratio analysis can be inevitable to the management in the discharge of its basic function of forecasting, planning, co-ordination, communication and control. 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 indeed becomes an integral part of profit planning system (Goyal & Manmohan, 1997; 496).

2.11.2 Cost-Volume-Profit Analysis

Cost volume profit analysis is the prominent management tool to reveal the relationship between the elements of profit planning. The whole picture of profit planning is associated with the cost-volume-profit interrelationship. Under constant underlying condition, C-V-P can be used for break even analysis and contribution margin analysis. C-V-P analysis technique summarizes the efforts of changes in an organizations volume of activity on its costs, revenue and profit. Managers in non-profitable organization also routinely use C-V-P analysis to examine the effects of activity and other short run changes on revenue and costs (Hilton, 1997; 349-350). In short, Cost-Volume-Profit analysis examines the behavior of total revenue, total costs, and operating income as changes occur in the output level, the selling price, the variable cost per unit and fixed cost of a certain product. C-V-P analysis provides management with a comprehensive overview of the effects on revenue and costs. C-V-P analysis technique is considered as the prominent tool of profit planning or managerial budgeting (Horngren, et al., 2003).

2.12 Performance Evaluation

Performance reporting for internal management use is an important part of a comprehensive profit planning and control system. The performance reporting phase of a comprehensive profit planning and control program significantly influences the extent to which the organizations planned goals and objectives are attained (Welsch, et al., 2001; 542).

Performance reporting is an important phase of the control process. It is usually prepared on a monthly basis and follows a standardized format from period to period. Such reports are designed to facilitate internal control by the management. They should be composed of carefully selected series of data related to each responsibility center. Fundamentally, the report (actual results) compared with goals and budget plans. Frequently, they identify problems that require special reports, are designed to pin point both efficient and inefficient performance. The comprehensive profit planning and control or managerial budgeting and performance report are vital because the activities of all sub units must be focused on enterprise objectives. The central objective of performance reports is the communication of performance measurements, actual results and the related variances. The performance to budget report is the management report that affects the operating manager's efforts to live within and beat his budgets allowances. Performance reports should be prepared by considering the following criteria-

1. Tailored to the organizational structure and focus of controllability.
2. Designed to implement the management by exception principle.
3. Repetitive and related to short time periods.
4. Adapted to the requirements of the primary users.
5. Simple and understandable report is only essential information.
6. Accurate and designed to pinpoint significant distinctions.
7. Prepared and presented promptly.
8. Constrictive in tone.

2.13 Review of Previous Research Work

Very few researches have been made in areas of profit planning or managerial budgeting in the context of Nepal is manufacturing organization. Whatever, have been made, are also not in depth. Few dissertations have been submitted in the topics of profit planning in Nepal. Some researches which have been submitted are reviewed here.

2.13.1 Phanindra Raj Kharel

Mr. Phanindra Raj Kharel (2006) has made research on *"Budgeting Practices in Public Manufacturing Enterprises: A Case Study of Dairy Development Corporation"* in partial fulfillment of the requirements for the degree of Master of Business Studies (MBS), submitted to Office of the Dean, Faculty of Management (T.U.). In this Study, he has prominently pointed out the following major key conclusions, which are as follows-

Objectives of the Study:

1. To analyze the sales revenue trend to DDC.
2. To analyze the various functional budgets adopted in DDC.
3. To analyze the production function, overhead and other reasonable activities of DDC.
4. To analyze variance and ratio analysis of DDC.
5. To recommend measures and suitable suggestions to the corporation.

Findings of Study:

1. There is obvious deviation between budgeted sales and Achievement.
2. DDC has not utilized its available capacity according to its need. That's why there is huge loss increased every year.
3. Personnel Management is very poor. Employees are not also satisfied to the working style and environment of DDC.
4. The top level executive are only involved in planning and decision-making and lower level participation is not encouraged.
5. DDC has depended on rural farmers but it does not provide any training to the farmers.

Recommendations:

1. DDC should try to focus and prepare long range forecasting of profit planning.
2. The main problem of sales decrement is poor collection of milk. So, DDC must try to increase collection by increasing chilling centers and collection network.
3. Budgeted sales of DDC are very high but actual sales are below the breakeven point. Thus, DDC must reduce variable cost and increase the product price.

4. DDC should develop its specific goals for the coming period budget i.e. net profit on sales, net profit on capital employed, sales revenue etc. in profit planning.
5. The budget should be prepared on the realistic ground i.e. sales budget, production budget, purchase budget, labor budget etcetera. And overall profit planning.
6. Organizational structure should be maintained effectively to get high efficiency in operation of profit plan.

2.13.2 Suresh Kumar Timsina

Mr. Suresh Kumar Timsina (2006) has conducted a research in the topic of *"Managerial Budgeting as the Tools of Increasing Efficiency of Manufacturing Industries: A Case Study of Surya Rosin and Turpentine Industries"*. The study covers only five years period from FY 2057/58 to 2061/62. He has pointed out the some key points which are as follows-

Objectives of the Study:

1. To analyze the managerial budgeting (profit planning) applied in SRTI.
2. To analyze the major functional and financial plans formulated and implemented in SRTI
3. To examine the outcome of those plans in terms of achievement.
4. To point out possible suggestions and recommendations to improve the performance of SRTI with the means to profit planning system.

Findings of the Study:

1. The industry is not working in full capacity. The highest utilized capacity is 76.00% which is in FY 2061/62.
2. The company is suffering from high fixed cost. And cost classification skill still exists.
3. There is lack of skilled planners for profit planning and control.

4. Inventory policy has not been maintained because of fluctuation in demand of Indian market.
5. SRTI has not prepared various functional budgets for the application of existing budgets. There is no system of taking corrective action for re-planning.

Recommendations:

1. SRTI should have in depth analysis of the industry's strengths and weaknesses. It should try to overcome its weaknesses by using the strength.
2. SRTI should utilize full capacity to increase its production and to generate more income.
3. System of periodical performance report should be strictly followed. And SRTI should have an effective as well as scientific record system of the essential documents.
4. Finished goods inventory and raw material inventory volume should be reduced to optimum level. So it will reduce idle current assets.
5. To make managerial budgeting system more progressive, the effective implementation of management system is very essential.

2.13.3 Geha Nath Koirala

Mr. Geha Nath Koirala (2006) has conducted a research in the topic of *"Managerial Budgeting as a Tool of Increasing Efficiency of Public Enterprise: A Case Study of Nepal Electricity Authority"* in partial fulfillment of the requirements for the degree of Master of Business Studies. The study covers only five years period from FY 2057/58 to 2061/62. In this Study, he has prominently pointed out the following major key conclusions-

Objectives of the Study:

1. To analyze the various functional budgets of NEA.

2. To analyze the true picture of managerial budgeting adopted by NEA.
3. To analyze the variance between budget and actual achievement of the authority.
4. To point out the major shortcomings and recommend suggestive measures.

Findings of the Study:

1. Actual sales are more fluctuating than budgeted sales and budgeted production is more fluctuating than actual production.
2. NEA has been suffering from loss for the FY 2057/58 to 2061/62.
3. Actual sales are always less than actual production due to power loss which is a main problem of NEA, which affects it profit. The actual sales is below the BEP sales, therefore it was at loss every year.
4. NEA has been paying huge amount of interest on long-term loan.
5. NEA has high fixed cost. And the company has not maintained its periodic performance report systematically.
6. The information system of NEA is not effective. The lower level staff normally could not get information about overall operation.

Recommendations:

1. Sales budgets should be prepared on the realistic ground. Sales forecast should be made after analyzing all variable that affect the sales of NEA.
2. NEA has suffered huge amount of loss due to the high burden of overhead costs. So, it should have an efficient management system to have control over costs. It must be maintained fixed cost to the minimum level.
3. NEA should utilize all its available capacity which help to increase its sales revenue by the help of effective capacity management.

4. NEA should invest many projects and all available resources properly. It should consider cost-benefit-ratio while selection and invest of projects.
5. Load shading is big issue in Nepal. The authority should try to avoid load shading which help to increase its net profit.
6. NEA should adopt systematic approach of managerial budgeting which is indeed essential for the increment of the entire profitability of the authority. NEA should have proper co-ordination between budget formulation, implementation and evaluation of achievement.

2.14 Research Gaps (Difference between Previous Research and This Research)

Almost all the research studies maintained previously about the profit planning system is basically related to the planning system of manufacturing industries. All these studies have pointed out that there is no proper profit planning system and recommended for the effective implementation of profit planning system or managerial budgeting. Probably most of the research studies are concentrated to state public or government owned enterprises. And none of the previous studies have attempted to analyze the profit planning system or managerial budgeting system of sole conducted industry. But this study certainly has tried to present the overall impact of budgeting on the profitability of private manufacturing industry. By this study, the system of preparing budgets and their uses to ensure the budgeted profit related problems and limitations of profit planning or managerial budgeting of manufacturing industry conducted from private sector will be known which will obviously be useful to all the industrial entrepreneurs.

Nebico is one of the pioneer manufacturing industries of Nepal established in 1964 B.S. which has been producing its qualitative biscuits and confectioneries products from its establishment. This research study is mainly focused on the current practice of managerial budgeting and its impact on the profitability of Nebico. And the study has tried to indicate the need and role of budgeting for the effectiveness of the manufacturing industry Nebico Pvt. Ltd.

CHAPTER-THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology is, indeed, a systematic, scientific and planned way of collection, analysis and interpretation of data and facts to solve the research problems and accomplish the basic objectives to the study. This study is carried out to analyze, examine and interpret overall performance of the company by the help of Managerial Budgeting. In other word, the basic objective of the present research report is to highlight the current practice of managerial budgeting in the company and its effectiveness to the company Nebico. The research methodology is followed to achieve the basic objectives and goals of this research work. Followings are the major and prominent contents of research methodology followed in course of this dissertation.

3.2 Research Design

Research design is the planned structure and strategy of investigation conceived so as to obtained answer to research question and to control variance. The research design of the study is analytical as well as descriptive approach. This study is mainly an examination and evaluation of budgeting procedure in the process of overall planning of Nebico Pvt. Ltd. This study is closely related with the various functional budgets and other accounting statements as well as actual results of the budget. All the collected data and information are presented in an analytical method. But the qualitative aspect of the research are such as effectiveness of managerial budgeting in Nebico, problem of formulating and implementing the profit plans, views of top personnel of the company and the theoretical prescription are explained wherever necessary.

3.3 Nature and Sources of Data

For the fulfillment of the objectives of the study, mainly primary as well as secondary data have been used. Primary data are collected through questionnaires as well as interview with the related officials and other staff of the company. And the Secondary data have been collected from the published documents of Nebico, other books, booklets and magazines and similar prevailed dissertations and other publications. Data requisition slip of Nebico is presented in appendix.

3.4 Period Covered

The study covers a time period of 5 years from the FY 2061/62 to 2065/66. Data are taken from Nebico and the analysis is basically made on the basis of these five years data. For the purpose of the tactical analysis of Budgeting, data are taken from the fiscal year 2065/66. Both Budgeted and Actual data are taken from the same year of the fiscal year 2065/66.

3.5 Presentation and Analysis Method

Data collected from various sources are managed, analyzed and presented in proper table and formats. Such table and formats are interpreted and explained wherever necessary. To analyze the collected data, financial and statistical tools mainly used are Financial Ratio, CVP analysis and Flexible Budgets. Similarly, the Statistical tools used are Mean, Correlation, Regression Line, Time Series, Co-efficient of Variance, Standard Deviation, Graphs and Diagrams etc as per need.

3.6 Research Variable

The research variables of the study are mainly related with the accounting statement of Nebico. Generally, Sales, Production, Inventories, Purchase, Expenses, Capacity Utilization & Man Power Planning, Capital Expenditure, Profit & Loss, Cash Flows and Balance Sheet of Nebico are the prominent Research Variables of this study.

3.7 Research Question

This research study is concentrated to answer to the following questions to fulfill the objectives of the study-

1) What obstacles are being faced by Nebico for not getting its objectives fulfilled?
2) To what extent the procedure of budget formulation is followed by Nebico.
3) What steps should be taken to improve the profitability of Nebico.
4) What are the overall managerial problems and what suggestions can be recommended for their proper solution?

CHAPTER-FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

Managerial Budgeting is a systematic approach for attaining effective management goals. Profit is the primary measure of business success in any enterprise. The primary purpose of Managerial Budgeting of business enterprise is to increase the chances of making profit. Comprehensive managerial budgeting continues to be of prime importance in virtually all organizations. Planning involves the control and manipulation of relevant variables (controllable and non-controllable) and reduces the impact of uncertainty so that the enterprise could be saved from the chances of making losses. Private enterprises are established due to ineffective and inefficient performance of public enterprise. So, like public enterprises, they are also responsible to prepare infrastructure services, to produce the required goods in the country, to help in controlling the price situation, to increase government revenues and to contribute significantly in the national development as well as to assist in the country's economic advancement.

4.2 Sales Budget of Nebico Pvt. Ltd.

A Sales Budget is a forecast of what the company can expect to sale during a budget period. It is a forecast of total sales expressed and incorporated in quantities and value for a certain period. Sales Budget is the initial and most prominent stage of overall budgeting procedure. It is a major base for preparing all other budgets like production budget, raw-material budget etc. Sales budget affects all other budgets. If sales budget is wrongly planned and prepared, all other budgets would be wrong. So it is indeed a nerve centre or backbone of the organization and the organization should focus specially on the sales budget while preparing overall budgets.

Generally Sales budget is prepared by product, time and territory. Sales budgets are divided into two types on the basis of time coverage. If sales budget is prepared for a year, it is called tactical sales budget and if it is prepared for more than one year is called strategic sales budget. Nebico Pvt. Ltd. prepares short-term and long-term sales budgets. According to the nature and market area, Nebico categorized its sales into primary sales and secondary sales where primary sales indicates regular sales and secondary sales indicates institutional sales like sales for schools and hospitals. Nebico has been preparing sales budget in units and rupees from its earlier stage of budgeting.

4.2.1 Sales Budget (Biscuits)

The following table represents the budgeted sales and actual achievement of biscuits sales of Nebico in units and rupees from the fiscal year 2061/62 to 2065/66-

Table-4.1

BUDGETED SALES & ACTUAL ACHIEVEMENT (BISCUITS)

F/Y 2061/62 to 2065/66

Fiscal Year	Quantity ('000')			Value ('000')		
	Budgeted	Actual	Ach. %	Budgeted	Actual	Ach. %
2061/62	1724.49	1700.69	98.62	134.104	120.995	90.22
2062/63	1678.06	1644.16	97.98	134.447	130.601	97.40
2063/64	1602.80	1432.26	89.36	124.303	112.146	90.21
2064/65	1528.07	1380.92	90.37	112.507	101.774	90.46
2065/66	1635.42	1518.65	92.86	121.504	111.747	91.97
Average	**1633.77**	**1535.34**		**125.373**	**117.922**	

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.1 signifies the budgeted sales and actual achievement of Nebico Pvt. Ltd. The table shows that the lowest sales achievement is in F/Y 2063/64 which 89.36% of budgeted sales and the greatest achievement is in F/Y 2061/62 which is close to the budgeted sales i.e. 98.62% of budgeted sales. Similarly, in the F/Y 2063/64 actual sales revenue is Rs.112.14 millions which is the lowest achievement (i.e. 90.21% of budgeted sales of the company in the period of fiscal years but the greatest achievement of sales for the company is Rs.130.601 (i.e.97.40% of budgeted sales) which is in the F/Y 2062/63. Though the actual sales figure have not exactly met the budgeted sales figures, actual achievement of sales shown in the table was satisfactory. That is to say, actual sales achievement is near to the budgeted sales.

