

**PROFIT PLANNING PRACTICE AND ITS EFFECTIVENESS IN
NEPALESE COMMERCIAL BANK
(A CASE STUDY OF NEPAL SBI BANK)**



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DECLARATION

I declare that the work reported in this thesis entitled **“PROFIT PLANNING PRACTICE AND ITS EFFECTIVENESS IN NEPALESE COMMERCIAL BANK, A CASE STUDY OF NEPAL SBI BANK”** submitted to the Research Department of Shanker Dev Campus, Putalisadak, Kathmandu, Nepal, Faculty of Management, Trivhuvan University is my originally done in the form of partial fulfillment of the requirement for the Masters of Business Studies (MBS), under the supervision of Mr. Joginder Goet, Lecturer of Shanker Dev Campus.

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ABBREVIATION

FY	-	Fiscal Year
SBI	-	State Bank of India
SD	-	Standard Deviation
CV	-	Coefficient
Ltd	-	Limited
CVP	-	Cost Volume Profit Analysis
CMR	-	Contribution Margin Ratio
BEP	-	Break Even Point
BE	-	Break Even
Rs.	-	Rupees
MOS	-	Margin of Safety
PEs	-	Public Enterprises
RBB	-	Rastriya Banijaya Bank
PPC	-	Profit Planning & Control
BS	-	Bikram Sambat
JVB	-	Joint Venture Bank
NGBL	-	Nepal Grindlays Bank
i.e,	-	That is
NRB	-	Nepal Rastra Bank
TV	-	Trend Value
PE	-	Probable Error
FC	-	Fixed Cost
P/V	-	Profit Volume
CMPU	-	Contribution Margin

CHAPTER I

INTRODUCTION

1.1 Back Ground of the Study:

The speedy development of any country in this modern era is largely depends upon financial activities of the country, Financial activities play a role of catalyst in the process of economic development of the country. In Nepal financial sectors (banks, finance companies etc.) plays a vital role in the economic development of the country. The current state of Nepalese economy is characterized by utilized natural resources, miserable agriculture, deficit trade, mass poverty, illiteracy and so forth. Agriculture is the main occupation of almost village people but agricultural activities are not commercialized and no scientific methods of agriculture have yet been implemented. It in one of the richest country in the world in terms of natural resources and poorest in terms of economic development. The major reason behind this fact is lack of financial resources and strong institutions for resource mobilization. Existence of strong financial institutions serves as a basis for happening of financial activities, the frequency and scale of financial activities determines the profitability of financial institution and profitability is the only measure for sustainability of financial institutions.

Every company or institution is established based on the definite goals and objectives. According to objectives, the company performs is tasks. Mainly two types of institutions such as profit oriented and service oriented instruction are established. But most of them are profit oriented because profit is the life-blood of the business which not only keeps it alive but also assures the future and makes it sound. Profit planning is an important tool of the firm to achieve the objective. Profit do not just happen, profits are managed. So, to manage the profit, the management should follow various processes of profit planning because the management process and profit planning and control are interrelated of each other.

Unlike other non-bank financial companies, commercial banks do not produce any physical goods. They produce loan and financial innovation to facilitate trade transaction. Because of special role they play in the economy, they are heavily

regulated by the concerned authorities. Analysis of banks profit planning is different from that of other companies due to the special nature of revenue, cost, assets and liabilities structure of the banking industry.

The profit planning and control mechanism is being widely practiced in manufacturing industries but it is relatively new in non-manufacturing /service sectors. However this concept is equally applicable to any kind of business concern for the best utilization of the scarce resources and effectively and efficiently achieving goals.

1.2 Statement of the Problem:

A sound banking system with wide spread of branches throughout the country, availing varieties of banking services to fulfill commerce, trade, industry and agricultural needs of the country is of crucial importance for Nepal. It can be visualized that the banking development in Nepal is yet in its impacts stages so we have to go still a long way to make the country rich with sound and modern banking system.

In the light of the very facts as commercial bank is the backbone of the economy, it is highly useful to make the present study on Nepal SBI Bank Ltd. Moreover, this study has been felt need as in my humble opinion it enables us to see crystal clear picture of the bank as to how attractive its profitability positions, how its income and expenditure status is, how its growth trend is, how far it has achieved success in any business enterprises is measured by capacity of surplus generation. But the financial performances of manufacturing enterprises in Nepal are quite dismal and have not been able to contribute towards generating surplus.

The economic prosperity of nation depends upon the development of industries and commerce of the country. The banking sector plays vital role in the development of the industries and commerce. The banking sector can be termed as a booster of economic development.

The government owned banks such as Nepal Bank Ltd., Rastriya Banijya Bank and Agricultural Development Bank have been contributing towards the overall development of the country but lack in efficient management of its resources i.e.

human and monetary resources. This has led to the establishment of joint venture banks in Nepal such as Nabil Bank, Indosuez (now Investment) Bank, Standard Chartered Bank and Nepal SBI Bank Ltd. In order to overcome the drawback of government owned banks such as overstaffing which subsequently lead to higher operational cost thus making a negative impact on profit.

Nepal SBI Bank Ltd. has been operating well from their establishment. Its experience on international banking prompt and computerized services, professional attitude is factors for its rapid progress. It has been gaining from weakness and inefficiency of domestic commercial banks. It has been succeeded to capture a remarkable market share of Nepalese banking sector or financial services industry in relatively short period of time in case of Nepal SBI Bank also sound financial position.

The present study will try to analyze and examine the practice of profit planning side of Nepal SBI Bank Ltd. Without proper profit planning any business organization cannot be run in a right way. So every commercial enterprise should have systematical plan for profit in manner that does not result in loss. The study has tried to answer the following research questions:

-) To what extent has the process of profit planning been followed in the bank?
-) Whether Nepal SBI Bank has developed and applied short-range and long-range objectives for the company.
-) A system of periodic performance report detailed by assigned responsibilities is it practices or not.
-) Is there any effective communication with in the various levels in the organization with continuous feedback and responsibility accounting?
-) What are the major problems faced by the bank in developing and implementing profit plan?
-) Is tactical short-range profit plan detailed by assigned responsibility(divisions, departments and projects)
-) Is the bank giving proper attention toward non-business activities thereby generating satisfactory amount of other income?
-) What steps should be taken to improve the profit planning of the bank.

1.3 Objectives of the Study:

The Basic objective of the present study is to highlight the current practice of profit planning and its effectiveness in Nepalese Joint venture bank; especially in Nepal SBI Bank Ltd. with harmony to this broad objective, the present research will try to meet following specific objectives:

-) To sketch the trend of profit and loss.
-) To evaluate the variance between target and actual performance of the bank.
-) To examine the system of profit planning applied in the bank.
-) To analyze the major functional and financial plans formulated and implemented by the bank.
-) To examine the outcome of those plans in terms of achievement.
-) To point out possible suggestions and recommendations to improve the performance of the banks with means to profit planning system comparatively.

1.4 Scope and Limitations of the Study:

In the dynamic world nothing existing is free from limitation. This study also is not exception. The researcher has however tried to eliminate the limitations to the best possible extent, yet it suffers from the following scope and limitations:

-) Being a partial study, it has limited time to complete. It can not give deep insight on the bank effectiveness on short-term profit planning of only seven fiscal years (beginning from 2058/59 to 2064/65) are analyzed. The reason behind it is that the initial conversation made by the authority Nepal SBI Bank, it has been known that the bank normally does not prepare long-term profit plan.
-) The study is mainly depending on secondary data and informal discussion with the personnel of the bank.
-) Being a student, resource constraint is another factor, which has limited the scope of the study.
-) The study is only focused on some managerial, financial, and accounting aspects of the bank, not as whole activities of the bank. It does not cover other aspects of the bank.

) The comprehensive and the accuracy of the study are based on the data available from the management of Nepal SBI Bank and the response made by respondents on the research questionnaire.

1.5 Organization of the study:

This research has been organized in five chapters. The titles of these chapters are listed below:

Chapter-I: Introduction

The first chapters deals with the introduction, general background, statement of the problem, objectives of the study, significance of the study, scope and limitation of the study.

Chapter-II: Review of Literature

The second chapter deals with the available literature review. It includes review of relevant books, review of journals and review of previous thesis.

Chapter-III: Research Methodology

The third chapter includes research design, sources of data, sample.

Chapter -IV: Analysis and Presentation of Data

The fourth chapter is the heart of the study. This chapter includes presentation and analysis of data using financial tools, statistical tools, and showing tables and graphs if necessary.

Chapter -V: Summary, Conclusion and Recommendation

The fifth chapter deals with suggestion, which includes the summary of main finding, recommendations and suggestion for further improvement

CHAPTER II

REVIEW OF LITERATURE

2.1 Conceptual Framework:

Conceptual framework and review of the literature is supported to revise the eminent literatures related to the study. Various books, articles, journals, bulletins, reports, news statements, and thesis, etc. are the basis for preparing it. Some philosophers, writers or researchers have given the contribution on it for many years.