Statistical Tools to Analyze the Relationship between Budgeted and Actual Sales of Biscuits

In order to find out the nature of variability of budgeted and actual sales of different years, it is necessary to calculate the value of Arithmetic Mean, Standard Deviation and Co-efficient of Variance (C.V.) of the budgeted and actual sales figures of Nebico. The details of results of these statistical tools are presented in Appendix-1. The summarized results from the appendix can be shown as below-

Table-4.2

BUDGETED & ACTUAL SALES RELATIONSHIP (BISCUITS)

Statistical Tools	Budgeted Sales	Actual Sales
Arithmetic Mean	1633.77 MT	1535.34 MT
Standard Deviation	66.82 MT	121.60 MT
Co-efficient of Variance	4.09%	7.92%

Source: Appendix-1

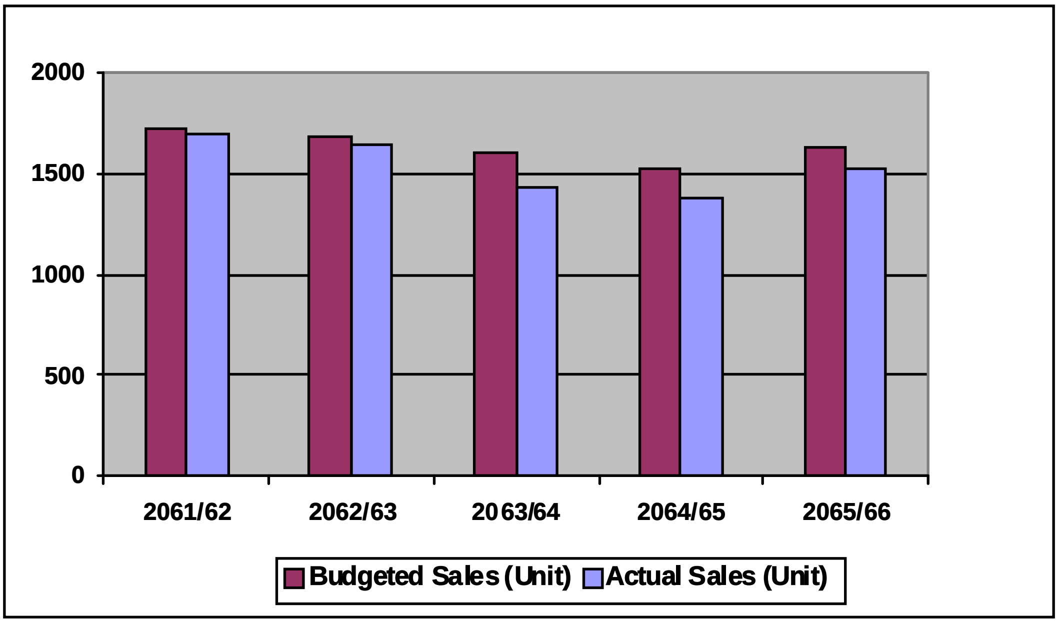
The table no. 4.2 shows the result of statistical calculation which indicates that the actual sales achievement is strongly near but less than the budgeted sales.

The actual sales are more variable than that of budgeted sales because the co-efficient of variance (C.V.) of actual sales is higher than budgeted sales. Lower the C.V. is said to be more homogeneous or uniform or less variable than others. The calculated mean of budgeted sales is 1633.34 units in MT where as actual sales is 1535.34 MT. Similarly, the deviated value of actual sales is 121.60 which are greater than budgeted sales of 66.82 units in MT. The target and actual sales of five fiscal years can be presented in the following graphical form-

Figure-4.1

BUDGETED & ACTUAL SALES UNITS (BISCUITS)

FY 2061/62 to 2065/66



The graphical presentation of figure no. 4.1 shows that the actual sales don't meet the budgeted sales. However, every sales figure is almost near to the target sales. Both budgeted and actual sales figures are in upward trend.

Another statistical tool to analyze the relationship between actual sales and budgeted sales is Correlation Co-efficient. It can be found with the help of

‘Karl Pearson’s Co-efficient of Correlation measures the degree of association between budgeted and actual sales figures. If actual sales are as like as budgeted sales, it is proved that there is positive correlation between budgeted and actual sales but if it is not as like as budgeted, it is negatively correlated. To find out the value of (r) the budgeted sales are assumed as independent variable (X) and actual sales are assumed as dependent variable (Y). The calculated value of correlation coefficient (r_{xy}) is 0.9675 (see appendix-1) which proves that there is positive and close correlation between budgeted and actual sales. On the other hand, for the significance of correlation between budgeted and actual achievement of sales, (r) should be tested by the help of “Probable Error of r”. The calculated value of Probable Error of r is 0.02 (see appendix-1) which really indicates that the correlation co-efficient (r) is significant because ‘r’ is greater than ‘Probable Error of ‘r’ (i.e. 0.9675>0.02). This means that the actual sales will go to the same direction of budget.

Another statistical tool to analyze the degree of relationship between budget and actual achievement of sales is Regression Equation Line. The Regression equation helps to determine the expected sales achievement with the given budget figure. For this purpose, actual sales are assumed to be dependent which is denoted bye (Y). Similarly, budgeted sales are assumed to be independent which is denoted by (X). So the Regression Line of actual sales on budgeted sales (i.e. Y on X) can be shown as below-

$$(Y-\overline{Y}) = r\ \sigma y/\sigma x\ (X-\overline{X})$$

Where,

$\overline{Y}$ =Arithmetic Mean of Actual Sales=1535.34 MT

$\overline{X}$ =Arithmetic Mean of Budgeted Sales=1633.77 MT

σy =S.D. of Actual Sales=121.60 MT

σx = S.D. of Budgeted Sales=66.82 MT

r_{xy} =Correlation Co-efficient between Budgeted and Actual Sales=0.9675

Putting the above values into the Regression Equation, we get the following regression equation line,

$$Y-1535.34 = 0.9675 \times (121.60/66.82) \times (X-1633.77)$$
$$Y-1535.34 = 0.9675 \times 1.8198 (X-1633.77)$$
$$Y-1535.34 = 1.7607 (X-1633.77)$$
$$Y-1535.34 = 1.7607X-2876.58$$
$$Y = 1.7607X-1341.24$$

Therefore, the regression line is (Y = 1.7607X-1341.24) which shows that there is positive relationship between budgeted and actual sales. But at the same time, the equation indicates that the actual sales are not greater than budgeted figures. The actual sales will changed by 1.7607 when the value of independent variable (X) changed by one unit. The Regression equation can be used to forecast the expected sales achievement for the coming fiscal year 2066/67. If the budgeted sales for F/Y 2066/67 are 1750.00 units in MT, expected value of actual sales achievement will be as follows-

$$Y =1.7607X-1341.24$$
$$=1.7607x1750.00-1341.24$$
$$=3081.23-1341.24$$
$$=1740.00 \text{ MT}$$

If the relationship between budgeted and actual sales remains the same as in the previous year, then the actual sales for the F/Y 2066/67 should be 1740.00 units in MT as stated by the above regression equation.

Another important statistical tool is Least Square Method. It is also known as Time Series Analysis. This method can also be applied to analyze the trend of actual sales and estimate the possible future sales for a given period of time.

The straight line trend will show the relationship between time and actual sales of the relevant year. To fit this straight line trend, the time factor should be considered as an independent variable (X) and actual sales is considered as a dependent variable (Y) of this time. The straight-line of actual sales (Y) can be expressed as follow-

$$Yc = a + bx$$

Where,

Y =Actual Sales Figure

X =Time Factor

a =Fixed Value

b =Variable Value

Now, calculating the straight line trend by using Least Square Method, we get the following value,

Table-4.3

TIME SERIES ANALYSIS

Fitting Straight-Line Trend (By Least Square Method)

FY 2061/62 to 2065/66

Fiscal Year	Actual Sales in MT (Y)	Mid Time (X)	X^2	XY
2061/62	1700.69	-2	4	-3401.38
2062/63	1644.16	-1	1	-1644.16
2063/64	1432.26	0	0	0
2064/65	1380.92	1	1	1380.92
2065/66	1518.65	2	4	3037.30
	∑Y=7676.68	**∑X=0**	**$\sum X^2$=10**	**∑XY=-627.32**

Source: Annual Report of Nebico Pvt. Ltd.

Here, F/Y 2063/64 is assumed as base year, the value X is 'zero' in this year. The value of (X) is negative before F/Y 2063/64 and positive after F/Y 2063/64. Therefore, by filling the straight-line trend, we get,

$$Yc = a + bx$$

Where,

$a = \sum Y/N = 7676.68/5 = 1535.34$

$b = \sum XY/\sum X2 = -627.32/10 = -62.73$

$\therefore Y = 1535.34–76.51X$

The trend line (Y=1535.34–76.51X) indicates the decreasing sales figures. The sales will be decreased by 76.51 MT every year if the past years sales trend continues for future. With the help of the above trend equation, the value of actual sales can be estimated for the F/Y 2066/67. The value of (X) for F/Y 2066/67 according to the base year 2063/64 is 3. Therefore actual sales for fiscal year 2066/67 is,

$$\begin{aligned} Y &= 1535.34–62.73X \\ &= 1535.34–62.73x3 \\ &= 1535.34–188.19 \\ &= 1347.15 \text{ MT} \end{aligned}$$

If the past trend is not changed, the possible actual sales for F/Y 2066/67 will be 1347.15 units in MT which is in decreasing trend line.

4.2.2 Sales Budget (Confectioneries)

The following table shows the budgeted and Actual sales achievement of confectionery product of Nebico Pvt. Ltd. from fiscal year 2061/62 to 2065/66-

Table-4.4

BUDGETED SALES & ACTUAL ACHIEVEMENT

(CONFECTIONERIES)

F/Y 2061/62 to 2065/66

Fiscal Year	**Quantity ('00')**			**Value ('00')**		
	Budgeted	**Actual**	**Achieve. %**	**Budgeted**	**Actual**	**Achieve. %**
2061/62	12.50	11.28	90.22	1.650	1.521	92.16
2062/63	4.00	3.69	92.37	0.532	0.489	91.86
2063/64	3.25	3.19	98.32	0.436	0.431	98.89
2064/65	9.50	9.42	99.16	1.226	1.207	98.47
2065/66	2.00	1.94	97.18	0.260	0.252	96.81
Average	**6.250**	**5.904**		**0.821**	**0.780**	

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.4 signifies the budgeted sales and actual achievement of confectioneries. The table shows that the lowest sales achievement is in F/Y 2061/62 which 90.22% of budgeted sales and the greatest achievement is in F/Y 2064/65 which is close to the budgeted sales i.e. 99.16% of budgeted sales. Similarly, in the F/Y 2062/63 actual sales revenue is Rs.0.489 millions which is the lowest achievement (i.e. 91.86% of budgeted sales of the company in the period of fiscal years but the greatest achievement of sales for the company is Rs.0.431 (i.e.98.89% of budgeted sales) which is in the F/Y 2063/64. Though the actual sales figure have not exactly met the budgeted sales figures, actual achievement of sales shown in the table was satisfactory. That is to say, actual sales achievement is near to the budgeted sales.

Statistical Tools to Analyze the Relationship between Budgeted and Actual Sales of Confectioneries

To find out the nature of variability of budgeted and actual sales of confectioneries for different years, it is necessary to calculate the value of Arithmetic Mean, Standard Deviation and Co-efficient of Variance of budgeted and actual sales figures. The detail results of these statistical tools are presented in Appendix-2. The summarized results from the Appendix can be shown as below-

Table-4.5

BUDGETED & ACTUAL SALES RELATIONSHIP (CONFECTIONERIES)

Statistical Tools	Budgeted Sales	Actual Sales
Arithmetic Mean	6.25 MT	5.90 MT
Standard Deviation	4.04 MT	3.72 MT
Co-efficient of Variance	64.70%	63.03%

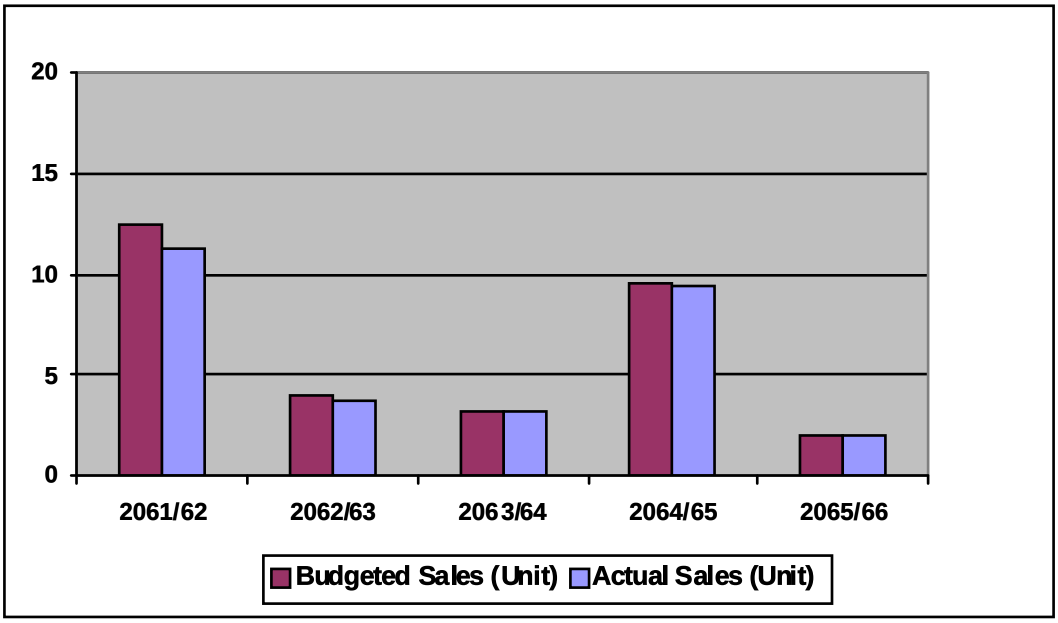
Source: Appendix-2

The table no. 4.5 shows the result of statistical calculation which indicates that the actual sales achievement is strongly near but less than the budgeted sales. The actual sales are less variable than that of budgeted sales because the co-efficient of variance of actual sales is lower than budgeted sales. The calculated mean of budgeted sales is 6.25 units in MT whereas actual sales are 5.90 units in MT. Similarly, the deviated value of actual sales is 3.72 units in MT which is less than the budgeted sales i.e. 4.04 units in MT. The target and actual sales of confectioneries of five fiscal years can be presented in the following graphical form-

Figure-4.2

BUDGETED & ACTUAL SALES UNITS (CONFECTIONIERIES)

FY 2061/62 to 2065/66



The above graphical presentation of figure no. 4.2 shows that the actual sales don't meet the budgeted sales. However, every sales figure is almost near to the target sales. Both budgeted and actual sales figure are in upward trend.

Another statistical tool to analyze the relationship between actual sales and budgeted sales is correlation co-efficient. To find out the value of (r), the budgeted sales are assumed as independent variable (X) and actual sales are assumed as dependent variable (Y). The calculated value of correlation co-efficient (r_{xy}) is 0.9968 (see appendix-2) which proves that there is positive and close correlation between budgeted and actual sales. The calculated value of Probable Error of 'r' is 0.002 (see appendix-2) which indicates that the correlation co-efficient of (r) is significant because 'r' is greater than probable error of 'r' (i.e. 0.9968>0.002). This means that the actual sales will go to same direction of budgeted sales.

Another statistical too to analyze the degree of relationship between budgeted and actual sales achievement is Regression Equation. For this purpose, actual sales is assumed to be dependent denoted by (Y) and budgeted sales is assumed to be independent denoted by (X). Hereby, Regression equation line of actual sales on budgeted sales (i.e. Y on X) can be shown as below-

$$(Y-\overline{Y}) = r\ \sigma y/\sigma x\ (X-\overline{X})$$

Where,

$\overline{Y}$ =Arithmetic Mean of Actual Sales=5.90 MT

$\overline{X}$ =Arithmetic Mean of Budgeted Sales=6.25 MT

Σy =S.D. of Actual Sales=3.72 MT

Σx = S.D. of Budgeted Sales=4.04 MT

r_{xy} =Correlation Co-efficient between Budgeted & Actual Sales =0.9968

Putting the above values into the Regression Equation, we get the following equation line,

$$Y-5.90 = 0.9968 \times (3.72/4.04) \times (X-6.25)$$
$$Y-5.90 = 0.9968 \times 0.9208\ (X-6.25)$$
$$Y-5.90 = 0.9179\ (X-6.25)$$
$$Y-5.90 = 0.9179X-5.7369$$
$$Y = 0.9179X+0.1631$$

Therefore, the regression equation line is (Y=0.9179X+0.1631) which shows that there is positive relationship between budgeted and actual sales. But at the same time, the equation indicates that the actual sales are not greater than budgeted figure. The actual sales will be changed by 0.9179 when the value of independent variable (X) changed by one unit. The regression equation can be used to forecast the expected sales achievement for the coming fiscal year

2066/67. If the budgeted sales for FY 2066/67 are 15.00 units in MT, the expected value of actual sales achievement will be as follows-

$$
\begin{aligned}
Y &= 0.9179X+0.1631 \\
&= 0.9179 \times 15.00+0.1631 \\
&= 13.7685+0.1631 \\
&= 13.93 \text{ MT}
\end{aligned}
$$

If the relationship between budgeted and actual sales remains the same as in the previous year, then the actual sales for the FY 2066/67 should be 13.93 MT as stated by the above regression equation.

Another statistical tool is Least Square Method. To fit the straight line trend, the time factor should be considered as an independent variable (X) and actual sales is considered as a dependent variable (Y) of this time. The straight-line of actual sales (Y) can be expressed and calculated by using least square method which is as below-

Table-4.6

TIME SERIES ANALYSIS

Fitting Straight-Line Trend (By Least Square Method)

FY 2061/62 to 2065/66

Fiscal Year	Actual Sales in MT (Y)	Mid Time (X)	X^2	XY
2061/62	11.28	-2	4	-22.56
2062/63	3.69	-1	1	-3.69
2063/64	3.19	0	0	0
2064/65	9.42	1	1	9.42
2065/66	1.94	2	4	3.88
	$\sum Y=29.52$	**$\sum X=0$**	**$\sum X^2=10$**	**$\sum XY=-12.95$**

Source: Annual Report of Nebico Pvt. Ltd.

Here, FY 2063/64 is assumed as base year, the value of X is 'Zero' in this year. The value of (X) is negative before FY 2063/64 and positive before FY 2063/64. Therefore by fitting the straight-line trend, we get,

$$Yc = a + bx$$

Where,

$a=\sum Y/N = 29.52/5 = 5.90$

$b=\sum XY/\sum X2 = -12.95/10 = -1.295$

$\therefore Y = 5.90 – 1.295X$

The trend line (Y=5.90-1.295X) indicates the decreasing sales figures. The sales will be decreased by 1.295 MT every year if the post years' sales trend continues for future. With the help of the above trend equation, the value of actual sales can be estimated for the FY 2066/67. The value of (X) for FY 2066/67 according to the base year 2063/64 is 3. Therefore actual sales for FY 2066/67 is,

$$\begin{aligned} Y &= 5.90-1.295X \\ &= 5.90-1.295x3 \\ &= 5.90-3.885 \\ &= 2.02 \text{ MT} \end{aligned}$$

If the past trend is not charged, the possible actual sales for FY 2066/67 will be 2.02 units in MT.

To conclude the sales budget of Nebico, following points can be noted out-

1) Nebico followed tactical sales plan and strategic sales plan. But tactical sales plan is prepared for internal purpose where as strategic sales plan is prepared for internal purpose.
2) The overall sales budget analysis is for biscuits & confectioneries product of Nebico.
3) The above analysis shows that there is positive and close correlation between budgeted and actual sales. This correlation co-efficient (r)

between budgeted and actual sales achievement is significant because it is greater than PE (r).

4) Regression equation shows negative autonomous sales units. But the value of X (budgeted sales) is positive which shows the positive relationship with dependent variable (Y).
5) Generally actual sales don't meet the budgeted sales. But the analysis shows that the actual achievement of sales is satisfactory and is near to sales target.
6) Sales of both biscuits and confectioneries products will increase in the future.

4.3 Production Budget of Nebico Pvt. Ltd.

Production budget preparation is the second step in the process of profit planning or managerial budgeting. Without production plan overall profit plan is incomplete. For the purpose of the formulation of profit plan, the sales requirement is to be translated into production plan. The main objectives of the production budget are to fulfill the sales plan requirement. Production plan is based on budgeted sales volume and desired level of inventories. Any changes in sales policy and inventory policy would be reflected in production budget. The responsibility for the preparation and operation of production budget lies with production manger. So, the production manger should be focused on overall production planning. The production budget is normally prepared in quantitative terms such as units of output. Production units can be estimated by the following formula-

Production Unit = (Total Sales Requirement + Desired Ending Inventory – Beginning Inventory)

There are some key points that should be considered seriously while making production plan which are as follows-

1. Total production requirement by product for the planning period.
2. Plant capacity policies and limiting factors.
3. Inventory policies relative to level of finished goods and work-in-progress.
4. Adequacy of manufacturing facilities.
5. Availability of raw-materials and labor.
6. The effect of the length of the processing time.
7. Timing of production throughout the planned period.

The basic products of Nebico are biscuits & confectioneries. So the overall production budget of Biscuits and confectioneries for five fiscal years can be present as below-

4.3.1 Production Budget (Biscuits)

The following table represents the production budget and actual production achievement of Biscuits in metric ton (MT) from fiscal year 2061/62 to 2065/66.

Table-4.7

PRODUCTION BUDGET & ACTUAL ACHIEVEMENT (BISCUITS)

F/Y 2061/62 to 2065/66

Fiscal Year	Quantity ('000')		
	Budgeted	Actual	Achievement %
2061/62	1755.91	1720.80	98.00
2062/63	1676.86	1643.27	97.99
2063/64	1600.87	1430.82	89.38
2064/65	1526.07	1379.48	90.39
2065/66	1638.26	1520.71	92.82
Average	**1639.59**	**1539.02**	

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.7 signifies the budgeted production and actual achievement of Nebico Pvt. Ltd. The table shows that the lowest achievement is in F/Y 2063/64 which 89.38% of budgeted production and the greatest achievement is in F/Y 2061/62 which is close to the budgeted sales i.e. 98.00% of budgeted production. Though the actual production have not exactly met the budgeted production, actual achievement production shown in the table was satisfactory.

Statistical Tools to Analyze the Relationship between Budgeted and Actual Production of Biscuits

In order to find out the nature of variability of budgeted and actual production of different years, it is necessary to calculate the value of Arithmetic Mean, Standard Deviation and Co-efficient of Variance (C.V.) of the budgeted and actual production figures of Biscuits product. The details of results of these statistical tools are presented in Appendix-3. The summarized results from the appendix can be shown as below-

Table-4.8

BUDGETED & ACTUAL PRODUCTION RELATIONSHIP (BISCUITS)

Statistical Tools	Budgeted Production	Actual Production
Arithmetic Mean	1639.59 MT	1539.02 MT
Standard Deviation	76.56 MT	127.60 MT
Co-efficient of Variance	4.67%	8.29%

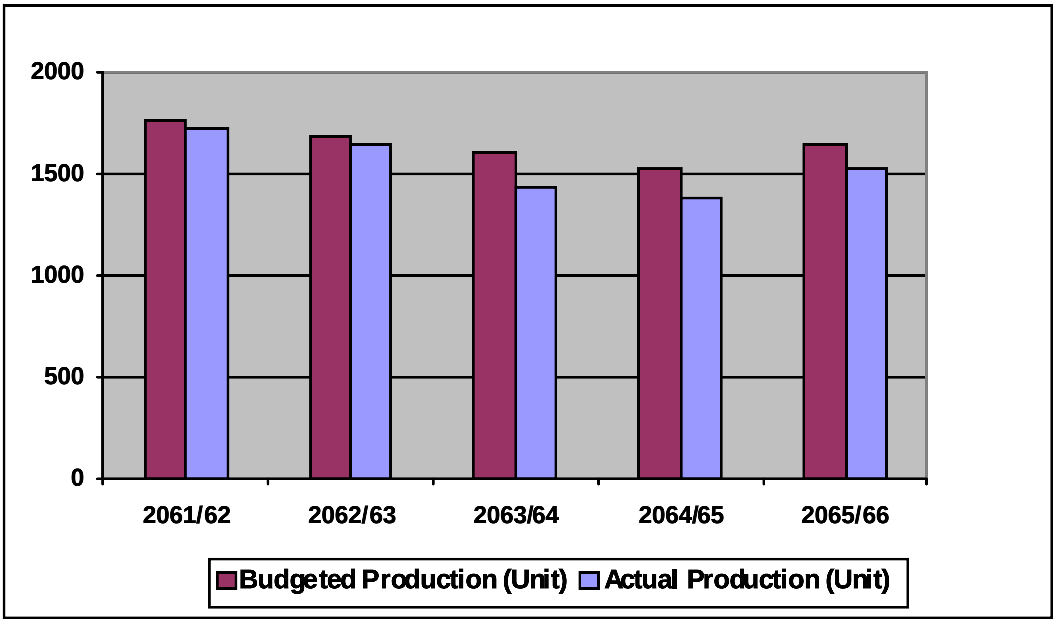
Source: Appendix-3

The table no. 4.8 shows the result of statistical calculation which indicates that the actual production achievement is strongly near but less than the budgeted production. The actual production is more variable than that of budgeted production because the co-efficient of variance (C.V.) of actual production is higher than budgeted production. Lower the C.V. is said to be more homogeneous or uniform or less variable than others. The calculated mean of budgeted production is 1639.59 units in MT whereas the actual production is 1539.02 MT. Similarly, the deviated value of actual production is 127.60 MT which is greater than budgeted production of 76.56 units in MT. The target and actual production of five fiscal years can be presented in the following graphical form-

Figure-4.3

BUDGETED & ACTUAL PRODUCTION UNITS (BISCUITS)

FY 2061/62 to 2065/66



The graphical presentation of figure no. 4.3 shows that the actual production doesn't meet the budgeted production. However, every production figure is almost near to the target production. Both budgeted and actual production figures are in upward trend.

Another statistical tool to analyze the relationship between actual production and budgeted production is Correlation Co-efficient. It can be found with the help of 'Karl Pearson's Co-efficient of Correlation measures the degree of association between budgeted and actual production figures. If actual production is as like as budgeted production, it is proved that there is positive correlation between budgeted and actual production but if it is not as like as budgeted, it is negatively correlated. To find out the value of (r) the budgeted production is assumed as independent variable (X) and actual production is assumed as dependent variable (Y). The calculated value of correlation coefficient (r_{xy}) is 0.9695 (see appendix-3) which proves that there is positive and close correlation between budgeted and actual production. On the other hand, for the significance of correlation between budgeted and actual achievement of production, (r) should be tested by the help of "Probable Error of r". The calculated value of Probable Error of r is 0.02 (see appendix-3) which really indicates that the correlation co-efficient (r) is significant because 'r' is greater than 'Probable Error of 'r' (i.e. 0.9695>0.02). This means that the actual production will go to the same direction of budget.

Another statistical tool to analyze the degree of relationship between budget and actual achievement of production is Regression Equation Line. The Regression equation helps to determine the expected sales achievement with the given budget figure. For this purpose, actual production is assumed to be dependent which is denoted bye (Y). Similarly, budgeted production is assumed to be independent which is denoted by (X). So the Regression Line of actual production on budgeted production (i.e. Y on X) can be shown as below-

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

Where,

$\bar{Y}$ =Arithmetic Mean of Actual Production=1539.02 MT

$\bar{X}$ =Arithmetic Mean of Budgeted Production=1639.59 MT

σy =S.D. of Actual Production=127.60 MT

σx = S.D. of Budgeted Production=76.56 MT

r_{xy} =Correlation Co-efficient between Budgeted & Actual Production =0.9695

Putting the above values into the Regression Equation, we get the following regression equation line,

$$Y-1539.02 = 0.9695 \times (127.60/76.56) \times (X-1639.59)$$
$$Y-1539.02 = 1.6158X-2649.30)$$
$$Y = 1.6158X-1110.28$$

Therefore, the regression line is (Y = 1.6158X-1110.28) which shows that there is positive relationship between budgeted and actual production. But at the same time, the equation indicates that the actual production is not greater than budgeted figures. The actual production will be increased by 1.6158 when the value of independent variable (X) changed by one unit. The regression equation can be used to forecast the expected production achievement for the coming fiscal year 2066/67. If the budgeted production for F/Y 2066/67 is 1800.00 units in MT, expected value of actual production achievement will be as follows-

$$\begin{aligned} Y &= 1.6158X-1110.28 \\ &= 1.6158\ (1800)-1110.28 \\ &= 2908.44-1110.08 \\ &= 1798.16 \text{ MT} \end{aligned}$$

If the relationship between budgeted and actual production remains the same as in the previous year, then the actual production for the F/Y 2066/67 should be 1798.16 units in MT as stated by the above regression equation.

Another important statistical tool is Least Square Method. It is also known as Time Series Analysis. This method can also be applied to analyze the trend of actual production and estimate the possible future production for a given period of time. The straight line trend will show the relationship between time and actual production of the relevant year. To fit this straight line trend, the time factor should be considered as an independent variable (X) and actual production is considered as a dependent variable (Y) of this time. The straight-line of actual production (Y) can be expressed as follow-

$$Yc = a + bx$$

Where,

Y =Actual Production Figure

X =Time Factor

a =Fixed Value

b =Variable Value

Now, calculating the straight line trend by using Least Square Method, we get the following value,

Table-4.9

TIME SERIES ANALYSIS

Fitting Straight-Line Trend (By Least Square Method)

FY 2061/62 to 2065/66

Fiscal Year	Actual Production in MT (Y)	Mid Time (X)	X^2	XY
2061/62	1720.80	-2	4	-3441.60
2062/63	1643.27	-1	1	-1643.27
2063/64	1430.82	0	0	0
2064/65	1379.48	1	1	1379.48
2065/66	1520.71	2	4	3041.42
	$\sum Y$=7695.08	**$\sum X$=0**	**$\sum X^2$=10**	**$\sum XY$=-663.97**

Source: Annual Report of Nebico Pvt. Ltd.

Here, F/Y 2063/64 is assumed as base year, the value X is 'zero' in this year. The value of (X) is negative before F/Y 2063/64 and positive after F/Y 2063/64. Therefore, by filling the straight-line trend, we get,

$$Yc = a + bx$$

Where,

$a=\sum Y/N = 7695.08/5 = 1539.02$

$b=\sum XY/\sum X2 = -663.97/10 = -66.40$

$\therefore Y = 1539.02 - 66.40X$

The trend line (Y=1539.02–66.40X) indicates the decreasing production figures. The production will be decreased by 66.40 MT every year if the past years production trend continues for future. With the help of the above trend equation, the value of actual production can be estimated for the F/Y 2066/67. The value of (X) for F/Y 2066/67 according to the base year 2063/64 is 3. Therefore actual production for fiscal year 2066/67 is,

$$\begin{aligned} Y &= 1539.02 - 66.40X \\ &= 1539.02 - 66.40 \times 3 \\ &= 1539.02 - 199.20 \\ &= 1339.82 \text{ MT} \end{aligned}$$

If the past trend is not changed, the possible actual production for F/Y 2066/67 will be 1339.82 units in MT which is in decreasing trend line.