Profit planning is the key point of management. Without proper profit planning will not be achieved in the expected extent. Therefore, every enterprise should plan for profits in a systematic way. Various functional budgets are the basic tools for proper planning of profit and control.

Planning and controlling are the primary functions of business. Without planning and controlling any business cannot run smoothly in competitive and global environment. Profit planning is a summary of overall planning process of an organization. In fact, it is a managerial technique in written form in which all aspects of business operations for a defined period are included. It is a formal statement of policy, plan, objectives and goals established by the top management. Profit planning is deciding in advance at present what to achieve in the future. It comprises determination of a desired future and the steps to carry out. It is a process whereby companies reconcile their objectives and opportunities.

2.1.1 Profit:

Profit is the lifeblood of a business organization, which is not only keeps it alive but also assures the future and makes it sound. In other words, every such organization needs profit to survive and compete in the open market. Success or failure of a business firm depends upon the margin of profit because profit is the primary requirement for its success; moreover, the margin of profit is regarded as an indicator of economic situation of the business firm.

The main objective of any business organization is to maximize its profit and at the same time render reliable service to its customers. Both the objectives have a great significance for the proper management of the organization. Profit is device with the help of which efficiency of an enterprise can be measured.

Economic theories on profit may be put in three broad groups, the first looks up a profit as the reward for bearing risk and uncertainties, the second views profit as the consequence of frictions and imperfection in the competitive adjustment of the economic to dynamic change, the third sees.

Usually profits do not just happen. Profit are managed, before we can make an intelligent approach to the managerial process of profit planning it is important that we understand the management concept of profits (Lynch & Williamson, 1989: 99) Profit is the primary measure of successful business of a firm or a company. Generally, profit is a controversial terms and many authors defined it in different ways. In simply, profit is the main objectives of every organization in the world. Profit is the primary objective of most enterprise. Profit in the accounting sense tends to become long-term objectives which measure not only the success of product but also of the development market of it (Kulkarni, 1985: 245).

The term profits in views form management as follow:

-) An intangible expression of the goals it has set for the firm.
-) A measure of the performance towards the achievement of its goals.
-) A means of maintaining the health growth and continuity of the company
(Lynch & Williamson, 1988: 245).

So, profit is the primary measure of business success in any economy. If a firm can not make a profit, can not obtain or hold capital for very long if it can not obtain capital, it can not secure and retain other resources such as manpower, material, machine, etc. So profit is the matter of prime importance in any business. However, profit cannot be achieved without good organizational management.

2.1.2 Planning:

In simple terms planning is deciding advance about what to do, when to do and how to do, something. Planning is a two phase activity, consists of deciding upon objectives and determining strategies. It is the first essence of management and all the functions are perform within the framework of planning. Better planning is one of the frontiers of better management. In other words the planning is simplest terms as the determination of anything in advance of action it is essentially a decision making process that provides a basis for economical and defective action in the future. Management planning is as the design of a desired future state for an entity and effective ways of bringing in about. A fundamental purpose of management is to provide for a feed forward process. The concept of feed forward planning is generally recognized as the most difficult task facing the manager and it is one on which it is very easy to procrastinate. It clearly indicated that planning is a decision making process of the highest order, it requires management time and dedication and a systematic approach.

The decisions made in the planning process are:

-) Anticipatory, since they are made something in advance of action and,
-) Interrelated, since they comprise broad groups of interdependent choice from alternatives of the government (Welsch et al., 1979: 11).

Planning is the basic foundation of profit planning and a plan is a projected course of action. Planning is a technique whereby the use pattern of resources is carried out. (Agrawal, et al., 1989: 348).

A planning process includes goal setting, resource evaluating, forecasting by different methods and formulating a master plan. Planning depends upon the organized adjectives. For the planning purpose a firm's objectives can distinguish mainly three types: prime, instrumental and specific.

Three major function of management are planning execution and control and these are the key elements of the management process. Business management must plan to its activities is in advance carryout the plan and institute appropriate technique of

observation and reporting to insure that deviations from plans are properly analyzed and handled.

Management has to have a plan of action as means of protection profit. Planning cannot of course guarantee, profit in all circumstances, but it can provide safeguards (Alpine, 1976: 52)

Planning process includes setting goals, evolution resources forecasting by different methods and formulating a master plan. Planning depends upon the organized objectives can distinguish mainly three types: which are, the first is prime the second one is instrumental and the last and other is specific.

The prime objective is to complete the action. Instrumental objectives are for accomplishment of divisional and individual goal. Specific objectives are that objectives that have been specified as to time and magnitude, which are known as organizational goals. Therefore, company's objectives provide the ultimate criteria for resolving difficulties of company and company objectives are the base for long-range profit planning.

Management planning and control begins with the establishment of the fundamental objectives of the organization and continues, as the process by which necessary resources are provided and employed efficiently towards achievement of the goals (Lynch & Williamson, 1989: 139).

A management planning and control system proved the comprehensive framework within which this process is carried out. Such a system encompasses all aspects of an organizations operation. Planning is no simple task and until a firm acquires experience in formalized planning the objectives may be vague and indeterminate and any planning based in them could be misdirected planning procedures can never be fully effective. These are linked with responsibility for performance.

So, planning is an intellectual process rational way a systematic way, goal-rational task. Primary function of management and planning provides all managerial activities and it is directed towards efficiency. Planning is the sole concept of any business

organization without proper and efficiency planning no firm can accomplish its predetermined goal and objectives. Hence, it is the life blood as well as heart of any organization on which makes they efficiently run toward competitive environment therefore we can point out the nature of planning.

-) Planning is an intellectual process.
-) Planning is a goal-oriented task.
-) Planning is a primary function of management.
-) Planning pervades all managerial activities.
-) Planning is directed towards efficiency.

2.2 General Concept of profit planning:

Profit planning is the key point of management. Without proper planning profit will not just happen, so every enterprise should systematically plan for profit in a proper way. Various functional budgets are the basic tools for proper planning of profit and control them. Profit planning is a systematic and formalized approach of determining in effect of management plans upon the company's profitability. In order to undertake planning for profits the financial manager makes projections of outflows and inflows of the enterprise. The essential inflows of an enterprise are people, capital and materials and they are generally cost incurring factors. On the other hand, the planned out flows are product, service and social contribution that the enterprise generates. Having projected inflows and planned outflows so that the ultimate goal of the enterprise is reaches.

Profit plan is an estimation and predetermination of revenues of and expenses that estimates how income will be generated and how it should be spent in order to meet investment and profit requirements. A budget is a comprehensive and coordinated plan, expressed in financial terms, for the operations and resources of an enterprise for some specific period in the future (Pandey, 1991; 286).

Profit planning in fact is a managerial technique and a profit plan is such a written plan in which all aspects of business operations with respect to define future period are included. If it is a formal statement of policy plan, objective and goal established by the top management in respect of gone future period. It is a predetermined

detailed plan of action developed and disturbed as a guide to current operations and as a partial basis for the subsequent evaluation of performance. Thus, we can say that profit planning is a tool which may be used by the management in planning the future course of actions and in controlling the actual performance (Gupta, 1992: 521) Profit planning is one of the more important approaches that have been developed to facilitate effectible performance of the management process. The concept and techniques of profit planning have wide application in individual business enterprises, governmental units, charitable organizations and virtually all group endeavors (Welsch et al., 1992: 30-31).

Profit planning function of management rests upon some fundamental views that are the conviction that a management can plan the long-range decision of manufacturing enterprises by making a continuing stream of well conceived decisions. The thrust of the comprehensive profit planning concept goes to the very heart of management that is the decision making process especially for long-range success. The stream of managerial decision must generate plans and actions to provide the essential inflows that are necessary of support the planned outflows of thee enterprise. So, that realistic profits and return on investment are earned. Continuing generation of profits by managerial manipulation of the inflows and outflows provides the substance of profit planning (Welsch, et al., 1992: 31).

A comprehensive profit planning is also known as broad budgeting schedule developed in financial statement. Profit planning deals with the development of strategic and tactical profit plan. Profit planning is an important approach developed to facilitate for effective performance of management process like as planning, organizing, staffing, controlling etc. A profit plan is a detail expression of the expected result from the planning decision.

Profit planning is a comprehensive statement of intentions expressed in financial terms for both short and long term operation of the firm. It is a plan for the accomplishment or organizational expectations. It is a base for measuring the variation between planned and actual performances. The success of each organization will be determined by reaching or exceeding those targeted plans. Profit planning is one of the comprehensive approaches that have been developed to

facilitate effective performance of the management process. It is a systematic and formalized approach for performing significant phases of management planning and control functions. It includes following activities:

-) Development and application of broad and long-term objectives of organization.
-) Specification of organizational goals.
-) Development of long-run profit plan in board terms.
-) Development of short-run profit plan detailed by assigned responsibilities.
-) System of periodical performance report detailed by assigned responsibilities.
-) Follow up the procedure.