4.3.2 Production Budget (Confectioneries)

The following table represents the production budget and actual production achievement of Confectioneries in metric ton (MT) from fiscal year 2061/62 to 2065/66.

Table-4.10

PRODUCTION BUDGET & ACTUAL ACHIEVEMENT

(CONFECTIONERIES)

F/Y 2061/62 to 2065/66

Fiscal Year	Quantity ('000')		
	Budgeted	Actual	Achievement %
2061/62	12.50	11.32	90.56
2062/63	4.00	3.53	88.25
2063/64	3.25	3.17	97.54
2064/65	9.50	9.54	100.42
2065/66	2.00	1.80	90.00
Average	**6.25**	**5.87**	

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.10 signifies the budgeted production and actual achievement of Confectioneries product of Nebico. The table shows that the lowest achievement is in F/Y 2062/63 which 88.25% of budgeted production and the greatest achievement is in F/Y 2064/65 which is 100.42%.

Statistical Tools to Analyze the Relationship between Budgeted and Actual Production of Biscuits

In order to find out the nature of variability of budgeted and actual production of different years, it is necessary to calculate the value of Arithmetic Mean, Standard Deviation and Co-efficient of Variance (C.V.) of the budgeted and actual production figures of Confectioneries product. The details of results of these statistical tools are presented in Appendix-4. The summarized results from the appendix can be shown as below-

Table-4.11

BUDGETED & ACTUAL PRODUCTION RELATIONSHIP (CONFECTIONERIES)

Statistical Tools	Budgeted Production	Actual Production
Arithmetic Mean	6.25 MT	5.87 MT
Standard Deviation	4.04 MT	3.81 MT
Co-efficient of Variance	64.70%	64.85%

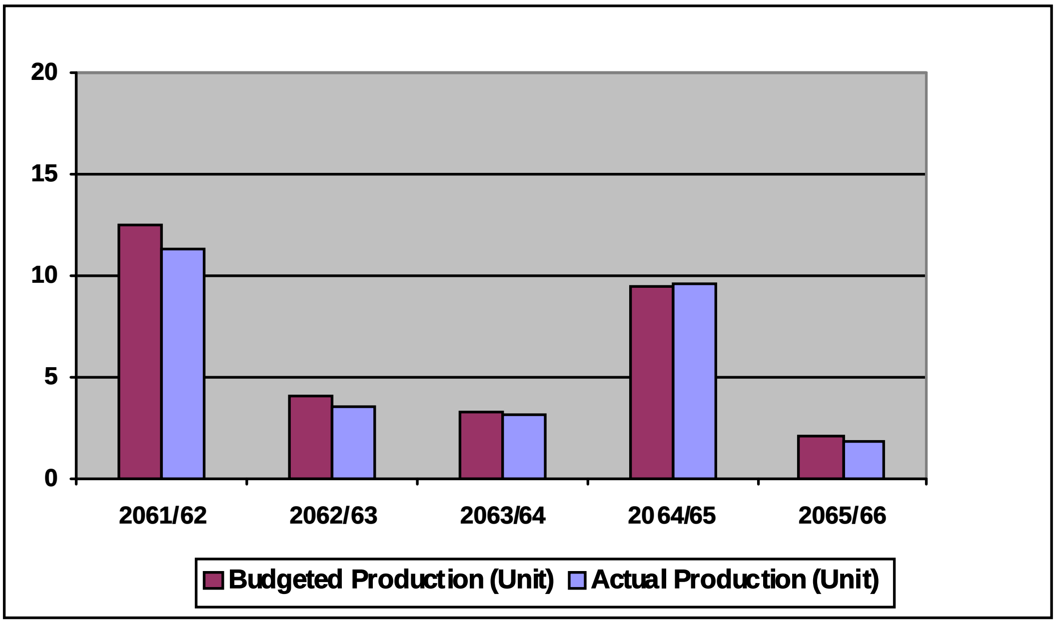
Source: Appendix-4

The table no. 4.11 shows the result of statistical calculation which indicates that the actual production achievement is strongly near but less than the budgeted production. The actual production is more variable than that of budgeted production because the co-efficient of variance (C.V.) of actual production is higher than budgeted production. The calculated mean of budgeted production is 6.25 units in MT where as actual production of confectioneries is 5.87 MT. Similarly, the deviated value of actual production is 3.81 which are lower than budgeted production of 4.04 units in MT. The target and actual production of five fiscal years can be presented in the following graphical form-

Figure-4.4

BUDGETED & ACTUAL PRODUCTION UNITS (CONFECTIONERIES)

FY 2061/62 to 2065/66



The graphical presentation of figure no. 4.4 shows that the actual production doesn't meet the budgeted production. However, every production figure is almost near to the target production. Both budgeted and actual production figures are in upward trend.

Another statistical tool to analyze the relationship between actual production and budgeted production is Correlation Co-efficient. It can be found with the help of 'Karl Pearson's Co-efficient of Correlation measures the degree of association between budgeted and actual production figures. If actual production is as like as budgeted production, it is proved that there is positive correlation between budgeted and actual production but if it is not as like as budgeted, it is negatively correlated. To find out the value of (r) the budgeted production is assumed as independent variable (X) and actual production is assumed as dependent variable (Y). The calculated value of correlation coefficient (r_{xy}) is 0.9956 (see appendix-4) which proves that there is positive and close correlation between budgeted and actual production. On the other hand, for the significance of correlation between budgeted and actual achievement of production, (r) should be tested by the help of "Probable Error of r". The calculated value of Probable Error of r is 0.003 (see appendix-4) which really indicates that the correlation co-efficient (r) is significant because 'r' is greater than 'Probable Error of 'r' (i.e. 0.9956>0.003). This means that the actual production will go to the same direction of budget.

Another statistical tool to analyze the degree of relationship between budget and actual achievement of production is Regression Equation Line. The Regression equation helps to determine the expected sales achievement with the given budget figure. For this purpose, actual production is assumed to be dependent which is denoted by (Y). Similarly, budgeted production is assumed to be independent which is denoted by (X). So the regression line of actual production on budgeted production (i.e. Y on X) can be shown as below-

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

Where,

$\bar{Y}$ =Arithmetic Mean of Actual Production=5.87 MT

$\bar{X}$ =Arithmetic Mean of Budgeted Production=6.25 MT

σy =S.D. of Actual Production=3.81 MT

σx = S.D. of Budgeted Production=4.04 MT

r_{xy} =Correlation Co-efficient between Budgeted & Actual Produciton =0.9956

Putting the above values into the Regression Equation, we get the following regression equation line,

$$\begin{aligned} Y-5.87 &= 0.9956 \text{ x } (3.81/4.04) \text{ x } (X-6.25) \\ Y-5.87 &= 0.9389X-5.8688 \\ Y &= 0.9389X-0.0012 \end{aligned}$$

Therefore, the regression line is (Y = 0.9389X-0.0012) which shows that there is positive relationship between budgeted and actual production. But at the same time, the equation indicates that the actual production is not greater than budgeted figures. The actual production will increased by 0.9389 when the value of independent variable (X) changed by one unit. The regression equation can be used to forecast the expected production achievement for the coming fiscal year 2066/67. If the budgeted production for F/Y 2066/67 is 15.00 units in MT, expected value of actual production achievement will be as follows-

$$\begin{aligned} Y &= 0.9389X - 0.0012 \\ &= 0.9389 \times (15) - 0.0012 \\ &= 14.08 - 0.0012 \\ &= 14.08 \text{ MT} \end{aligned}$$

If the relationship between budgeted and actual production remains the same as in the previous year, then the actual production for the F/Y 2066/67 should be 14.08 units in MT as stated by the above regression equation.

Another important statistical tool is Least Square Method. It is also known as Time Series Analysis. This method can also be applied to analyze the trend of actual production and estimate the possible future production for a given period of time. The straight line trend will show the relationship between Time and actual production of the relevant year. To fit this straight line trend, the time factor should be considered as an independent variable (X) and actual production is considered as a dependent variable (Y) of this time. The straight-line of actual production (Y) can be expressed as follow-

$$Yc = a + bx$$

Where,

Y =Actual Production Figure

X =Time Factor

a =Fixed Value

b =Variable Value

Now, calculating the straight line trend by using least square method, we get the following value,

Table-4.12

TIME SERIES ANALYSIS

Fitting Straight-Line Trend (By Least Square Method)

FY 2061/62 to 2065/66

Fiscal Year	Actual Production in MT (Y)	Mid Time (X)	X^2	XY
2061/62	11.32	-2	4	-22.64
2062/63	3.53	-1	1	-3.53
2063/64	3.17	0	0	0
2064/65	9.54	1	1	9.54
2065/66	1.80	2	4	3.60
	∑Y=29.36	**∑X=0**	**$\sum X^2$=10**	**∑XY=-13.03**

Source: Annual Report of Nebico Pvt. Ltd.

Here, F/Y 2063/64 is assumed as base year, the value X is 'zero' in this year. The value of (X) is negative before F/Y 2063/64 and positive after F/Y 2063/64. Therefore, by filling the straight-line trend, we get,

$$Yc = a + bx$$

Where,

a=∑Y/N = 29.36/5 = 5.87

b=∑XY/∑X2 = -13.03/10 = -1.303

∴ Yc = 5.87–1.303X

The trend line (Y=5.87–1.303X) indicates the decreasing production figures. The production will be decreased by 1.303 MT every year if the past years production trend continues for future. With the help of the above trend equation, the value of actual production can be estimated for the F/Y 2066/67.

The value of (X) for F/Y 2066/67 according to the base year 2063/64 is 3. Therefore actual production for fiscal year 2066/67 is,

$$Y = 5.87 – 1.303X$$
$$= 5.87 - 1.303x3$$
$$= 5.87 - 3.909$$
$$= 1.96 \text{ MT}$$

If the past trend is not changed, the possible actual production for F/Y 2066/67 will be 1.96 units in MT which is in decreasing trend line.

4.4 Actual Production and Actual Sales of Biscuits and Confectioneries

The Production budget is prepared with the help of sales budget or the production budget is dependent upon the sales budget. So it makes necessary to examine whether production meets sales or not and it is very important to analyze the relationship between actual production and actual sales. The following table shows the actual production and actual sales of biscuits and confectioneries of Nebico of last five fiscal years from 2061/62 to 2065/66-

Table-4.13

ACTUAL PRODUCTION & ACTUAL SALES OF (BISCUITS)

FY 2061/62 to 2065/66

Fiscal Year	Units in 'MT'	
	Actual Sales	Actual Production
2061/62	1700.69	1720.80
2062/63	1644.16	1643.27
2063/64	1432.26	1430.82
2064/65	1380.92	1379.48
2065/66	1518.65	1520.71

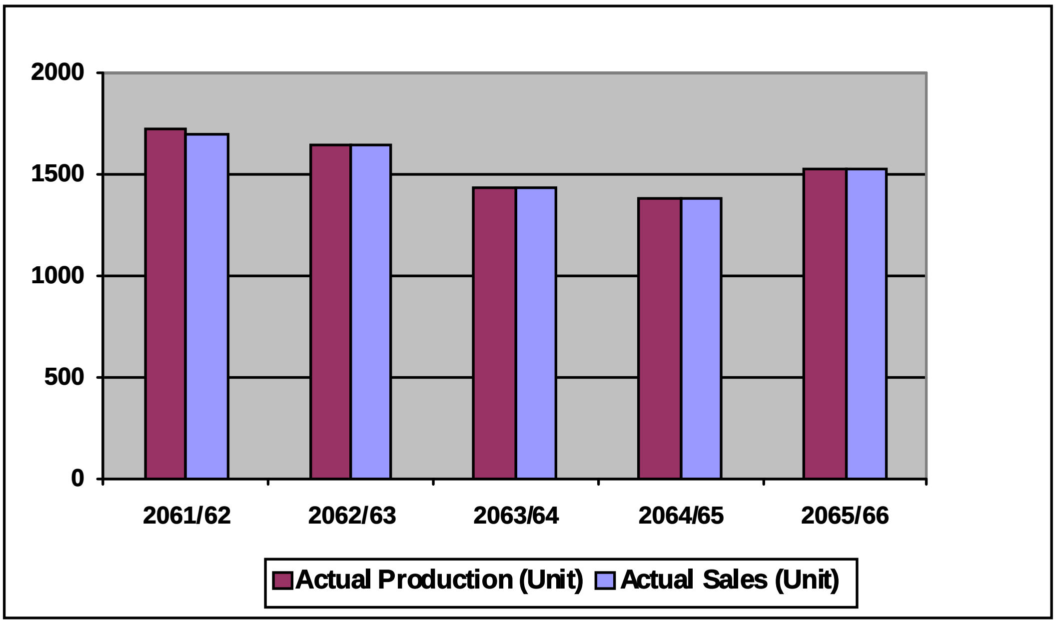
Source: Annual Report of Nebico Pvt. Ltd.

The above data can be presented on the following bar diagram-

Figure-4.5

ACTUAL PRODUCTION & ACTUAL SALES OF (BISCUITS)

FY 2061/62 to 2065/66



The above diagram shows the relationship between production and sales of biscuits for five fiscal years. Normally production is always equal to sales but the above figure shows that there is difference between actual production and actual sales only because of the inventory level of the company. In F/Y 2061/62 the actual production is 1720.80 MT which is greater than actual sales but for other fiscal year the actual production is less than the actual sales. On the other hand actual sales and actual production is decreasing very year. The following table shows the actual production and actual sales of confectionery product of the company-

Table-4.14

ACTUAL PRODUCTION & ACTUAL SALES OF (CONFECTIONERIES)

FY 2061/62 to 2065/66

Fiscal Year	Units in 'MT'	
	Actual Sales	**Actual Production**
2061/62	11.28	11.32
2062/63	3.69	3.53
2063/64	3.19	3.17
2064/65	9.42	9.54
2065/66	1.94	1.80

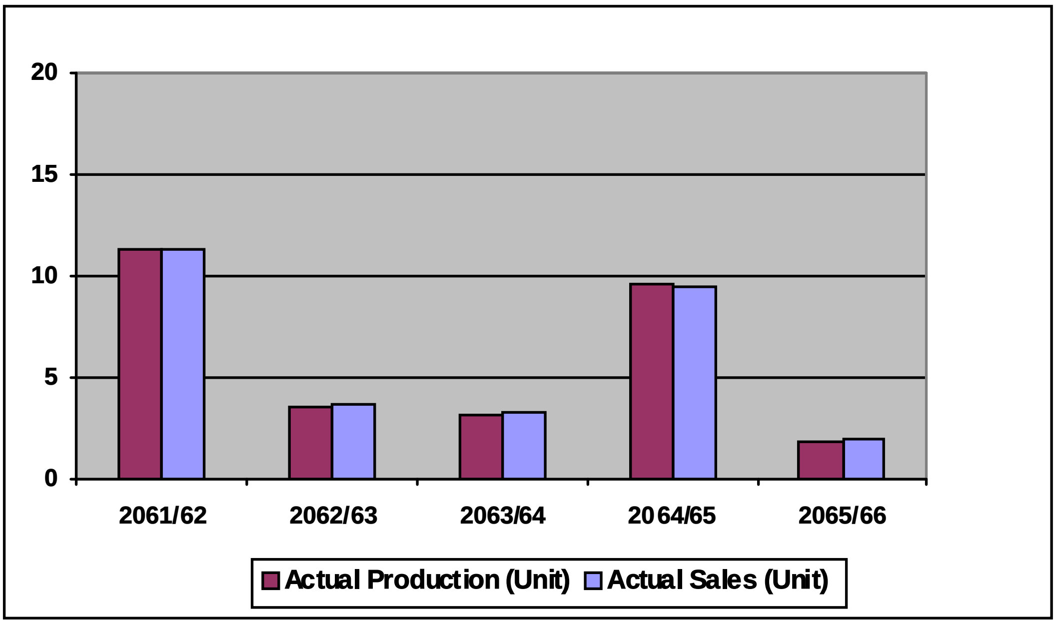
Source: Annual Report of Nebico Pvt. Ltd.

The above data can be presented on the following diagram-

Figure-4.6

ACTUAL PRODUCTION & ACTUAL SALES OF (CONFECTIONERIES)

FY 2061/62 to 2065/66



The above bar diagram shows the relationship between actual production and actual sales of confectioneries product of the company Nebico.

4.5 Finished Goods Inventory Budget

An effective inventory policy makes the organization better. So the management should be focused on proper and effective inventory policy making. Finished goods inventory actually plays an important role in profit planning or managerial budgeting. If sales are exceeded than production, the inventory is used for sales and the level of inventory is going to be decreased. When production exceeds than the sales, the remaining production are the inventories in business. Therefore inventory policy should always be better. Generally inventory of finished goods is determined by nature of product, reasonability, production process, portability, perish ability and many other factors. Nebico has been adapted unstable inventory policy for both biscuits and confectioneries product. Therefore there is deviation between planned production and planned sales and actual production and actual sales. But there is no deviation between planned sales and planned production for confectioneries. The following table shows the planned inventory position of Biscuits product of Nebico-

Table-4.15

PLANNED FINISHED GOODS INVENTORY (BISCUITS)

FY 2061/62 to 2065/66

Fiscal Year	**BISCUITS** (Units in 'MT')	
	Opening Stock	**Closing Stock**
2061/62	12.96	44.38
2062/63	44.38	43.18
2063/64	43.18	41.25
2064/65	41.25	39.25
2065/66	39.25	42.09

Source: Annual Report of Nebico Pvt. Ltd.

Again the following table shows the actual inventory position of Biscuits and Confectioneries product of Nebico-

Table-4.16

ACTUAL FINISHED GOODS INVENTORY (CONFECTIONERIES)

FY 2061/62 to 2065/66

Fiscal Year	BISCUITS (Units in MT)		CONFECTIONERIES (MT)	
	Opening Stock	Closing Stock	Opening Stock	Closing Stock
2061/62	12.96	33.07	0.20	0.24
2062/63	33.07	32.18	0.24	0.08
2063/64	32.18	30.74	0.08	0.06
2064/65	30.74	29.30	0.06	0.18
2065/66	29.30	31.36	0.18	0.04

Source: Annual Report of Nebico Pvt. Ltd.

4.6 Capacity Utilization

Nebico Private Limited is man based i.e. labor based nepalese manufacturing industry. The term 'CAPACITY' actually indicates the proper availability of raw materials because Nepal has very high percentage of manpower unemployment, i.e. labor forces are not constraints for the industry only the main constraint factor for Nebico is proper availability of raw materials and electricity supply.

Nebico is trying to utilize its capacity in optimum level but yet it hasn't succeeded to run. The table no. 4.17 actually shows the average capacity utilization of Nebico from Fiscal Year 2061/62 to 2065/66-

Table-4.17

CAPACITY UTILIZATION TREND

FY 2061/62 to 2065/66

Fiscal Year	Capacity Utilization (%)
2061/62	91.80
2062/63	87.56
2063/64	85.24
2064/65	81.90
2065/66	80.45

Source: Annual Report of Nebico Pvt. Ltd.

The above table shows that Nebico does not utilize its full capacity. The capacity utilization trend is in decreasing order. But the company is planning to utilize its capacity to the optimum level.

4.7 Manpower Planning of Nebico

Human-being is the prominent aspect of an organization. No, company can operate smoothly without manpower. Effective planning and systematic control of manpower cost is essential to achieve the organization goals. Manpower planning refer the area of recruitment, personal needs, training, job description and evaluation, union negation, salary & wages, and performance appraisal. So manpower is the blood of any business organization. Manpower planning is an important part in managerial budgeting. Since Nebico is the labor based manufacturing industry, manpower planning must be adequate for the company. In adequate manpower bring unnecessary cost and inefficient performance in the organization. Nebico has 187 personnel out of which 119 personnel are from technical side and 68 personnel are from non-technical side. And 153 personnel are male and 34 personnel are female. Nebico has almost fixed salaried staffs on the monthly basis. The summarized statement of overall manpower working in Nebico can be presented as follows-

Particulars	**No. of Persons**
Technical Personnel	119
Non-Technical Personnel	68
Total	187
Male (153) & Female (34)	

4.8 Marketing System

Marketing plan frequently refers to the sales budget, quantities sales in volume and rupees for each major sub-division of sales. Marketing plays a vital role in any business organization either profit oriented or not. Production is impossible in the long run without adequate marketing policies. 'Market' is the dominant factor for manufacturing and trading organizations. Nebico sells its all products i.e. biscuits and confectioneries in the overall market of the country. Nebico has become the market leader of biscuits. It has its own goodwill because of pioneer manufacturing industry. It has not straight channel of distribution, but producer to dealers/distributors to ultimate consumers. The products of Nebico are marketed though out the country and the marketing territories are divided into seven territories of the country, such as-

1. Central
2. Western
3. Mid-Western
4. Far-Western
5. Eastern
6. Kathmandu
7. Sub-Kathmandu

4.9 Overhead Cost Budgets of Nebico

Overhead cost is also known as indirect cost. Overhead Cost Budget is prepared after preparing sales and production budget. Generally overhead costs are classified into two parts which are factory or manufacturing overhead cost and non-manufacturing overhead cost. But Nebico prepared overhead cost budget in different names which are manufacturing expenses, administrative expenses and selling and distribution expenses and depreciation. The main objective of this budget is to control over the cost. The historical trend of Nebico's manufacturing expenses, administrative expenses, selling & distribution expenses and interest on long-term loan is presented in the following table-

Table-4.18

ACTUAL OVERHEADS OF NEBICO

FY 2061/62 to 2065/66

Fiscal Year	Manufacturing Overheads	Administrative Overheads	Selling & Distribution Overheads	Depreciation	Total Overheads
2061/62	91,114,103.94	14,475,651.60	11,481,139.81	2,938,810.46	120,009,705.81
2062/63	99,649,248.99	14,286,658.10	11,313,459.91	2,712,735.27	127,962,102.27
2063/64	90,848,905.84	13,895,988.72	15,034,697.69	4,327,867.03	124,107,459.28
2064/65	85,376,801.75	13,671,311.27	11,412,391.93	3,147,664.06	113,608,169.01
2065/66	106,281,052.52	12,848,819.67	10,445,682.79	2,812,716.00	132,388,270.98

Source: Annual Report of Nebico Pvt. Ltd.

The above table shows the actual expenses of Nebico Private Limited of last five fiscal years. And the below table represents the detailed expenses incurred in the F/Y 2065/66-

Table-4.19

ACTUAL MANUFACTURING OVERHEADS

(FY 2065/66)

S.No.	Particulars	Amount (Rs.)
1.	Raw Materials	59,510,521.26
2.	Wrapping & Packaging Materials	26,238,650.49
3.	Production Salary & Wages	10,382,311.24
4.	Provident Fund	640,464.00
5.	Gratuity	325,000.00
6.	Tiffin Expenses	1,950,600.00
7.	Fuel	106,407.71
8.	Electricity Power	7,088,280.59
9.	Land Rent	43,373.10
10.	Water Supply	60,000.00
11.	Repair & Maintenance	876,500.76
12.	Laboratories (Lab Chemicals)	524,005.91
13.	Miscellaneous Expenses	98,576.45
	Total	**107,844,691.51**

Source: Annual Report of Nebico Pvt. Ltd.

Opening Stock	1,046,004.88
Add: Cost of Production	107,844,691.51
Less: Closing Stock	2,609,643.87
Cost of Goods Sales	**106,281,052.52**

Table-4.20

ACTUAL ADMINISTRATIVE OVERHEADS

(FY 2065/66)

S.No.	Particulars	Amount (Rs.)
1.	Salary & Wages	3,984,049.49
2.	Tiffin Expenses	345,210.55
3.	Provident Fund	241,800.00
4.	Gratuity	100,876.00
5.	Repair & Maintenance	562,341.65
6.	Printing & Stationeries	76,450.00
7.	Postage/Telex/Telephone	345,112.00
8.	Books & Periodicals	16,345.88
9.	Advertisements	112,231.90
10.	Insurance Premium	792,114.45
11.	Entertainment	112,321.00
12.	Pooja Expenses	155,234.50
13.	Fuel	672,500.00
14.	Training Expenses	15,466.00
15.	Uniform Expenses	35,467.90
16.	License Fee	65,432.00
17.	Legal & Consultancy Fee	10,980.00
18.	Audit Fee	50,000.00
19.	Technical Fee	820,432.75
20.	Membership Fee	45,230.00
21.	Board Meeting Expenses	66,790.00
22.	Traveling Expenses	176,354.73
23.	Electricity & Water	50,895.12
24.	Security Service Charge	765,432.00

25.	Donations	55,650.00
26.	Miscellaneous Expenses	34,246.32
27.	Employee Bonus Provision	-
28.	Employee Quarter Provision	-
29.	Bank Loan Interest	3,139,855.43
	Total	**12,848,819.67**

Source: Annual Report of Nebico Pvt. Ltd.

Table-4.21

ACTUAL SELLING & DISTRIBUTION OVERHEADS

(FY 2065/66)

S.No.	Particulars	Amount (Rs.)
1.	Salary & Wages	2,794,372.23
2.	Tiffin Expenses	73,245.98
3.	Provident Fund	140,400.00
4.	Gratuity	55,450.00
5.	Transportation & Distribution	4,451,941.05
6.	Dealer Commission	1,677,892.75
7.	Advertisement Expenses	132,456.44
8.	House Rent	76,899.38
9.	Sales Promotion Expenses	876,435.42
10.	Charity & Donation	30,000.00
11.	Telephone Expenses	12,345.67
12.	Training Expenses	6,577.00
13.	Entertainment Expenses	112,354.87
14.	Miscellaneous Expenses	5,312.00
	Total	**10,445,682.79**

Source: Annual Report of Nebico Pvt. Ltd.

4.10 Capital Expenditure Budget

Capital expenditure budget is often called capital budgeting. It is the process of planning and controlling strategic and tactical expenditure for the expansion and contraction on investment in operating assets. Capital expenditure involves generally a huge amount to be invested. This is intended to acquire some operational assets such as fixed assets i.e. plants, machineries, equipments, buildings, furniture & fixtures, and other fixed assets in order to earn future revenues or to reduce future cost. In capital expenditure projects funds are tied up for relatively long period of time. Capital expenditure plan enables management to plan the amount resources that should be invested in capital additions. Nebico does not involve in long-term capital expenditure budget but it prepares only short-term capital expenditure budget. That is to say, there is no systematic budgeting procedure in the context of capital addition. Only managing director can decide what is to be purchased according to the necessity of the industry and within the limitation of the allocated amount. The following table shows the actual capital expenditure position for fiscal year 2065/66-

Table-4.22

ACTUAL CAPITAL EXPENDITURE

(FY 2065/66)

S.No.	Items	Amount (Rs.)
1.	Land	547,990.00
2.	Building	2,069,846.48
3.	Plant & Machineries	9,024,084.90
4.	Electrification	390,328.42
5.	Laboratories	99,007.56
6.	Furniture & Fixtures	60,467.17
7.	Office Equipment	238,162.11
8.	Factory Equipment	1,199,848.05

9.	Telephones	61,820.44
10.	Computers	352,392.90
11.	Vehicles	1,001,976.96
12.	Water Supply Equipment	20,801.89
13.	Others	62,338.27
	Total	**15,129,065.17**

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.21 shows that the actual capital expenditure (actual fixed assets position) of Nebico for the fiscal year 2065/66

4.11 Profit and Loss Account

The profit and loss account of the company can be defined as a final account which summarizes the incomes and gains earned and expenses incurred during the financial year. Therefore, profit and loss account is prepared to ascertain the operating results of a company in term of net profit or loss. The profit and loss account determines net income or loss by matching incomes and expenses incurred during a particular financial year. Nebico also prepared profit and loss account at the end of every fiscal year. It shows the final conclusion of the entire operation of an organization at the end of fiscal year. The following table shows the profit and loss account of Nebico Pvt. Ltd. from fiscal year 2061/62 to 2065/66-

Table-4.23

PROFIT & LOSS TREND OF NEBICO

FY 2061/62 to 2065/66

Fiscal Years	Net Profit After Tax
2061/62	317,953.39
2062/63	1,582,008.68
2063/64	(11,904,184.28)
2064/65	(11,784,069.01)
2065/66	(20,596,055.97)

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.23 shows that the profit and loss trend is not in good condition. During the study periods, initially the company has a little profit but after F/Y 2063/64 the company is bearing a huge amount of loss which actually indicates the unfavorable economic condition of Nebico. The detail comprehensive profit and loss account from F/Y 2061/62 to 2065/66 has been shown in appendix-8. But the detail comprehensive profit & loss account for fiscal year 2065/66 can be presented in the following table-

Table-4.24

PROFIT & LOSS ACCOUNT OF NEBICO

For Fiscal Year 2065/66

Particulars	Amount (Rs.)
Sales	111,747,000.00
Less: Cost of Sales	106,281,052.52
Gross Profit	**5,465,947.48**
Miscellaneous Income	45,215.00
Administrative Expenses	9,708,964.24
Selling & Distribution Expenses	10,445,682.79
Bank Loan Interest	3,139,855.43
Depreciation	2,812,716.00
Net Profit before Tax	**(20,596,055.97)**
Less: Tax	-
Net Profit after Tax for the Year	**(20,596,055.97)**
Last Year Accumulated Profit/Loss	(21,760,807.19)
	(42,356,863.16)
Adjustment of Last Year Tax	-
	(42,356,863.16)
Dividend	-
Profit/Loss Transferred to Balance Sheet	**(42,356,863.16)**

Source: Annual Report of Nebico Pvt. Ltd.

4.12 Cash Budget

The planning of cash inflow i.e. cash receipt and cash outflow i.e. cash disbursement over a projected time period is called cash budget. It is the most and prominent tool of entire cash management. Cash budget statement shows the planned cash inflows, outflows and ending cash position for a specific time period. Basically, cash budget includes two part i.e. planned cash inflow and planned cash outflow. Planning of cash inflow and cash outflow gives the planned ending cash position for the budgeted period and which will indicate the need for the financial probable cash deficit or the need for the investment planning to put excess cash to the profitable use. Nebico does not prepare detailed and systematic cash budget but it prepares short-term cash budget. We have only the following actual cash inflows and outflows statement for the fiscal year 2065/66-

Table-4.25

ACTUAL CASH FLOW STATEMENT OF NEBICO

For Fiscal Year 2065/66

Particulars	Amount (Rs.)
Cash Flow from Operating Activities	
Cash Collections:	
Opening Cash Balance	1,894,805.18
Add: Cash Sales and Collection from Debtors	111,747,000.00
Add: Bad Debt Recovered	0.00
Add: Miscellaneous Cash Income	45,215.00
Total Cash Inflows	**113,687,020.18**
Cash Payments:	
Cost of Goods Sold	106,281,052.52
Administrative Expenses	9,708,964.24
Selling & Distribution Expenses	10,445,682.79
Bank Loan Interest	3,139,855.43

Increase/(Decrease) in Current Assets	(6,649,205.95)
Decrease/(Increase) in Current Liabilities	(7,589,418.72)
Total Cash Outflows	**115,336,930.30**
Net Cash from Operating Activities (A)	**(1,649,910.12)**
Cash Flow from Investing Activities	
Sales/(Purchase) of Fixed Assets	(828,407.43)
Long-Term Investment	0.00
Interest Received	0.00
Net Cash from Investing Activities (B)	**(828,407.43)**
Cash Flow from Financing Activities	
Long-Term Loan Payment	0.00
Received Long-Term Loan	2,984,543.55
Cash Dividend Payment	0.00
Net Cash from Investing Activities (C)	**2,984,543.55**
Closing Cash Balance (A-B-C)	**506,226.00**

Source: Annual Report of Nebico Pvt. Ltd.