The main aim of profit planning is to forecast about future. So it plays the vital role in the development of organization. It is the most important tool in the field of managerial decision making in the enterprises. Main purposes of profit planning and control are as follows (Welsch, et al., 1992: 44).

-) To state the firms expectations (goals) in clearly format terms to avoid confusion and facilitate their attainability.
-) To communicate expectation to all concerned with management of the firms so that they are understood, supported and implemented.
-) To avoid a detailed plan of action for reducing uncertainty and for its proper direction of individual and group efforts to achieve goals.

A profit plan is a numerical plan of action which generally covers the area of revenues and expenditures. The main aim of the profit planning is to present the future forecasting numerically expressed in profit and cost centers to be established. As the size of the organization grows importance of profit planning become inevitable. A profit plan must be prepared in advance of commencing operations starting what and how things are to be done. The profit plan covers a definite period of time usually one year.

2.2.1 Purpose of Profit Planning:

A comprehensive profit planning and controlling or budgeting is a systematic and formalized approach for starting and communicating the firm's expectations and accomplishing the planning, co-ordination and control responsibilities of

management in such a way as to maximize the use of given resources. It is a management techniques in fact it is away of managing. It is the only comprehensive approach to managing so far developed that if utilized with sophisticating and good judgment fully recognizes the dominant role of the manager and provides a frame work for implementing such fundamental aspects of scientific management as management, dynamic control continuous feedback, responsibility accounting, management by exception and managerial flexibility.

The major purposes of profit planning are:

-) To state the firm's exceptions (goals) in clear formal terms to avoid confusion and to facilitate their attainability.
-) To communicate expectations to all concerned with the management of the firm so that they are understood, supported and implemented.
-) To provide a detailed plan of action for reducing certainty for the proper direction of individual and group efforts to achieve goals.
-) To coordinate the activities and efforts in such a way that the use of resource in maximized.
-) To provide a means of measuring and controlling the performance of individuals units and to supply information on the basis of which the necessary corrective action can be taken (Pandey, 1991: 288).

Profit planning is the tool which directs the organization towards achieving profit. Profit is the very basic primary short term and long-term objectives of every business organization. Every increasing ratio of profit is a good symbol of organization. In nature profit is the yard stick judging of managerial efficiency in terms of a means of measurement for the success. We can define the term profitably various way i.e. it is the difference between outflow and inflow, surplus after paying cost of producing & selling expense over income. And it can also obtain by subtracting the total costs from the total revenues. In simple it is excess of income over costs.

The most often cited prime objectives of the business firm is an enterprise economy profit's in fact a firm always seek or should seek to maximize their profits about anything else. Profit maximization is the formal purpose for which companies are established. The competitive pursuit of maximum profits creates the greatest

economic welfare. It provides management with a relatively unambiguous creation for business decision making to seek maximum profit is not only the right but also it is the moral duty of every business manager. The profit criterion remains a standard for business action and a purposeful analytical instrument. It is therefore preplanning is necessary to achieve the targeted profit.

Profit is the primary objectives of business in view of the heavy investment which is necessary for the success of most enterprise. Profit in the accounting sense tends to become a long term objectives which measure not only the success of product but also of the development market of it (Kulkarni, 1985: 245).

A profit plan is an estimate and predetermination of revenues and expenses that estimate how much income will be generated in order to meet the financial requirement. It presents a plan for spending income in a manner that does not result in a loss, And it represent and overall plan of operations covers define period of time & formulates the planning decision of the management.

2.2.2 Advantages of Profit Planning:

-) It forces early consideration of basic policies.
-) It requires adequate and appropriate historical accounting data.
-) It requires adequate and sound organization structure that is there must be a definite assignment of responsibility for each function of the enterprise.
-) It instills of all levels of management the habit of timely, careful and adequate consideration of the relevant factors before reaching importance decision.
-) It compels departmental manager to make plans in harmony with the plans of other departments and of the entire enterprise.
-) It compels all members of management from the top down, to participate in the establishment
-) It frees executives from many day to day internal problems through predetermined policies and clear-cut authority relationship. It there by provides more executive time for planning and relative thinking.

-) It tends to remove the cloud of uncertainty that exists in many organizations especially among lower levels of management, relative to basic policies and enterprise objectives.
-) It promotes understanding among methods of management of their co-workers problems.
-) It compels management to plan for the most economical use of labor, material and capital.
-) It reduces cost by increasing the span of control because fewer supervisors are needed.
-) It requires that management put down in figure what is necessary for satisfactory performance.
-) It rewards high performance and seeks to correct of unfavorable performance.
-) It aims in obtaining bank credit; banks commonly require a projection of future operations and cash flows to support large loans.
-) It forces a periodic self-analyzing of the company (Welsh, et al., 1992: 124)

2.2.3 Planning the essence of management:

Planning is essential to accomplish goals. It reduces uncertainty and provides direction to the employees by determining the course of action in advance. Budgeting compels management to plan in a comprehensive and coherent way. It is essentially a formalized planning of management and provides an alternative to grouping without direction. It should be realized that budgeting is not merely forecasting though forecasts from the basis of budgeting forecasting is the estimate of the future environment within which the company will operate and budgeting or planning on the other hand involves the determination of what should be done, how the goals may be reached, but what individuals or units are to assume and responsibility and be held accountable. Budgets provide an orderly way to proceed to attain goals and also provide a time schedule for future actions to provide measurable results.

Planning means deciding in advance what is to be done in the future. It is a method of thinking out acts and purpose before hand planning starts from forecasting and determination of future events. It is the first essence of management and all other

functions are performed within the framework of planning. Planning is a technique where the use-pattern of resources is carried out (Agrawal, 1998: 348).

Planning is the feed forward process to reduce uncertainty about the future. The planning process is based on the conviction that management can plan its activities and conditions that share of the enterprise that determine its density (Pandey, 1991: 554).

Planning could be taken as the tools of achieving organizational goals efficiently and effectively from the selection of various alternatives within an acceptable time frame. Planning consists in setting goals for the firm both immediate and long-range considering the various means by which such goals may be achieved and deciding which of any variables although various means would be best suited to the conditions expressed prevail. (Lynch & William, 1989: 20).

Planning means deciding in advance what is to be done in the future. It is a method of thinking out acts and purposes beforehand. Planning starts from forecasting and determination of future events. The essence of planning is:-

-) To accomplish goals
-) To reduce uncertainty
-) To provide direction by determining the course of action in advance

Planning is a predetermined course of action for achieving organizational goals and objectives. Effectively and efficiently in a fluid environment within a certain time frame through the selection of various alternatives. On the other hand, it holds accountability and responsibility about results to individuals. A full appreciation of the firm's task requires distinguishing among three types of company's activities which we call strategic planning, management control. The strategic planning is an important function of management. Planning requires the manager to set a future state towards which effort will be directed, i.e. what the organization is going to work with, assessing the current and future environment with which the organization must connect to achieve its goals and then determine how and when to allocate resources to accomplish the objectives. Planning on the other hand is selecting objectives and determining a course of action including allocation

resources in order to achieve those objectives in a specific time period. Planning stance what when and how thing will be accomplished an adequate planning is necessary for control of operation.

2.3 Types of planning:

According to the period covered by the planning can be broadly divided into two parts, which are strategic (long term planning or corporate planning) and tactical (short term) planning.

2.3.1 Strategic long range planning:

Strategic planning is a top management function in which the organization's purpose mission and overall objectives and policies are developed to position the organization advantageously in its operating environment. It refers to the selection of company objectives and the determination of the growth or at least constant and competitive policies that are most likely to accomplish those objectives. It is carried out the highest policy making level of the organization will travel. Basically the long-range planning is closed concerned with the concept of the corporation as a long living institution (Eding, 1964: 6). The planner most includes the following factors in his plan from the analysis of available information:-

-) Probable future opportunity
-) Uncertainty and
-) Challenges

It is the continuous process of making present entrepreneurial decision. Systematically and with the best possible organizing the efforts need to carry out those decisions and measuring the result of those decisions against the feed back It is a decision making process such decision should be related about.

-) Determination of goals objectives strategies
-) The level & direction of capital expenditure
-) The accession of new sources of funds
-) Organization design & structure etc

The controllable variables are influenced by management and can be controlled and manipulated to the best advantage of enterprise. The non-controllable on the other hand are amendable variables can however, be anticipated to maximize their unfavorable effects. For non-controllable variables are necessary. In many situations, the non-controllable variables significantly influences the controllable variables, ignoring them can thus render planning meaningless (Pandey, 1988:554).

The planning function should vary in scope and intensity with the level of management. Top management has a much broader planning responsibility than lower management and yet each level of management should have definite planning responsibility. Planning decisions are interdependent and must be partitioned in conformity with the operational or organizational sub-division of the entity. Therefore planning flow to the lines of authority and responsibility in the enterprise. This sub-division means that there is a subset of planning decision for each manager of the entity from the highest to the lowest management levels (Welsh, et. al., 1992:33).

2.3.2 Purpose of Long-rang Profit Planning:

A comprehensive profit planning and controlling is a systematic and formulize approach for stating and communication the firms expectation and accomplishing management in such a way as to maximize the use of profit plan is to achieve the maximum benefit from the resources available to an organization over a particular span of PPC is to assists in systematic planning and is control the operations of the enterprise In act it is the best source of communication and an important tool in the hand of management.

The main principles and purpose of profit planning are as follows:

-) To provide a realistic estimate of income and expenses for a period and of the financial position at the close of the period, detailed by areas of management responsibility.
-) To provide a co-ordinate plan of action, this is designed to achieve the estimates, reflected in the budget.
-) To provide a comparison of actual results with those budgeted and an analysis and interpretation of deviations by the areas of responsibility to indicate

courses of corrective actions and to lead to improvement in procedures in building future plans.

-) To provide a guide for management decisions in adjusting plans and objectives as uncontrollable conditions change.
-) To provide ready basis for making forecast during the budget period to guide management in making day to day decisions.

2.3.3 Tactical (Short-range) planning:

A tactical planning is done at all levels & involves directing the organization's activities to achieve overall strategic objectives consistent with the organization's mission and policies. Standing plans provide consistency and efficiency for ongoing operations and single use plans are developed for unique situations. Projects are short term plans designed to achieve objectives within a situation. Projects are short term plans designed to achieve objectives within larger scale programs. A short term plan covers about a year, and is less formal and detailed than long-range plans which usually cover more than three months.

The short-term plan is synonymous with the classical budgetary period of one year. The short-range planning is made after a free choice is taken on the consideration of possible alternatives. Course of action, such as courses are outlined for the medium range plan. Which does not concern implementation, its aim is weeding out a plethora of possibilities which are for the most part long on premises and short on feasible, tangible results. The short range planning is selected to conform to fiscal quarters or years. Because of the practical need for conforming plans to accounting periods and the somewhat arbitrary limitation of the long-range to three to five years is usually based as has been indicated on the prevailing belief that the degree of uncertainty over long periods makes planning of questionable value (Koontz and Donnell, 1964: 37). Short term planning is a limited time dimension usually it covers one year time period. It is used by the management as a substantial part of long-range and medium range planning. The planning processes are:-

Goals setting

Strength and weakness Analysis

Forecasting

Formulating

2.3.3.1 The purpose of tactical planning:

-) Resources as facilitates, personnel, and raw materials must be acquired & prepared.
-) Costs must be controlled thorough planned acquisition to avoid higher costs of crisis purchasing.
-) Efforts involving more than one unit must be directed and co-ordinate.
-) Problems must be identified.
-) Opportunities must be identified.

Assessing the environment and evaluating recourses may show new opportunities. Research shows that companies actively & formally plan consistently outperform informal planner. This is true for small company and large corporations.

2.4 Fundamentals of profit planning:

The fundamentals concern with effective implementation of the management process, responsibility considerable management, organization, activities and approaches necessary for proficient and sophisticated application of comprehensive profit planning. The major important fundamental are:

1. Management process
2. Managerial involvement and commitment
3. Organization Adaptation
4. Responsibility accounting
5. Full communication
6. Realistic expectation
7. Timeliness (time dimension)
8. Flexible application
9. Individual and group recognition and
10. Follow up

These fundamentals are concerned with the effective application of theory at management process. It is applied for desirable management orientation. A successful and sound PPC system is based upon certain perquisites. These perquisites represent management attitude, organization structure and managerial approaches necessary for the effective efficient application of the profit planning and control system.

1. Management Process

The five function of management collectively constitute the management process, because they are concurrently and continuously being performed in managing an enterprise. The management process used sequential linkages and feedback.

The five functions and the management process:

2. Management Involvement and Commitment

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

-) Understand the nature and characteristics of profit planning and control.
-) Be convinced that this particular approach to managing is preferable for their situation.
-) Be willing to devote the effort required to market and its operation.
-) Support the program in all its ramifications and
-) View the results of the planning process as performance commitment.

3. Organizational Adaptation

The profit planning program must rest upon sound organizational structure and the assignment of authority must establish with in framework in which enterprise objective may be attained in a coordinated and effective way on a continuing basis. The scope of interrelation specific assignment of management authority and responsibility at all organizational level.

4. Responsibility Accounting

Profit planning required a responsibilities accounting system that is one tailored to organizational responsibility within this primary accountings structure. Classification of costs. Revenues and other relevant financial data may use to meet the need of the enterprises. A responsibility accounting system can be designed and implemented regardless of the other feature of the accounting system.

5. Full communication

Communication is a necessary activity in all facts of management is an interchange of thought of information to bring about a mutual understanding between two or more parties. It may be accomplished by combination of words “symbol”. Messages and subtleties of understanding that come from working together day by day act of two or more individuals. It is through the link that brings together the human element in an enterprise. Managerial decisions and leadership are accounted by communication. To often communication is taken for granted, consequently information flows are inadequate. There must be three primary formations in an entity downward, upward and laterally in the organization.

6. Realistic Exception

In profit planning, management must be realistic and avoid being either unduly conservative or irrationally optimistic. The care with which budget goals are set for such items as sales, product levels, cost, capital, expenditures cash flow, and productivity determines the usefulness of a profit planning program for profit planning purpose. Realistic expectation it must be related (a) to their specific time and dimension and (b) to an assumed external and internal environment that will prevail during the time span within these two constraints should assume a high level of overall efficiency. However the objectives and goals should be attainable.

7. Time Dimension

Effective implementation of the profit planning concept requires that the management of enterprises establish the definite time dimension for certain type of decision. In viewing time dimension perspectives in managerial planning, a clear cut distinction between historical and futuristic consideration.

8. Flexible Application

The fundamentals stress that a profit planning and control program must dominate the business and that flexibility in application of the plans must be a forth right policy so that strait jacket are not imposed and all favorable opportunities are seized ever through they are not covered by the budget profit planning program administered in sophisticated manner permits greater freedom at all management level. This effect is possible because all levels of management are brought into the decision making process when plans are developed.

9. Individual and Group reorganization

The behavioral view points of the management process have been accorded extensive and intensive investigation by psychologists, education and businessmen. The attention is increasing in scope and intensity in reorganization that here are many, unknown, misconceptions, and speculation concerning that respects of the individual and the group in varying of profit planning focuses on a positive approach to resolve behavioral problems but many respects it can provide on effective to their partial resolution.

10. Follow-up

The fundamentals holds that both food and sub-standard performance should be carefully investigated the purpose being there fold. In the case of sub- standard performance, to lead in a constructive manner to immediate cooperative action; in the case of out standing performance To recognize it and perhaps provide for a transfer of knowledge to similar operations to provide a business for better planning and control in the future(Welsh, et al., 1992:41).

2.5 Overview of the PPC Process:

Management function	Sequential phases of the PPC process	Primary responsibility
↑ Planning ↓	1) External relevant variables: identify and evaluate	↑ Executive management ↓
	2) Broad objectives of the business: develop organization revise	
	3) Specific enterprise goals: development consistent with items above	
	4) Enterprise strategies: specify major thrusts to attain the object and goals.	
	5) Executive management planning institutions: specify planning premises for managers (based on items 1-4 above)	
	6) Project plans: develops and evaluated for each project	Middle Management ↓
	7) Strategic profit plan (long –range): develop for 3,5 or 10 years	
	8) Technical profit plan (Short-range): develop for upcoming year	
↓ Leading	9) Implementation of profit plans: implements throughout the budget year	All Management levels
Controlling ↓	10) Performance report: prepare monthly report by responsibility	↓ All management levels
	11) Follow-up: provide feedback takes corrective action and re-plan	

The planning process should involve periodic consistent and in depth re-planning so that all aspects co-operations are carefully re-examined and re-evaluated. This prevents a budget planning approach that involves only justification of increases over the prior period. The concern of revaluation and the necessity to justify all aspects of the plan periodically finds its strongest support in what has been called zero-base budgeting (Pyhrr, 1973: 49).

The profit planning process gives in figure typically is repeated each budget year. Also, the components of a profit planning program typically are restated for each budget year.

There are eleven steps in profit planning processes which are discussed below.