The above table indicates that the opening cash balance for the FY 2065/66 is Rs. 1,894,805.18 and the closing cash balance or surplus of cash for the FY 2065/66 is Rs. 506,226.00 which will obviously be the opening cash balance for the next fiscal year 2066/67.

4.13 Balance Sheet

Balance sheet is a statement of assets and liabilities of an organization. It shows the overall financial condition of the organization. Balance Sheet indicates the financial strength and weakness of the company. It is preapared at the end of accounting period. Nebico Private Limited prepared its balance sheet at the end of every fiscal year. The detailed and comprehensive actual balance sheet from

F/Y 2061/62 to 2065/66 has been presented in appendix-9. The actual balance sheet of Nebico for the F/Y 2065/66 can be presented as follows-

Table-4.26

ACTUAL BALANCE SHEET OF NEBICO

As at 31st Ashadh 2066

Particulars	Amount (Rs.)
Liabilities	
Share Capital	6,035,000.00
Reserve & Accumulated Profit/(Loss)	(42,356,863.16)
Long-Term Loan	33,250,767.00
Sundry Creditors & Other Payable	37,569,729.00
Provision	10,681,171.00
Total Liabilities	**45,179,803.84**
Assets	
Fixed Assets	15,129,065.18
Investment	3,139,370.00
Closing Stock	10,371,682.00
Sundry Debtors	10,092,452.94
Prepaid Advances & Deposites	5,628,574.00
Deferred Expenses	312,433.72
Cash/Bank Balance	506,226.00
Total Assets	**45,179,803.84**

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.26 shows the actual balance sheet of Nebico for fiscal year 2065/66. The Share Capital was Rs.6.035 million. The company is suffering the loss of Rs.45.18 million which is actually very huge amount of loss for the company. The amount of loss has effected to the net worth of the company very poorly. There is no change in the company's investment. The liability of long-term loan and sundry creditors was again increased. The overall scenario of the company's financial condition is not in good condition.

4.14 Financial Analysis (Ratio Analysis)

Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the item of the balance sheet and the profit and loss account. It is very important for measuring the firm's liquidity, profitability, solvency position and assesses the firm's operating efficiency. There are many techniques used in analyzing the financial statement one of them is the ratio analysis which very powerful tools of the financial analysis. An arithmetic relationship between two figures is known as ratio. It is computed by dividing one item of relationship with the other. Ratio simply means one number expressed in terms of another. Financial ratio means the relation between balance sheet and income statement. It actual shows the actual situation of the organization. The financial ratio my be classified as follows-

A. Liquidity Ratio
B. Leverage Ratio
C. Activity Ratio
D. Profitability Ratio

The detailed calculations of all the ratios are presented in appendix-10. But we have presented the different ratios in the following table-

Table-4.27

FINANCIAL ANALYSIS

FY 2061/62 to 2065/66

Particulars/Fiscal Year	2061/62	2062/63	2063/64	2064/65	2065/66
A. Liquidity Ratio					
1. Current Ratio	1.40:1	1.65:1	1.17:1	0.86:1	0.56:1
2. Quick Ratio	0.47:1	0.57:1	0.39:1	0.35:1	0.23:1
B. Leverage Ratio					
3. Total Debt Ratio	1.86:1	1.64:1	2.41:1	4.88:1	26.54:(-1)
C. Activity Ratio					
4. Capital Employed Turnover Ratio	4.32	3.77	3.93	7.00	-36.39
5. Total Assets Turnover Ratio	2.05	2.02	1.72	1.84	2.47
6. Inventory Turnover Ratio	5.40	4.94	5.01	7.01	10.77
D. Profitability Ratio					
7. Gross Profit Ratio	24.70%	23.70%	18.99%	16.11%	4.89%
8. Net Profit Ratio	0.26%	1.21%	-10.61%	-11.58%	-18.43%
9. Return on Total Assets Ratio	0.54%	2.45%	-18.30%	-21.35%	-45.59%
10. Cost of Goods Sold	75.30%	76.30%	81.01%	83.89%	95.11%

Sources: Appendix-10

1. Current Ratio:-

Current ratio shows the relationship of current assets and current liabilities. Higher the current ratio better is the liquidity position. If the current ratio is less than 2:1, sufficient cash may not be available to pay current liabilities. Nebico has low current ratio i.e. less than the standard ratio which actually indicates that the company has not sufficient cash to pay the current liabilities easily.

2. Quick Ratio:-

Quick ratio is considered to be better if it is 1:1. On the other hand, higher quick ratio than standard shows the unnecessary stock of quick assets. Nebico has very low quick ratio in the overall five fiscal years. It shows worse condition of the company.

3. Total Debt Ratio

A ratio between total debts to capital employed is known as total debt ratio. Long-term debtors as well as short-term debtors emphasize lower debt ratio. The total debt ratio for all five fiscal year is higher than that of standard level. The company's total debt liabilities are more than its net worth which indicates that the company's financial condition is very poor.

4. Capital Employed Turnover Ratio:-

A ratio between sales and capital employed is known as capital employed turnover ratio. The ratio proves that the higher the capital employed turnover ratio the more efficient term of creditor's fund. In other words, a higher ratio is preferable which shows that the firm is very efficient on its sales activity. In F/Y 2061/62 the ratio is 4.32 times and for the F/Y 2065/66 the ratio is negative i.e. -36.39 times which indicates that the company's performance is not good.

5 Total Assets Turnover Ratio:-

A ratio established between sales and total assets is called Total assets turnover ratio which indicates how the company's total assets are being used to generate its maximum sales revenue through their proper utilization. The company's total assets turnover ratio range between 1.72 times to 2.47 times for the five fiscal years.

6. Inventory Turnover Ratio:-

A high inventory turnover ratio is the indicator of good inventory management. Nebico has increasing inventory turnover ratio i.e. 4.94 to 10.77 from F/Y 2061/62 to 2065/66 which indicates the satisfactory inventory management of the company.

7. Gross Profit Ratio:-

The gross profit of Nebico in the initial period is good i.e. 24.70% but in F/Y 2065/66 the gross profit margin is very low i.e. 4.89 which actually indicates the company is in very poor condition.

8. Net Profit Ratio:-

Net profit margin shows the relationship between net profit and sales. The company's net profit is very low for initial two years but after F/Y 2063/64 to 2065/66 the company is bearing a huge amount of loss which shows that the company's overall activities are in the struggling period.

9. Cost of Goods Sold:-

Lower the cost of goods sold to sales is considered as better. Nebico has very high percentage of cost of goods sold i.e. up to 95.11% for F/Y 2065/66 which shows the worst position of cost management of the company.

10. Return on Total Assets Ratio:-

The relation between net profit and utilization of total assets of the company is known as return on total assets. The main objective of this ratio is to determine how efficiently the fund supplied by the total assets has been used by the management. The company's total assets ratios are negatively fluctuating every year which indicates that there is no productivity of assets.

And it is suggested to Nebico's management to manage its overall activity for creating and increasing the productivity of total assets for the company's long-term existence.

4.15 Budgeting with Cost-Volume-Profit Analysis

4.15.1 Identification of Cost Behavior

Classification of costs into variable and fixed is the most and prominent aspect of managerial budgeting. It helps to determine the volume of operation desired to maintain the industry's profitability. In other words, identification of the variability of cost is necessary in planning and controlling of cost. Thus the knowledge of cost behavior is very important. Generally, cost behaves in two ways with relation to volume of output. Some cost does not change with output but some cost changes proportionately with the change in output.

According to the behavior of the cost, there are two categories of cost i.e. 1.Fixed cost 2.Variable cost. Fixed cost remains constant in total for certain period of time and Variable cost changes in total directly with changes in output or volume of operation but remains constant in per unit basis. But those expenses that are neither fixed not variable because they possess some characteristics of both fixed and variable are known as semi-variable costs. Nebico has not maintained or prepared its cost estimation systematically. But we can present the rough cut segregation of costs into fixed and variable component in the following table-

Table-4.28

COST CLASSIFICATION OF NEBICO

Based on FY 2065/66

Expenses	Cost Behavior	Fixed Cost	Variable Cost
Raw Material Cost	Variable	-	85,749,171.75
Others Direct Production Cost	Variable	-	10,747,744.52
Production Salaries	Fixed	11,347,775.24	-
Administrative Expenses	Fixed	12,848,819.67	-
Selling & Distribution Expenses	Fixed	10,445,682.79	-
Total Expenses		**34,642,277.70**	**96,496,916.27**

Source: Annual Report of Nebico Pvt. Ltd.

The above table no. 4.28 shows the classification of expenses of Nebico. The costs are classified into fixed cost and variable cost. The fixed costs are less than variable costs. All production salaries & wages are fixed cost. The table also shows that there is no systematic vision of classifying cost adopted by the company. This classification of cost is actually made for the purpose of analyzing Cost-Volume-Profit of Nebico.

4.15.2 Cost-Volume-Profit Analysis

The analysis of relationship between cost, volume and profit is known as cost-volume-profit analysis. In other words, CVP analysis shows the relationship between the costs of producing the product, the product sold volume, total fixed, per unit variable cost and profit or loss gained by selling the product. It is the prominent management accounting tool and simply provide an overview of the profit planning process and help to evaluate the purpose and reasonable of such budget and forecast. CVP analysis shows which volume or level of activity is necessary to stay at break-even or gain a certain amount of profit. Break-Even-Point is a point of sales volume at which sales revenue is equal to total costs. The overall CVP analysis of Nebico can be presented as follows-

Table-4.29

INCOME STATEMENT OF NEBICO

Based on FY 2065/66

Particulars	Amount (Rs.)
Sales Revenue	
Less: Variable Cost	111,747,000.00
Raw Material Cost	85,749,171.75
Other Direct Cost	10,747,744.52
Total variable cost	96,496,916.27
Contribution Margin	**15,250,083.73**
Less: Fixed Cost	
Production Salaries	11,347,775.24
Administrative Expenses	12,848,819.67
Selling & Distribution Expenses	10,445,682.79
Total fixed cost	34,642,277.69
Net Profit After Tax	**(19,392,193.96)**

Source: Annual Report of Nebico Pvt. Ltd.

Computation of break-even-point can be presented as follows-

1.) Variable Cost Volume Ratio (V/V Ratio)

V/V Ratio = Total Variable Cost/Total Sales Revenue

= 96,496,916.27/111,747,000.00

= **0.8635**

The variable cost volume ratio shows the preparation of variable cost is Rs.0.8635 to each Re. of sales volume.

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

P/V Ratio = 1-(V/V Ratio)

= 1-0.8635)

= **0.1365**

This ratio shows that the contribution margin left for fixed cost and profit or loss per Re. of sales.

3.) Break-Even-Point (BEP)

Break even sales (Rs.) = Total Fixed/PV Ratio

= 34,642,277.69/0.1365

= **Rs.253, 845,859.08**

The result shows that Nebico will be in break even when the sales revenue is Rs.253, 845,859.08 but total sales revenue is less than break even sales which indicates that the company is bearing loss every fiscal year.

4.16 Flexible Budget

A flexible budget is a set of alternative budget for different expected level of activities. This budget shows the budgeted revenue, costs and profit for different level of business activities rather than being based on only one level of activity. Thus a flexible budget can be used to evaluate the efficiency of a department throughout the business even if the actual level of business activity differs from the management's original estimates. Nebico cannot prepare a flexible budget for the purpose of computing planned expenses amount in each responsibility centre. On the basis of the cost and other data of the F/Y 2065/66, a flexible budget of Nebico has been presented below. To prepare the flexible budget following assumption should be adopted-

1.) Sales revenue has been remaining unchanged and constant ratio as it is F/Y 2065/66.
2.) Variable cost per unit also will not be changed for the whole year i.e. variable cost ratio is 0.8635.
3.) The total fixed cost remains unchanged i.e. fixed cost is constant.

Table-4.30

FLEXIBLE BUDGET OF NEBICO

Based on FY 2065/66

Particulars	**Level of Activity**		
	80%	**100%**	**120%**
Sales Revenue	89,397,600.00	111,747,000.00	134,096,400.00
Less: Variable Cost	77,197,533.02	96,496,916.27	115,796,299.52
Contribution Margin	12,200,066.98	15,250,083.73	18,300,100.48
Less: Fixed Cost	34,642,277.69	34,642,277.69	34,642,277.69
Profit/(Loss)	(22,442,210.71)	(19,392,193.96)	(16,342,177.22)

Source: Annual Report of Nebico Pvt. Ltd.

The table no. 4.30 shows the profit at different levels of activities. The table shows that profit or loss will be more flexible than flexibility of sales volume. It can be seen that 20% decrease in sales revenue causes 15.73% increment in loss and 20% increase in sales revenue causes 15.73% decrement in loss.

4.17 Major Findings

The analysis of various functional budgets and application, financial tools made basis to draw some internal and external problems existing in the company's profit planning and managerial budgeting. The major findings after the detail analysis of budgeting of Nebico are presented as follows-

1.) Initially there is profit for the company but after F/Y 2063/64 Nebico has been suffering huge amount of loss. In study period net profit and loss of Nebico is Rs. 317,953.39, Rs. 1,582,008.68, Rs.-11904184.28 (loss), Rs.-11784069.01 (loss), and Rs.-20596055.97 (loss) for five fiscal years.

2.) The company has not operated in full capacity. It has not utilized its available capacity.

3.) The actual sales are more fluctuating than budgeted sales and also the actual production are more fluctuating than budgeted production of both biscuits and confectioneries product.

4.) Nebico has a practice of preparing both strategic and tactical plans.

5.) Nebico has been paying huge amount of interest for the debt service.

6.) Nebico has huge amount of old supplier's payment still outstanding. That's why raw materials cannot be supplied properly and regularly which indeed affected the regular production.

7.) There is positive and close correlation between budgeted and actual sales and production of biscuits and confectioneries.

8.) Overheads are not classified systematically which create difficulties to analyze expenses effectively. And there is no practice of effective and peer segregation of cost.

9.) Nebico was unable to meet its break-even-sales therefore it was at heavy loss every year.

10.) Nebico's liquidity ratio and profitability ratios were not satisfactory. That's why financial position of the company is poor.

11.) Nebico has very high burden of fixed cost which is the main cause of loss.

12.) The plans are prepared at top level only; lower level participation in planning is not encouraged at all.

13.) Nebico is facing a problem of Unionism which affects the organizational entire activities.

14.) Nebico's employees are beyond the knowledge of latest information technology experience.

15.) Though Nebico has corporate cultural work environment but there is lack of skilled and qualified planners for formulating profit planning or managerial budgeting.

CHAPTER-FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary

No organization can survive long period without profit. So, the main target of business organization is to increase profit for the organization's long term consistency. The main objective of budgeting or profit planning is to increase the chances of making profit. That's why all business management is fully and continually involved in organizing, planning and controlling overall business operations of the organization. So, managerial budgeting is one of the most important tools to plan and control overall business operation and which has been developed to facilitate effective performance of management process. Without proper planning of profit and their implementation, no organization can achieve its goals and objectives. The effective operation of a business organization is fully depends upon to what extent the management follows proper planning, effective co-ordination and dynamic control over overall business operations. Managerial budgeting however having some problems and limitations is an important managerial tool to facilitate the organization's performance more effectively, efficiently whether the organization is small or big.