2.5.1 Process of Profit Planning:

The profit planning process should involve periodically and in-depth re-planning so that all the aspects of operation are carefully re-examined re-evaluated, this prevents a budget planning approach that involves only justification of increase over the prior period. The concept of revaluation and the necessity to justify all aspects of the plans periodically find its strongest support which is called zero based budgeting. The Major basic components of comprehensive profit planning and control program are (Welsch, et al., 1992: 76).

1. Identification and evaluation of external variables:

External variable have a direct and significant impact to an enterprise's decision. Different variable have different relevancy according to the nature or the producer, maker, consumer, and socio-economic and geographical environment of an enterprise. Such variables and planning are to work with non-controllable variable and planning. For a large business with broad market have relevant variables in broad scope where as small business would be concerned only with the local and regional variables PPC program begins with the identification and evaluation of such affection both controllable and non-controllable.

2. Development of the broad objectives of the enterprises:

Based on a realistic evaluation of the relevant variables and assessment of the strength and weakness of the organization, ex-management can specify the broad objectives, the mission, vision and ethical character of the enterprise identification continuity of purpose and definition. The statement of broad objectives is the first part of the substantive plan of and organization. It normally should not specify quantitative goals. Character of the business it should represent the foundation or building block upon which to develop and partially reinforce by management. Other employees, owners, consumers and other enterprises that have commercial contacts with it.

3. Development of evaluation of company strategies:

Company strategies are the basic thrust, ways and tactics that will be used to attain planned objectives and goals. The purpose of development and dissemination enterprise strategy (both long- term and short-term) is to find the best alternative for attaining the planned broad objectives and continual concern and makes periodical reassessment of the strategies in the light of careful analysis of all relevant and their problem future impact on the enterprise.

4. Development of planning premises:

This phase of profit planning and control program involves communication from up to middle and lower level management. It explains the broad objectives, enterprise goals, enterprises strategies and any other management instruction needed to develop the strategic and tactical profit plan.

5. Preparation and evaluation of project plans:

Project plans encompasses variable time horizon since each project has a unique time dimension. Project plans encompasses such item such as plans for improvement of present produces, new technology physical facilities, entrance of new industries, new technology physical facilities, entrance of new industries, new technology utilization and other major activates that can be separately for specific planning purpose. The nature of projects is such they must be loaned as separate units. In planning for a project, the span of time to be considered normally must be the anticipated life span of the project. Projects approved must be failed in to the strategic and tactical profit plan.

6. Development and approval of strategic and tactical profit plan:

The managers of the various responsibility centers in the enterprise receive the executive management planning, instruction and the projects. They can begin intensive activities to develop their respective strategic and tactical profit plans. It is possible that strategic and tactical plans. But full participation can cause unfavorable behavioral effects participatory planning and respect of the executive management instruction, the manager of each responsibility center will immediately initiates within his responsibility center to develop a strategic long range profit plan (in Years).

7. Development of supplementary analysis:

A number of important analyses may be developed supplementary to the short and long range profit plans. These analyses apply many useful managerial techniques in decision making process some important analysis are marginal cost, return on investment, linear programming models, variable expenses budget etc.

8. Implementation of profit plan:

Implementation of management plans involves the management function of leading subordinates in attaining objectives and goals. At all levels requires objectives, goals, strategies and policies be communicated and understood by subordinates. Realistic and attainable objectives and goals development through significant participation present a real challenge to the overall enterprise and to each responsibility centers. The plans should be developed with the management conviction what they are going to meet or exceeded in all major respects. These principles are effectiveness in the development process, the various executives and supervisor will have a clear understanding of their responsibilities and the expected level of performance.

9. Use of periodic performance:

Profit plans are being implemented during the period of the specified in the tactical plan. The account department on a monthly basis prepares these performance reports. Also some special performance reports are prepared on an "as needed basis". These reports are primarily repetitive in short time.

10. Use of flexible budget:

The flexible budget concept applies only to expenses. It is completely separate from the plan, but it is used to complete it. The flexible expenses budget is also referred to as the variable budget. Flexible budget gives realistic information about expense that make it possible to compute budget amounts for various output volume or rates of activity in each responsibility center. The formula gives the relationship of each expense output in the center. Each formula includes a constant expense factors and variable expense rate. So to apply concept in department each expenses must be classified into the three categories:

Fixed expenses:

Those cost which remain essentially constant in the short-run regardless of change in output or volume of activity are called fixed expense.

Variable expenses:

Those cost which directly changes in proportion of change output or volume of activities are known as variable cost.

Semi-variable expenses:

Those costs which are neither fixed nor variable but have both fixed and variable component are known as semi-variable cost.

Flexible expenses budget formula can be used in two phases of the planning and process.

-) In performance control reports.
-) To develop expense amount included in the tactical profit plan, if the flexible budget formula is developed concurrently with the strategic and tactical profit plans and they are used to compute the budgeted expended amount in the tactical profit plans. This is done by multiplying the planned output or activities or each responsibility center by the related variable expenses rate for each center and then adding any fixed cost for the center.

11. Implementation and follow up:

Follow up is an important part of effective control because performance reports are based on assigned responsibilities. They are the basis for effective follow up actions it is important to distinguish between cause and effect. The effects of performance variations must be determined by the management. Both favorable and performance variances after identifying the basis causes as opposed to the results, as alternative for corrective action must be selected. Then the corrective action must be implemented similarly in the case of favorable performance variance. The underlying causes should also be identified which needs the immediate correction.

2.5.2 Components of Profit Planning:

Considering the profit planning process the components of a profit planning program for a particular year are as follows:

1. The substantive plan:

This plan is represented by the following:

-) Broad objective of the enterprise.
-) Specific enterprise goals.
-) Enterprise strategies.
-) Ex-management planning instructions.

It is represented by the broad objectives. Strategies, specific plans, and programs of the organization and the concurrent commitment of management both long-range accomplish the objectives and plans. The substantive plane may be characterized as the 'prose part' of the plan rather than the 'number part' of the plan. It gives the foundation for the financial plan.

2. The Financial Plan

The financial plan quantifies the planned financial results of implementing managerial objectives planned strategies, plans, and policies. The financial plan then represents a translation into financial terms of objectives and strategies of management for specific periodic of time. The financial plan includes:

1. Strategic long-range of profit plan:
 -) Revenue, costs, and profit projections.
 -) Major projects and capital additions.
 -) Cash flow and financing.
 -) Personnel requirements.
2. Tactical short-range (annual) profit plan:
 -) Operating Plan
 -) Revenue plan

2.5.3 Limitation and problems of Profit Planning and Control:

The following main limitations are usually given against profit planning:

-) It is difficult, if not impossible, to estimate revenues and expenses in out company realistically.

-) Our management has no interest in all the estimates and schedules. Our strictly informal system is better and works well.
-) It is not realistic to write out and distribute our goals, policies and guidelines to all the supervisors.
-) Budgeting places too great a demand on management time especially to revise budgets constantly. Too much paper work is required.
-) It takes away management flexibility.
-) It creates all kinds of behavioral problems.
-) It places the management in a straitjacket.
-) It adds level of complexity that is not needed.
-) It is too costly, aside from management time
-) The managers, supervisors and other employees hate budgets.

Management must consider the following limitations in using the profit planning and control system as a device to solve managerial problems (Welch et al., 1992: 60):

1. Based on estimates:

Profit planning is not an exact science. It is based on estimates. The success of a profit planning depends to a large extent on the accuracy with which the basic estimates are made. Therefore estimates should be made on the basis of all the facts available. The accurate can be made by using correct and modify statistical technique and management.

2. Based on rigidity:

Profit planning and control is an estimation and quantitative expression of all relevant data. So there can be the tendency to attach some sort of rigidity or finality of them. But rigidity makes the PPC useless, the PPC must be flexible. Various techniques must be tried, improved or discarded and replaced with others. In other words, PPC program must be dynamic in every sense of the word.

3. Application for long period:

The installation of a complete PPC is not possible in a short period. It should be continuously used in the business and should be revised and modified with the changed situations of the business.

4. Execution is not automatic:

A skillfully prepared PPC will not itself improve the management of an enterprise unless it is properly implemented. For the success of PPC it is essential that it is understood by all the related persons inside the enterprise. It is very much required that each executive must feel the responsibility and should make efforts to attain the budget goals.

5. Not a substitute for management:

PPC is not a substitute for the management. It is totally wrong to think the introduction of PPC is alone sufficient to ensure success and to guarantee future profits. It is only achieving the end.

6. Costly affairs:

The installation of a PPC system is an elaborate process involving too much time and costs.

7. Proper evaluation:

For finding out of the deficiencies proper evaluation should be made. In the absence of proper evaluation budgeting will hide inefficiencies. So there should be continuous evaluation of the actual performance, standard also should be re-examined regularly.

8. Lower morale and productivity:

By setting unrealistic targets and using PPC as a pressure tactic, it will lower morale and productivity.

2.6 Budgeting for Short-Range Master Budgeting in Service Sector:

) Administrative Expenses Budget:

Administrative expenses include operational costs. They are incurred in the responsibility centers that provide supervision of and service to all functions of the

enterprise, rather than in the performance of any one function. Because the large portion of administrative expenses are fixed rather than variable. This signed persists that they cannot be controlled. General administrative expenses are close to top management therefore there is a strong tendency to overlook their magnitude

Ñ **Cash Budget:**

Whether the organization big or small whether it may be if there is profit and no cash but out of that profit it could not meet its obligation. To meet the obligation cash is necessary; therefore, the cash budget is one of the most significant statements prepared during the budget period without cash the existence of the company is impossible. In all companies of all types, cash management is vital. The planned statement of the cash budget is necessarily prepared near the end of the annual planning cycle along with the planned income statement and balance sheet. Cash budget is prepared after all the operational budgets and capital expenditure outlays have been accomplished. Cash budget provides the information regarding beginning balance of cash, cash receipts, disbursement and ending balance of cash for the budgeted period. Most company prepares both long-term and short-term plans about their cash flow. The short-term cash budget is included in annual profit plan. Generally, there are two parts in the cash budget (1) the planned cash receipts, (2) the planned cash disbursement.

Ñ **Capital Expenditure Budgeting:**

Planning for capital expenditures (Investment in long- term assets) for increasing the revenue of the firm is called capital expenditure budgeting. It is a decision making process for an investment on long-term projects for feature benefits that increase the wealth of the firm and thereby increase the value of share of the firm. These decisions pertain to fixed assets which are in operation and provide a return over a long period of time. Capital budgeting results the exchange of current fund for future benefits which will occur over a series of years to come. Future benefit will occur through cost reduction, cost saving, revenue increase

Capital expenditures budget is an important part of profit plan. It is directly related to a company's operating assets, especially land, equipment and other operational assets.

Capital expenditures include such fixed assets as property, plant, equipment, major innovations and patents. Typically, capital expenditure projects involve large amounts of cash, other resources and debt that are tied up for relatively long period of time.

Capital expenditure budget has its time dimension. The time dimension of a capital expenditure budget must be consistent with the comprehensive profit plan. That is, a capital expenditures budget must include:

-) A strategic (long-term) capital expenditure budget.
-) A tactical (short-term) capital expenditure budget.

Capital budgeting procedures:

1. Identification of objectives
2. Search for investment opportunities
3. Estimation of cash flows(outflows and inflows)for the proposals
4. Selection of the proposals based upon the acceptance criterion
5. Continual revaluation of investment proposals after their acceptance

Investment proposal:

1. Introduction of new product proposal /New investment proposal
2. Expansion proposal
3. Replacement proposal
4. Diversification Proposal
5. Research and Development proposal
6. Miscellaneous: Change in the method of distribution, undertaking advertisement campaign etc.

2.7 Concept of Cost volume profit analysis:

The dictionary meaning of ‘cost’ is the price paid to acquire produce, accomplish or maintain any things. ‘Volume’ is a mass or quantity of something amount. “Profit” is the ratio of such pecuniary gain it amount of capital invested and “Analysis” is resolution, separation or breaking into parts. But, actually cost volume profit analysis is the process of examine the relationship among revenues, costs and profits for a relevant range of activity and for a particular time frame. Basically, CVP analysis involves finding the most favorable combination of variable costs, fixed costs, selling price (service price), sales volume (service volume) and mix of products (services)

sold. CVP analysis provides powerful tools to identify the courses of action that will and will not improve profitability. The analysis of relationship between cost, volume and profit is known as Cost Volume and Profit analysis. It is an analytical tool for studying the relationship among volume, cost, price and profit. Cost Volume Profit analysis is a tool used by management for decision making purpose as well as cost control and profit planning. The aim of cost volume profit analysis is to have a fair estimate of total cost, total revenue and profit and various sales volumes. CVP analysis provides the management with a comprehensive overview of the effects on revenue and cost of all kinds of short-run financial changes. It is related to profit, sales volume and cost.

There are three factors of cost volume and profit analysis which is interconnected and dependent on each other. For example, in service oriented organization profit depends upon interest & other revenue, interest & other expenses and volume of service. In service oriented organization, generally cost volume profit analysis answer to question such as:

-) What interest and other revenue are needed to avoid losses?
-) What service volume is necessary to earn a desired net profit?
-) What will be the effect of change in interest rates?
-) Which area of income is most profitable and least profitable?
-) Which service should be discontinued?
-) What will be the new break-even point and profit for changes in interest rates, service fees, fixed cost, variable cost and volume of services? And so on.

2.7.1 Assumptions and limitations of CVP analysis:

The following are the main assumptions and limitations:

-) Cost must be classified into fixed and variable component.
-) The behavior of variable cost should be linear.
-) Fixed cost will remain the same up to maximum level of output or entire range of output.
-) There is no significant difference between volume of production and sales.
-) Planned selling price and actual selling price, planned sales mix and actual sales mix are homogeneous.
-) There is no change in productivity as well as efficiency for the period being analyzed.

Cost structure:

The term 'Cost' may be defined as money or money value given up to acquire goods or services. Cost has no particular meaning other than specific purpose. According to cost behavior or variability, the costs are classified into three parts. That is fixed cost, variable cost and semi-variable (semi-fixed) cost.

Fixed Cost

The cost which is fixed up to a maximum level of output or any entire range of output is called fixed cost. Rent, depreciation, salaries etc are fixed cost . Fixed cost also called capacity cost, periodic cost, standing cost and burden cost. If the level of production increases then per unit cost decreases and vice versa, but total amount of fixed cost remain constant up to a range. Unit fixed cost varies. When other factors remain unchanged, the change in fixed cost effects to BEP and net income. When fixed cost is increased, the volume of BEP increases but net income decreases or vice-versa.

Variable Cost

The cost which varies with the volume of output in the same proportion is called variable cost. Variable cost is that cost which is directly affected by change in the activity level. The unit variable cost is always constant. Direct material, direct labour, direct expenses, variable manufacturing and selling & distribution etc. are variable cost. If the activity level increases then total amount of variable cost also increase and vice-versa. Change of variable cost effects to P/V ratio, BEP and net income. When variable cost increase; net income, P/V ration and margin of safety will be decreased but it helps to increase BEP and vice-versa.

Semi-variable Cost

Expenditures that can not be categorized as purely fixed or variables are termed as mixed or semi-variable cost. It includes both cost that are fixed as well as variable. Both total and unit semi-variable cost are vary in different level of activity. Repairs and maintenance cost, supervision cost, telephone charges electricity charges are some examples of semi-variable cost. It should be separated into variable and fixed elements for profit planning, cost control d decision making.

Contribution Margin analysis:

The term “contribution margin” refers to leave something for some purpose. Contribution margin is a significant tool of CVP analysis and break-even analysis. Contribution margin is the remaining figure after recovering all variable cost from the sales revenue. According to the management accounting language, the difference between sales revenue and variable costs represent to the contribution margin. The remaining amount after recovering variable cost from sales revenue, first of all is used to cover of fixed costs. (Goet, et.al, 2064; 421)

It can be expressed by the following formula:

$$\text{Contribution Margin} = \text{Sales} - \text{Variable Cost}$$

Or

$$= \text{Fixed Cost} + \text{Profit}$$

Contribution margin ratio shows the relationship between contribution margin and sales. The percentage of contribution margin on the basis of sales is known as contribution margin ratio. The Contribution margin ratio is also known as Profit volume ratio.

$$\text{Contribution Margin Ratio} = \frac{\text{Total Contribution Margin}}{\text{Total Sales}}$$

Or

$$= 1 - \frac{\text{Total Variable Cost}}{\text{Total Sales}}$$

If more than one period sales revenue and profit or loss are given and there is no change in the fixed cost, the contribution margin ratio (P/V ratio) will be calculated using the following formula:

$$\text{Contribution Margin Ratio} = \frac{\text{Difference in Profit}}{\text{Difference in Sales}}$$

2.7.2 Margin of Safety:

Margin of safety is the excess of actual sales (interest income) over the break-even sales volume (interest income). In other words, it is the difference between the budgeted or actual sales revenue (interest Income) and the break-even sales revenue (interest Income). It is a passion above the break-even point. It gives management a feel for how close projected operations are to be organization’s break-even point.