Another important consideration in profit planning or managerial budgeting is Time Dimension. Profit plan is actually prepared for two time dimension which are 1) Strategic long range plan which is generally planned for five or above years and 2) Tactical short range plan which is planned for a year detailed by interim periods. An effective implementation and continuous follow up system is very important for budgeting and control system. That's why it is equally important to implement and control the planned operations. But the concept is not widely used in Nepal due to the backward condition of Industrialization.

Most of the organizations in Nepal are facing problems in achieving their goals and objectives. Lower level management's perception and participation are ignored by the top management in formulating and developing organization's plans, goals, objectives and strategies. This is indeed the lack of proper co-ordination and communication between different levels of management. Management has no commitments. Similarly, senior planners are having no proper skill and techniques to formulate and develop various functional budgets.

Though many of the functional budgets are prepared in Nebico, there is no proper practice of developing flexible budgets. And without formulating and developing flexible budgets, profit planning or managerial budgeting becomes baseless or groundless. The present study has actually examined the application of profit planning or managerial budgeting in Nepalese manufacturing industries. Nebico Pvt. Ltd. is one of the pioneer manufacturing industries of Nepal. Nebico was actually established in 1964 B.S. at Balaju Industrial District, Kathmandu.

This study has been analyzed and examined the present practice of profit planning or managerial budgeting of Nebico. It also tried to answer of certain queries stated in the statement of problem section. The basic objective of the study is to examine the impact of Budgeting on the profitability of Nebico. For the fulfillment of this objective various functional budgets are analyzed in detail. For this a short term budgeted data of FY 2061/62 to 2065/66 has been taken and only five years trend have been analyzed with the help of various statistical and financial tools and techniques. Descriptive approaches have equally been used to analyze the quantitative data wherever necessary. Both primary and secondary data have been collected. The present study has been organized in five chapters consisting of 1) Introduction 2) Conceptual Framework 3) Research Methodology 4) Data Presentation and Analysis 5) Summary, Conclusion and Recommendation.

5.2. Conclusion

The main objective of the study is mainly focused on the current practice of Managerial Budgeting and its impact on the profitability of NEBICO. For which various functional budgets are examined and analyzed by different statistical tools and techniques. After analyzing the present practice of budgeting in respect of Profit Planning process or Managerial Budgeting in detail, the study concludes prominently the following key points-

1. Different statistical tools have been used and which shows that there is positive and very close relationship between budgeted production & actual production and similarly between budgeted sales and actual sales.
2. The actual sales target achievement of Nebico is around more than 90.00% of budgeted sales which is probable not satisfactory.
3. The regression line about sales indicates a positive trend. Similarly the least square straight line sales trend of Nebico shows that sales will certainly be high in the future.
4. Nebico has been adapted unstable inventory policy for both biscuits and confectioneries product. Therefore there is deviation between planned production and planned sales and actual production and actual sales.
5. The industry is not working in full capacity. The highest utilized capacity is 91.80% which in FY 2061/62.

6. During the study period net profit margin for first two years is positive but after that i.e. from FY 2063/64 to FY 2065/66 there is huge amount of net loss margin suffered by the company.
7. The actual overheads of the company have not been controlled effectively that's why it is in absolute increasing trend.
8. The company has enormous long-term liabilities such as bank loan and its interest and huge amount of old Suppliers' payment (Old creditors' payment).
9. Financial analysis indicates the poor condition of Nebico to some extent. Net worth of the company is about to be negative.
10. There is no certain and clear cut boundaries to segregate cost into variable and fixed. The cost classification is not scientific and systematic.
11. Nebico has not prepared capital expenditure planning. No criteria are used to evaluate major capital expenditures.
12. The manpower planning is prepared manually not in the systematic way of direct labor budget.
13. C-V-P has not been prominently considered while developing the sales plan and pricing policies.
14. Lower level participation in formulating plans in not encouraged. The overall plans are prepared only by the top level management.
15. Overall employees are very careful of their duties and responsibilities. Proper reward and strict punishment to the employees on the basis of their work performance is maintained in the corporate culture of Nebico.
16. The company has not prepared various functional budgets for the application of existing budgets. The period covered by the prepared budget is only one year but not in detail. And there is also lack of skilled planners for profit planning or managerial budgeting.

17. The company has two plant (Oven) diesel and electricity Oven. Due to the drastic increment in the fuel price, the company utilizes only one plant oven and other one becomes burden for the company.
18. Nebico, indeed, is facing the problem of Unionism. Due to the union pressure management has tough time to operate organizational activities smoothly.

5.3. Recommendation

The following suggestions are recommended to improve the formulation and implementation of profit planning or managerial budgeting of Nebico on the basis of above research study-

1. Nebico should utilize its available capacity to the optimal extent so that the production and sales target can be achieved and more income can be generated.
2. Finished goods inventory and raw material inventory volume should be reduced to optimum level so that the idle current assets can be reduced.
3. The company should focus its concentration on sales promotional activities like advertisement by different media.
4. Cost-Volume-Profit relationship should seriously be considered while developing sales plan and strategies. To maintain breakeven point, the company should control its high overhead costs.
5. The company should classify its all overheads into fixed and variable cost systematically so that costs can be controlled to the large extent.
6. There should be proper co-ordination amongst different departments and personnel within the organization and encourage the lover level participation while formulating and implementing organization’s goals, objectives and strategies.

7. The company should maintain its staff level optimally that can obviously reduce unnecessary staff which help to increase its efficiency.
8. The company is facing the problem of unionism and to overcome from this problem the company should make proper co-ordination with them.
9. Though Nebico is a market leader of biscuits market, there are so many emerging competitors are in the markets. So the company should be focused on strong formulation of competitors' strategies.
10. The pricing policy of the company should be revised systematically. Cost of production as well as fixed cost should be considered.
11. The company should develop its specific goals for the coming year. Such goals may be net profit on sales, cost of production, sales revenue etc. Without such goals the entire operation of the industry may not be effective.
12. Planning department should have adequate authority to decide and create new ideas to formulate various plans.
13. The company should encourage and employ new generations' qualified young people to create new ideas for the development of the company. And also the company should organize training programs time to time for providing new theory and concept of the planning program to its employees.
14. The company should follow the latest information technologies and make the smooth corporate work environment to work effectively and efficiently. The company has old and clumsy work environment that should be changed.
15. Financial position of the company indicates the poor condition. Net worth capital of the company is negative, so capital structure should be restructured.

16. Proper motivational program and reward and punishment system must be conducted for effective execution of profit planning or managerial budgeting.

Hereby, Nebico is suffering huge amount of loss and to overcome from this high burden, the company should reduce its high overhead fixed cost from the different potential cost reduction sectors like control material handling loss, control over-staffing, utilize full operating capacity, consider proper product pricing etcetera. At last, the systematic approach and effective implementation of management system is very essential to make the profit planning or managerial budgeting system more progressive. And the company should have proper co-ordination between budget formulations, implementation and evaluation of achievement that can obviously contributes to increase the entire profitability of Nebico.

Appendix-1

BUDGETED SALES & ACTUAL ACHIEVEMENT (BISCUITS)

F/Y 2061/62 to 2065/66

Fiscal Year	**Budgeted Sales (X)**	**Actual Sales (Y)**	**u=(X- $\bar{X}$)**	**v=(Y- $\bar{Y}$)**	**u^2**	**v^2**	**u**
2061/62	1724.49	1700.69	90.72	165.35	8230.12	27340.62	1
2062/63	1678.06	1644.16	44.29	108.82	1961.60	11841.79	
2063/64	1602.80	1432.26	(30.97)	(103.08)	959.14	10625.49	
2064/65	1528.07	1380.92	(105.70)	(154.42)	11172.49	23845.54	1
2065/66	1635.42	1518.65	1.65	(16.69)	2.72	278.56	
	∑X=8168.84	**∑Y=7676.68**			**$\sum u^2$=22326.07**	**$\sum v^2$=73932.00**	**∑uv=3**

Source: Annual Report of Nebico Pvt. Ltd.

1) **Calculation of Arithmetic Mean**

Budgeted Sales ($\bar{X}$) = ∑X/N = 8168.84/5 = 1633.77 'MT'

Actual Sales ($\bar{Y}$) = ∑Y/N = 7676.68/5 = 1535.34 'MT'

2) **Calculation of Standard Deviation (σ)**

Budgeted Sales (σ_x) = $\sqrt{1/n}$ ($\sum u^2$) = $\sqrt{1/5}$ (22326.07) = 66.82 'MT'

Actual Sales (σ_y) = $\sqrt{1/n}$ ($\sum v^2$) = $\sqrt{1/5}$ (73932.00) = 121.60 'MT'

3) **Calculation of Correlation Co-efficient (r_{xy})**

Between Budgeted & Actual Sales (r_{xy}) = $\sum uv/\sqrt{\sum u^2}\sqrt{\sum v^2}$

= 39307.23/√22326.07 x √73932.00

= 39307.23/40627.71

= 0.9675

= 96.75 %

4) **Calculation of Probable Error (P.E.)**

P.E. of 'r' = 0.6745 x $(1-r^2)/\sqrt{n}$

$= 0.6745 \text{ x } [1-(0.9675)^2]/\sqrt{5}$

$= (0.6745 \text{ x } 0.0639)/2.2361$

$= 0.02$

5) Calculation of Co-efficient of Variance (C.V.)

C.V. of Budgeted Sales (X) $= \sigma_x/(\overline{X}) \text{ x } 100\% =$ 66.82/1633.77x100 = 4.09%

C.V. of Budgeted Sales (Y) $= \sigma_y/(\overline{Y}) \text{ x } 100\% =$ 121.60/1535.34x100 = 7.92%

Appendix-2

BUDGETED SALES & ACTUAL ACHIEVEMENT (CONFECTIONERIES)

F/Y 2061/62 to 2065/66

Fiscal Year	Budgeted Sales (X)	Actual Sales (Y)	$u=(X-\overline{X})$	$v=(Y-\overline{Y})$	u^2	v^2	uv
2061/62	12.50	11.28	6.25	5.38	39.06	28.90	33.
2062/63	4.00	3.69	-2.25	-2.21	5.06	4.90	4.
2063/64	3.25	3.19	-3.00	-2.71	9.00	7.37	8.
2064/65	9.50	9.42	3.25	3.52	10.56	12.36	11.
2065/66	2.00	1.94	-4.25	-3.96	18.06	15.71	18.
	$\sum X=31.25$	**$\sum Y=29.52$**			**$\sum u^2=81.75$**	**$\sum v^2=69.24$**	**$\sum uv=75.$**

Source: Annual Report of Nebico Pvt. Ltd.

1) Calculation of Arithmetic Mean

Budgeted Sales ($\overline{X}$) = ∑X/N = 31.25/5 = 6.25 'MT'

Actual Sales ($\overline{Y}$) = ∑Y/N = 29.52/5 = 5.90 'MT'

2) Calculation of Standard Deviation (σ)

Budgeted Sales (σ_x) = $\sqrt{1/n}\,(\sum u^2) = \sqrt{1/5}\,(81.75) = 4.04$ 'MT'

Actual Sales (σ_y) = $\sqrt{1/n}\,(\sum v^2) = \sqrt{1/5}\,(69.24) = 3.72$ 'MT'

3) Calculation of Correlation Co-efficient (r_{xy})

Between Budgeted & Actual Sales (r_{xy}) = $\sum uv/\sqrt{\sum u^2}\,\sqrt{\sum v^2}$

= $75.00/\sqrt{81.75} \times \sqrt{69.24}$

= 75.00/75.26

= 0.9968

= 99.68 %

4) Calculation of Probable Error (P.E.)

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

$= 0.6745 \text{ x } [1-(0.9968)^2]/\sqrt{5}$

$= (0.6745 \text{ x } 0.0064)/2.2361$

$= 0.002$

5) Calculation of Co-efficient of Variance (C.V.)

C.V. of Budgeted Sales (X) $= \sigma_x/(\overline{X}) \text{ x } 100\% =$ 4.04/6.25x100 = 64.64%

C.V. of Budgeted Sales (Y) $= \sigma_y/(\overline{Y}) \text{ x } 100\% =$ 3.72/5.90x100 = 63.05%

Appendix-3

PRODUCTION BUDGET & ACTUAL ACHIEVEMENT (BISCUITS)

F/Y 2061/62 to 2065/66

l Year	Budgeted Production (X)	Actual Production (Y)	u=(X- $\overline{X}$)	v=(Y- $\overline{Y}$)	u^2	v^2	
1/62	1755.91	1720.80	116.32	181.78	13529.41	33045.42	
2/63	1676.86	1643.27	37.27	104.25	1388.75	10868.90	
3/64	1600.87	1430.82	-38.72	-108.20	1499.55	11706.37	
4/65	1526.07	1379.48	-113.52	-159.54	12887.70	25451.74	
5/66	1638.26	1520.71	-1.33	-18.31	1.78	335.11	
	∑X=8197.97	**∑Y=7695.08**			**$\sum u^2$=29307.19**	**$\sum v^2$=81407.54**	∑

Source: Annual Report of Nebico Pvt. Ltd.

1) **Calculation of Arithmetic Mean**

Budgeted Production ($\overline{X}$) = ∑X/N = 8197.97/5 = 1639.59 'MT'

Actual Production ($\overline{Y}$) = ∑Y/N = 7695.08/5 = 1539.02 'MT'

2) **Calculation of Standard Deviation (σ)**

Budgeted Production (σ_x) = $\sqrt{1/n}\ (\sum u^2) = \sqrt{1/5}$ (29307.19) = 76.56 'MT'

Actual Production (σ_y) = $\sqrt{1/n}\ (\sum v^2) = \sqrt{1/5}$ (81407.54) = 127.60 'MT'

3) **Calculation of Correlation Co-efficient (r_{xy})**

Between Budgeted & Actual Production (r_{xy}) = $\sum uv/\sqrt{\sum u^2}\ \sqrt{\sum v^2}$

= 47354.88/√29307.19 x √81407.54

= 47354.88/48844.92

= 0.9695

= 96.95 %

4) Calculation of Probable Error (P.E.)

P.E. of 'r' $= 0.6745 \text{ x } (1\text{-}r^2)/\sqrt{n}$

$= 0.6745 \text{ x } [1\text{-}(0.9695)^2]/\sqrt{5}$

$= (0.6745 \text{ x } 0.0601)/2.2361$

$= 0.02$

5) Calculation of Co-efficient of Variance (C.V.)

C.V. of Budgeted Production (X) $= \sigma_x/(\overline{X}) \text{ x } 100\% =$ 76.56/1639.59 x100 = 4.67%

C.V. of Budgeted Production (Y) $= \sigma_y/(\overline{Y}) \text{ x } 100\% =$ 127.60/1539.02 x100 = 8.29%

Appendix-4

PRODUCTION BUDGET & ACTUAL ACHIEVEMENT (CONFECTIONERIES)

F/Y 2061/62 to 2065/66

Fiscal Year	Budgeted Production (X)	Actual Production (Y)	$u=(X-\overline{X})$	$v=(Y-\overline{Y})$	u^2	v^2	
2061/62	12.50	11.32	6.25	5.45	39.06	29.68	
2062/63	4.00	3.53	-2.25	-2.34	5.06	5.48	
2063/64	3.25	3.17	-3.00	-2.70	9.00	7.30	
2064/65	9.50	9.54	3.25	3.67	10.56	13.45	
2065/66	2.00	1.80	-4.25	-4.07	18.06	16.58	
	$\sum X$=31.25	**$\sum Y$=29.36**			**$\sum u^2$=81.75**	**$\sum v^2$=72.50**	**$\sum$**

Source: Annual Report of Nebico Pvt. Ltd.