Managers often consider the size of the company's margin of safety when making decisions about various business opportunities. The larger is the safety margin, the greater is the chances for the company to earn profit (i.e. larger the margin of safer the company). A high margin of safety is particularly significant in of depression when the demand for the company or firm's product is falling. A low margin of safety may result for a firm, which has a low contribution ratio. When both the margin of safety and P/V ratio are low, management should think of the possibilities of increasing the selling price, Provided it does not adversely affected the sales volume, or reducing variable costs by bringing improvement in the manufacturing process. Margin of safety can be ascertained by using the following formula: (Munankarmi, 2003; 127)

Margin of safety = Total actual sales value – Break-even sales value

$$\text{Margin of Safety in amount} \times \frac{\text{Profit}}{\text{PV Ratio}}$$

$$\text{Margin of Safety in Units} \times \frac{\text{Profit}}{\text{CMPU}}$$

The relationship between margin of safety and actual sales is known as margin of safety ratio, which is determined as follows: (Munankarmi, 2003; 127)

$$\text{Margin of Safety Ratio} \times \frac{\text{Actual Sales} - \text{ZBEP Sales}}{\text{Actual Sales}}$$

Cost Volume Profit analysis is great helpful in managerial decision making specially cost control and profit planning.

CVP analysis of Nepal SBI Bank based on following assumptions:

- I. In case of Bank Net Burden is treated as fixed cost which is calculated on the basis of total other cost and totals other income.
- II. In case of Interest Margin (spread) is calculated on the basis of total interest income and total interest expenses.

2.8 Concept of Bank:

Banks in general are business firms come into existence to make money or to earn profit. But they are little different from other types of business firms. First, they trade money and provide money-related services. Second, they collect saving of thousands of people, so their success or failure affects many people. Thus, it is binded by

different rules and regulations so as to prevent failure and ensure the saving of people do not undergo loss merely due to fault decision or judgment of a few executives of bank. Third, it can create money and affect the market by increasing or decreasing volume of money in circulation.

Literally, banking means the business of borrowing and lending money. The word bank can be defined as an institution that accepts deposits from individuals and groups, repayable on demand, for the purpose lending and investment.

A bank attracts deposits of money from individuals and groups by offering security, promise to pay instantly and conveniently on demand, and by offering a rate of interest and different financial services. The individuals and groups from whom it accepts in this way are known as depositors.

We have seen branches of banks in towns and villages offering various types of services in the past, they used to just accept deposits from the public (savers) and give loans to the public (users). With the passage of time, their functions have increased manifold. Now, some of the banking functions are being carried out by other financial institutions as well.

In view of above, it is very important to know the precise meaning of the bank.

As per Kent – “A bank is an organization whose principal operations are concerned with the accumulation of the temporary idle money of the general public for the purpose of advancing to other expenditure.”

As per banking regulation Act of India – “Banking means the accepting for the purpose of lending or investment of deposit of money form the public repayable on demand or otherwise, withdraw able by cheque, draft or otherwise.”

As per U.S law - “Any institution offering deposits subject to withdraw on demand and making loans of a commercial or business nature is a bank.”

Finally, a bank is an institution which deals with money by accepting various types of deposit, disbursing loan and rendering other financial services. Since banks are rendering a wide range of services to the people of different walks of life, they have become an essential part of modern society.

A bank is a business organization that receives and holds deposit of funds from others makes loans or extends credit and transfer fund by written order of depositors” **Commercial Bank Act, 1974 of Nepal** has defined as A commercial bank is one which exchange money, deposits money accepts deposits, grants loan and performs commercial bank in function and which is not a bank meant for co-operative agriculture industries or for such specific purpose.

The word ‘Bank’ commonly refers to the ‘Commercial Banks’. **The oxford dictionary** defines banks as An establishment for keeping money and valuables safely, the money being paid out on the customers order (by means of cheques). The traditional definition is too simple and incomplete because of modern banking is not confined only to keeping the money and valuable and to make the payments.

Dr. Mali Ram says Banking means the accepting for the purpose of lending or investing. The deposits of money from public repayable by cheques, drafts, and order or otherwise.

Further R. S. Says in his book modern Banking writers, ordinary banking business consists of changing cash for bank deposit and bank deposit from one person of corporation (one depositor to another) giving the bank deposits in exchange for bills of exchange, government bonds, secured and unsecured premises businessman to reply.

E.S. Kilse gave the meaning of bank emphasizing the bank’s function as creation of money. “A bank’s business is basically to buy and sell credit. Credit instruments are its stock in trade. Also, on the basis of its own credit a bank creates money by transferred by credit instruments are its stock in trade. Also, on the basis of its own credit a bank creates money by transferred by credit instruments.

American Institute of banking defines commercial banks as, “Commercial bank is a corporation which accepts demand deposit subject of cheques and makes short loans to business enterprises, regardless of the scope of its other services”. The institution laid emphasis on the four function of commercial bank as ‘Receiving and handling deposit of money (Deposit Function), Handling payment of money (Payment

Function), making loans and investments (Loan Function) and creating money by extension of credit (money Function).

I.M. Pandey says, a firm should ensure that it does not suffer from lack of liquidity, and also that it is not too much likely liquidity. The failure of a company to meet its obligation, due to lack of sufficient liquidity, will result in bad credit image. Loss of creditor's confidence, or even in law suits resulting in the closer of the company. A very high degree of liquidity is also bad; idle assets earn nothing. The firm's funds will be unnecessarily tied up in current assts. Therefore, it is necessary to strike a proper balance between liquidity and lack of liquidity". A bank must maintain adequate cash and bank balance to meet day to day expenditure. It shows the extent to which it can oblige its short run obligation.

Prof. Manohar Krishna Shrestha says Maintenance of a satisfactory level of liquidity is significant enough to meet the deposit liabilities that are to be paid on demand not only that paying ability of the bank, but at times, unsure the smooth operation to a considerable".

A bank should have an optimum capital structure i.e. the optimum blend of equity and debt capital. During excessive profit periods, highly leverage capital structure becomes optimum and vice versa. Such a strategy will increase shareholder's return. Proper utilization of the bank's resources in an indication of sound performance in their regard.

Economist Bishwomver Pyakurayal writes the present changing context of the economy calls for a substantial revitalization of the resources. How much they have gained over the years depends chiefly on how far they have been able to utilize their resources in an efficient manner. Therefore, The task of utilization of resources is as much crucial as the mobilization is the underutilization of resources not on result in loss of income but also goes further to discourage the collection of deposit.

Thus, the bank should properly utilize the resources mobilized and increase profitability. For these, bank should have appropriate and more realistic profit

planning. Because planning is the direction or way of action. It is not better only the good planning but banks also should be able to implement planning in time.

2.8.1 Origin and Evolution of Bank:

The term 'bank' is derived from the Italian word 'Banco' which refers to the bench or which the banker would keep its money for lending and exchanging. The history of modern banking dates back to the ancient period i.e. as early as 7th century B.C. There was reference to the activities of money changers in the temple of Jerusalem in the New Testament. In ancient Greece the famous temples of Delphi and Olympia served as the great depositories for people's surplus funds and these were the centers of money lending transaction. There were three pioneers of Modern Bank i.e. Merchants, Money lenders and Goldsmith.

The first bank called the 'Bank of Venice' was established in Venice, Italy in 1157 A.D. It then inspired other countries to open up banking institutions like the Bank of Barcelona in 1401 A.D. and Bank of Geneva in 1407 A.D. After that the Bank of Amsterdam, was established in 1609 when 'The bank of England' was established in 1694 A.D. it played the vital role for the development of modern banking system. After its establishment, bank spread all over the world.

The history of banking business in Nepal is very short and is only 7 decade. If we try to see the history of banking transaction in depth, evidence of money lending function are found in practice before 8th century. In 780 B.S., Gunakama Dev the ruler of Kathmandu reconstructed Kathmandu town by collecting funds from people. In 14th century 'Tanka Dhari' system had been running. In the period of Ranodip Sing in Kathmandu established an office called 'Teja Rath Adda'. From this office the government distributed salary to their employees and it provided loans to government employees 5% Of interest against the security of gold, silver etc.

Because of the development of economic activities in Nepal, the above institution could not fulfill the needs of people so, in Kartik 30, 1994 B.S. Nepal Bank Limited was established as one of the semi government commercial bank which had Rs. 10 million authorized capital and Rs. 842 thousand paid up capital and ownership were

controlled by private shareholders till 1951 A.D., though the government had very insignificant amount of share. Later government increased its share up to 51% of the total share in 1952 A.D. and hold control over the bank's management. It has done the pioneering functions in spreading the banking habits among the people.

About after 19 years from the establishment of Nepal Bank Limited, Nepal Rastra Bank as the Central Bank was established with authorized capital of 10 Million (fully subscribed by Nepal Government) on 26th April 1956 under the Nepal Rastra Bank Act 1955. Until then Nepal Bank Ltd. had to perform some of the functions of central bank itself. Rastriya Banijya Bank was established under full government ownership with authorized capital of 10 million and paid up capital of 2.50 million on 23rd Jan 1956, after ten years from the establishment of Nepal Rastra Bank. Rastriya Banijya Bank and Nepal Bank Limited are serving people of this country as well as for the nation with more than 200 branches of each spread all over the country.