1) **Calculation of Arithmetic Mean**

Budgeted Production ($\overline{X}$) = $\sum X/N$ = 31.25/5 = 6.25 'MT'

Actual Production ($\overline{Y}$) = $\sum Y/N$ = 29.36/5 = 5.87 'MT'

2) **Calculation of Standard Deviation (σ)**

Budgeted Production (σ_x) = $\sqrt{1/n}\ (\sum u^2)$ = $\sqrt{1/5}$ (81.75) = 4.04 'MT'

Actual Production (σ_y) = $\sqrt{1/n}\ (\sum v^2)$ = $\sqrt{1/5}$ (72.50) = 3.81 'MT'

3) **Calculation of Correlation Co-efficient (r_{xy})**

Between Budgeted & Actual Production (r_{xy}) = $\sum uv/\sqrt{\sum u^2}\ \sqrt{\sum v^2}$

= $76.65/\sqrt{81.75}$ x $\sqrt{72.50}$

= 76.65/76.99

= 0.9956

= 99.56 %

4) **Calculation of Probable Error (P.E.)**

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

$= 0.6745 \times [1-(0.9956)^2]/\sqrt{5}$

$= (0.6745 \times 0.0088)/2.2361$

$= 0.003$

5) Calculation of Co-efficient of Variance (C.V.)

C.V. of Budgeted Production (X) $= \sigma_x/(\overline{X}) \times 100\% =$ 4.04/6.25x100 = 64.64%

C.V. of Budgeted Production (Y) $= \sigma_y/(\overline{Y}) \times 100\% =$ 3.81/5.87x100 = 64.91%

Appendix-5

Nebico Private Limited

ACTUAL COST OF SALES

F/Y 2061/62 to 2065/66

Particulars	2061/62	2062/63	2063/64	2064/65
Opening Stock (Finished/Semi-Finished Goods)	3,005,423.80	1,034,477.80	1,034,477.80	1,770,376.65
Cost of Production	**89,143,157.94**	**103,541,979.62**	**91,584,804.69**	**84,652,429.98**
Raw Materials	43,620,649.22	53,274,632.29	46,582,564.05	43,207,686.27
Wrapping & Packaging Materials	22,390,166.23	26,944,206.32	21,682,235.19	18,829,499.63
Production Salary & Wages	10,934,628.50	10,543,766.79	11,265,824.44	10,489,013.84
Provident Fund	492,822.10	445,814.75	475,637.56	481,392.41
Gratuity	127,997.72	612,477.82	111,190.32	421,077.52
Tiffin Expenses	1,746,272.93	1,476,724.50	1,561,672.20	1,316,290.10
Fuel (Diesel)	225,478.61	234,241.90	5,954,696.03	5,422,926.44
Electricity Power	7,256,562.59	7,413,586.05	2,004,210.63	3,027,206.22
Land Rent	43,373.10	43,373.10	43,373.10	43,373.10
Water Supply	90,049.05	71,969.98	89,656.06	63,292.70
Repair & Maintenance	1,169,231.63	1,485,261.49	952,634.33	669,356.40
Laboratories (Lab Chemicals)	761,889.96	759,917.02	582,842.95	499,053.25
Miscellaneous Expenses	284,036.30	236,007.61	278,267.83	182,262.10
Closing Stock (Finished/Semi-Finished Goods)	(1,034,477.80)	(4,927,208.43)	(1,770,376.65)	(1,046,004.88)
Cost of Sales	**91,114,103.94**	**99,649,248.99**	**90,848,905.84**	**85,376,801.75**
Depreciation (Manufacturing & Non-Manufacturing)	2,938,810.46	2,712,735.27	4,327,867.03	3,147,664.06

Source: Annual Report of Nebico Pvt. Ltd.

Appendix-6

Nebico Private Limited

ACTUAL ADMINISTRATIVE OVERHEADS

F/Y 2061/62 to 2065/66

S.NO.	Particulars	2061/62	2062/63	2063/64	2064/65	2065
1	Salary & Wages	4,630,989.15	4,343,806.93	4,438,571.43	3,794,332.85	3,9
2	Tiffin Expenses	490,901.26	489,931.04	488,746.15	310,451.00	34
3	Provident Fund	178,961.56	179,786.87	187,005.16	188,597.75	24
4	Gratuity	111,358.16	86,862.72	84,100.06	175,340.41	10
5	Repair & Maintenance	454,837.75	526,121.36	588,916.74	422,676.00	5
6	Printing & Stationeries	117,796.00	112,498.50	115,251.00	66,203.50	
7	Postage/Telex/Telephone	489,880.11	490,964.70	381,383.28	357,419.02	34
8	Books & Periodicals	64,037.27	60,000.09	101,039.73	22,072.50	
9	Advertisements	123,666.29	154,882.57	313,072.79	91,642.50	1
10	Insurance Premium	404,718.81	455,411.83	577,204.69	893,028.35	7
11	Entertainment	327,469.44	130,361.80	345,000.38	230,044.49	1
12	Pooja Expenses	187,924.00	136,447.50	203,155.00	106,768.00	1
13	Fuel	770,181.09	742,694.30	540,074.96	744,708.03	6
14	Training Expenses	70,132.60	32,990.04	20,988.89	12,456.00	
15	Uniform Expenses	29,557.75	68,657.50	52,345.00	28,522.25	
16	License Fee	49,551.00	198,837.00	100,358.00	52,761.00	
17	Legal & Consultancy Fee	9,551.00	12,356.80	33,770.00	9,180.00	
18	Audit Fee	150,000.00	170,000.00	75,000.00	75,000.00	
19	Technical Fee	1,155,174.83	1,243,155.96	1,058,699.64	911,591.94	8
20	Membership Fee	59,000.00	51,000.00	90,492.50	62,022.12	
21	Board Meeting Expenses	333,655.40	125,000.00	170,984.00	50,000.00	
22	Travelling Expenses	168,255.82	157,631.32	269,980.93	220,154.12	1
23	Electricity & Water	51,230.00	45,632.75	61,840.00	58,505.20	
24	Security Service Charge	756,207.08	943,904.00	811,680.00	832,008.00	7
25	Donations	40,935.00	57,500.00	61,154.06	42,500.00	
26	Miscellaneous Expenses	56,704.01	129,910.53	64,241.61	65,387.41	
27	Employees Bonus Provision	104,662.67	262,756.15	-	-	
28	Employees Quarter Provision	60,594.18	152,121.98	-	-	
29	Bank Loan Interest	3,027,719.37	2,725,433.86	2,660,932.72	3,847,938.83	3,1
	Total Administrative Overheads	**14,475,651.60**	**14,286,658.10**	**13,895,988.72**	**13,671,311.27**	**12,8**

Source: Annual Report of Nebico Pvt. Ltd.

Appendix-7

Nebico Private Limited

ACTUAL SELLING & DISTRIBUTION OVERHEADS

F/Y 2061/62 to 2065/66

NO.	Particulars	2061/62	2062/63	2063/64	2064/65	2
1	Salary & Wages	2,491,893.44	2,267,739.38	3,013,647.12	2,476,972.23	2,
2	Tiffin Expenses	58,349.39	46,517.42	61,818.00	58,000.00	
3	Provident Fund	105,832.09	84,431.77	112,203.18	105,198.38	
4	Gratuity	46,152.35	69,081.97	91,804.50	45,876.00	
5	Transportation & Distribution	5,139,319.93	3,830,438.38	5,090,351.07	5,108,546.20	4,
6	Dealer Commission	1,884,308.05	1,591,792.97	2,115,367.56	1,873,025.00	1,
7	Advertisement Expenses	274,297.76	593,891.14	789,234.58	272,655.30	
8	House Rent	73,678.68	52,486.17	69,750.00	73,237.50	
9	Sales Promotion Expenses	1,215,719.06	2,449,242.73	3,254,850.79	1,208,439.46	
10	Charity & Donation	47,050.37	9,206.34	12,234.51	46,768.64	
11	Telephone Expenses	9,050.09	17,015.61	22,612.41	8,995.90	
12	Training Expenses	12,088.00	8,106.21	10,772.52	12,015.62	
13	Entertainment Expenses	116,920.88	292,415.70	388,597.45	116,220.77	
14	Miscellaneous Expenses	6,479.72	1,094.12	1,454.00	6,440.93	
	Total Selling & Distribution Overheads	**11,481,139.81**	**11,313,459.91**	**15,034,697.69**	**11,412,391.93**	**10,**

TAL OVERHEADS

1	Cost of Sales	91,114,103.94	99,649,248.99	90,848,905.84	85,376,801.75	106,
2	Depreciation	2,938,810.46	2,712,735.27	4,327,867.03	3,147,664.06	2,
3	Administrative Overheads	14,475,651.60	14,286,658.10	13,895,988.72	13,671,311.27	12,
4	Selling & Distribution Overheads	11,481,139.81	11,313,459.91	15,034,697.69	11,412,391.93	10,
	Grand Total Overheads	**120,009,705.81**	**127,962,102.27**	**124,107,459.28**	**113,608,169.01**	**132,**

Source: Annual Report of Nebico Pvt. Ltd.

Appendix-8

Nebico Private Limited

ACTUAL PROFIT & LOSS ACCOUNT

F/Y 2061/62 to 2065/66

Particulars	2061/62	2062/63	2063/64	2064/65	2065/
Sales	120,995,399.49	130,600,744.04	112,146,000.00	101,774,000.00	111,747
Less: Cost of Sales	91,114,103.94	99,649,248.99	90,848,905.84	85,376,801.75	106,281
Gross Profit	**29,881,295.55**	**30,951,495.05**	**21,297,094.16**	**16,397,198.25**	**5,465**
Miscellaneous Income	8,600.71	530,624.49	57,275.00	50,100.00	45
Administrative Expenses	11,447,932.23	12,353,547.43	11,235,056.00	9,823,372.44	9,708
Selling & Distribution Expenses	11,481,139.81	11,313,459.91	15,034,697.69	11,412,391.93	10,445
Bank Loan Interest	3,027,719.37	2,725,433.86	2,660,932.72	3,847,938.83	3,139
Depreciation	2,938,810.46	2,712,735.27	4,327,867.03	3,147,664.06	2,812
Net Profit before Tax	**994,294.39**	**2,376,943.07**	**(11,904,184.28)**	**(11,784,069.01)**	**(20,596,**
Less: Tax	676,341.00	794,934.39	-	-	
Net Profit after Tax	**317,953.39**	**1,582,008.68**	**(11,904,184.28)**	**(11,784,069.01)**	**(20,596,**
Last Year Profit/Loss	561,712.73	765,294.19	1,927,446.10	(9,976,738.18)	(21,760,
	879,666.12	2,347,302.87	(9,976,738.18)	(21,760,807.19)	(42,356,
Adj. of Last Year Tax	(114,371.93)	183,643.23	-	-	
	765,294.19	2,530,946.10	(9,976,738.18)	(21,760,807.19)	(42,356,
Dividend	-	603,500.00	-	-	
Transferred to Balance Sheet	**765,294.19**	**1,927,446.10**	**(9,976,738.18)**	**(21,760,807.19)**	**(42,356,**

Source: Annual Report of Nebico Pvt. Ltd.

Appendix-9

Nebico Private Limited

ACTUAL BALANCE SHEET

F/Y 2061/62 to 2065/66

Particulars	2061/62	2062/63	2063/64	2064/65	2065/
Liabilities	**58,963,084.76**	**64,689,046.52**	**65,037,213.21**	**55,201,897.54**	**45,179**
Share Capital	6,035,000.00	6,035,000.00	6,035,000.00	6,035,000.00	6,035
Reserve & Accumulated Profit/Loss	765,294.19	1,927,446.10	(9,976,738.18)	(21,760,807.19)	(42,356,
Long-Term Loan	21,235,684.38	26,661,231.14	32,509,325.21	30,266,223.45	33,250
Sundry Creditors & Other Payable	21,256,268.51	19,156,608.76	27,379,466.64	31,567,290.72	37,569
Provision	9,670,837.68	10,908,760.52	9,090,159.54	9,094,190.56	10,681
Assets	**58,963,084.76**	**64,689,046.52**	**65,037,213.21**	**55,201,897.54**	**45,179**
Fixed Assets	12,454,614.93	11,880,873.46	19,370,240.38	17,113,373.75	15,129
Investment	3,139,370.00	3,139,370.00	3,139,370.00	3,139,370.00	3,139
Current Assets	**43,369,099.83**	**49,668,803.06**	**42,527,602.83**	**34,949,153.79**	**26,911**
Closing Stock	22,413,286.42	26,418,938.20	22,370,675.64	14,516,015.13	10,371
Sundry Debtors	9,748,510.77	12,346,303.20	11,841,034.98	9,775,471.53	10,092
Prepaid Advances & Deposites	6,353,831.63	6,168,673.21	5,928,704.15	6,218,540.22	5,628
Deferred Expenses	827,527.90	1,032,892.02	1,009,929.98	2,544,321.73	312
Cash/Bank Balance	4,025,943.11	3,701,996.43	1,377,258.08	1,894,805.18	506

Source: Annual Report of Nebico Pvt. Ltd.

Appendix-10

Nebico Private Limited

FINANCIAL ANALYSIS

F/Y 2061/62 to 2065/66

Particulars	2061/62	2062/63	2063/64	2064/65
Assets	43,369,099.83	49,668,803.06	42,527,602.83	34,949,153.79
ssets	14,601,981.78	17,081,191.65	14,228,223.04	14,214,598.44
Liabilities	30,927,106.19	30,065,369.28	36,469,626.18	40,661,481.28
ebt (Current Liabilities + Long Term Debt)	52,162,790.57	56,726,600.42	68,978,951.39	70,927,704.73
Employed (Long Term Debt + Shareholder's Equity)	28,035,978.57	34,623,677.24	28,567,587.03	14,540,416.26
es	120,995,399.49	130,600,744.04	112,146,000.00	101,774,000.00
ssets	58,963,084.76	64,689,046.52	65,037,213.21	55,201,897.54
ed Assets	12,454,614.93	11,880,873.46	19,370,240.38	17,113,373.75
fit After Tax	317,953.39	1,582,008.68	(11,904,184.28)	(11,784,069.01)
Stock	22,413,286.42	26,418,938.20	22,370,675.64	14,516,015.13
rofit	29,881,295.55	30,951,495.05	21,297,094.16	16,397,198.25
Goods Sold	91,114,103.94	99,649,248.99	90,848,905.84	85,376,801.75

Source: Annual Report of Nebico Pvt. Ltd.

RATIO ANALYSIS

Particulars		2061/62	2062/63	2063/64	206
DITY RATIO:					
Ratio	Current Assets/Current Laibilities	1.40	1.65	1.17	
atio	(Current Assets-Stock-Prepaid Expenses)/Current Laibilities	0.47	0.57	0.39	
AGE RATIO:					
bt Ratio	Total Debt/Capital Employed	1.86	1.64	2.41	
TY RATIO (Times):					
Employed Turnover Ratio	Net Sales/Capital Employed	4.32	3.77	3.93	
sets Turnover Ratio	Net Sales/Total Assets	2.05	2.02	1.72	
ssets Turnover Ratio	Net Sales/Net Fixed Assets	9.71	10.99	5.79	
Assets Turnover Ratio	Net Sales/Current Assets	2.79	2.63	2.64	
y Turnover Ratio	Net Sales/Closing Stock	5.40	4.94	5.01	
TABILITY RATIO (%):					
it Ratio	Net Profit After Tax/Net Sales	0.00	0.01	(0.11)	(
n Capital Employed Ratio	Net Profit After Tax/Capital Employed	0.01	0.05	(0.42)	(
n Total Assets Ratio	Net Profit After Tax/Total Assets	0.01	0.02	(0.18)	(
ofit Margin Ratio	Gross Profit/Net Sales	0.25	0.24	0.19	
Goods Sold	Cost of Goods Sold/Net Sales	0.75	0.76	0.81	

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