2.8.2 A Brief Overview of Joint Venture Banks:

A joint venture is an association of individuals or firms formed to carry out a specific business project. Although a joint venture is very similar to a partnership, it differs in that it is limited to the success or failure of the specific project for which it was formed. As in the case of the partnership, a joint venture is formed by a contract agreement in which each partner assumes unlimited liability for the organization's debt. Joint venture banks are the mode of trading to achieve mutual exchange of goods and services for sharing comparative advantages by performing joint investment schemes between Nepalese investors financial and non financial institution as well as private investors and their parent banks each supplying 50% of total investment . The parent banks, which have experienced in highly mechanized and efficient modern banking services in main parts of the worlds, have come to Nepal with higher technology, advanced management skills, and an international banking system. JVBs are formed in Nepal as full-fledged commercial bank under the company Act.2021 B.S. and operated under the Banijya Bank Act 2032 B.S. The JVBs that are established in Nepal are operated under the rules, Regulations, and guidance of Nepal Rastra Bank. NRB has issued certain directives to those banks.

Nepal government's deliberated policy of allowing foreign JVBs to operate in Nepal is basically targeted to encourage local traditionally running commercial bank is to enhance their banking capacity through competition efficiency, modernization, mechanization via computerization and prompt customer service (Shrestha, 2047: 44).

The main objectives of the JVBs are to grant banking facilities to the business persons by facilitating different services. Under the liberalization policy of Nepal government, so many JVBs are established in Nepal. Joint venture banks pose various challenges to the existence of the inefficient and very traditional domestic banks. However, the same challenge can be taken by the domestic banks and an opportunity to modernize them and sharpen their competitive zeal (Sharma, 1988: 37). It is undoubtedly true that the JVBs are already playing an increasingly dynamic and vital role in the economic development of the country. The role, which is being playing, by the JVBs can be categorized by the services which are rendering by it. Introducing new methods and technology in banking services, creating a competitive environment, providing new services, providing more resources for investment, offering better links with international market etc are the roles that are playing by JVBs today.

Twenty six commercial banks are being well operating in Nepalese economy and among them 12 are in Joint Venture form.

The first joint Venture bank in Nepal is Arab Bank Limited (NABIL Bank Ltd.). It had commenced its operation on July 12, 1984 with Rs.100 million as authorized capital; Rs.50 million as issued capital and Rs.30 million as paid-up capital. 50% of paid –up capital has shared by National Bank of Bangladesh (NBB). Dubai Bank Ltd. financed that capital after its collapse. The same was shared by Union Bank of Middle East and later it was renamed as Emirates Bank International Limited and recently, its 50% share has hold by NBB, 20% by Nepalese Financial institutions and remaining 30% by general public. Nepal Indosuez Bank Limited (Investment bank) (NIBL), as second Joint Venture bank was registered on 21 January 1986 and it commenced its operations on 27 Feb. 1986 with Rs.60 million and Rs.30 million as Authorized, Issued, and Paid-up capital, respectively. Banque Indosuez, Paris has shared 50% of the paid up capital Rastriya Banijya Bank, and National Insurance Corporation each has shared 15% and public has shared 20% of the paid up capital.

The third Joint Venture Bank in Nepal is Grindlays Bank Limited (Standard Chartered Bank Ltd.) (STBL). It was established and operated in 1987 with authorized capital, Issued Capital and Paid-up Capital of Rs. 100 million, Rs. 50 million, and Rs.30 million respectively. Its 50% paid-up capital has shared by Grindlays Bank (London) 35% by Nepal Bank Limited and remaining 15% by public.

The new government, elected in 1991/92 introduced liberal and market oriented economic policy, then the number of Joint Venture Banks grew dramatically.

Himalayan Bank Limited (20% shares owned by Habib Bank Pakistan), Everest Bank Limited (20% shares owned by United Bank of India, later Punjab National Bank). Nepal SBI Bank Limited (50% shares owned by State Bank of India) was established on July 1995(2050/03/23). Its authorized capital is Rs.1000 million. Issued capital is 500 million. More over, its paid up capital is 425.16 million. Its total deposits reached up to 7198 million and total loan and advances reached up to 5531.83 million in the end of Fiscal Year 2061/62. Nepal Bangladesh Bank Limited (50% shares owned by international Finance Investment of commerce Bank Limited Dhaka), Bank of Kathmandu (50% shares owned by the Siam Commercial Bank PCL Thailand) is operating on Nepalese Banking sector.

There are 26 commercial banks operating in the country which are as follows:

1. Nepal Bank Limited (1994/7/30)
2. Rastriya Banijya Bank (2022/10/10)
3. Nepal Arab Bank Limited, first joint venture bank of Nepal
(A joint venture with Dubai Bank Limited of Dubai) (2041/3/29)
4. Nepal Indosuez Bank Limited
(A joint venture with Banque Indosuez of France) (2042/12/16)
5. Standard Chartered Bank Limited
(A joint venture with Grind lays Bank Limited of London) (2043/10/16)
6. Himalayan Bank Limited
(A joint venture with Habib Bank Limited of Pakistan) (2049/10/5)
7. Nepal SBI Bank Limited
(A joint venture with State Bank Limited of India) (2050/3/23)
8. Nepal Bangladesh Bank Limited
(A joint venture with IFIC of Bangladesh) (2050/2/23)

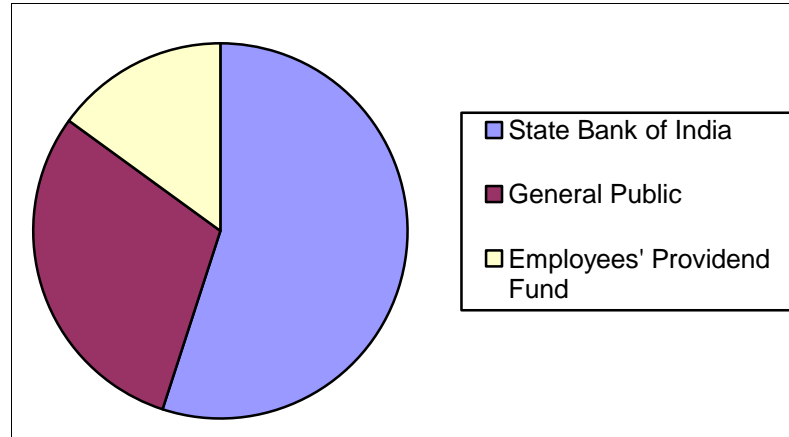
9. Everest Bank Limited
(A joint venture with Punjab National Bank Limited of India) (2051/7/1)
10. Bank Of Kathmandu Limited (A joint venture with (2051/11/28)
11. Nepal Industrial and Commercial Bank Limited (2055/4/5)
12. Kumari Bank Limited (2057/12/21)
13. Machhapuchhre Bank Limited
14. Kumari Bank Limited (2057/12/21)
15. Laxmi Bank Limited (2058/12/21)
16. Siddhartha Bank Limited (2059/9/9)
17. SunRise Bank Ltd.
18. Lumbini Bank Limited
19. Global Bank Limited (2063)
20. Citizen Bank Limited (2064)
21. Nepal Credit and Commercial Bank Limited
(A joint venture with Bank of Ceylon of Srilanka) (2053/6/28)
22. Kist Bank Limited
23. Nepal Merchand BankLtd. (NMB)
24. Development Credit Bank Ltd. (DCBL)
25. Prime Bank Ltd.
26. Bank of Asia Ltd.

2.8.3 An Introduction of Nepal SBI Bank:

Nepal SBI Bank Ltd. was incorporated with the Office of Company Register (OCR), Kathmandu, Nepal on April 28, 1993 under Regd. No. 17-049/50 and licensed by Nepal Rastra Bank on July 6, 1993 to operate under the Commercial Bank Act 1974. Nepal SBI Bank Ltd. commenced operation on July 7, 1993 with their corporate office at Hattisar, Kathmandu. Nepal SBI Bank Ltd. is a joint venture partner of State Bank of India-India's largest bank, with over 203 years of history and expertise in banking which has 55 percent ownership. The remaining shares are held by Employees' Provident Fund of Nepal 15 percent and the Nepalese general public 30 percent. Authorized capital of this bank is (20,000,000 ordinary shares @ Rs. 100 each) Rs. 2,000,000,000, Issued capital is (8,775,000 ordinary shares @ Rs. 100 each)

Rs.877,500,000 and paid up capital is (8,745,278.4 ordinary shares @ Rs. 100 each)
Rs. 874,527,840.

Shareholding Pattern



It covered a remarkable market share, among the financial institutions, with in a short period of time. It is the fifth bank as Joint Venture Banks.

Since its establishment this bank has been giving all commercial banking facilities like Nepal Bank Limited. Rastriya Banijya Bank. Nepal Arab (Nabil) Bank Limited. Nepal Grindlays (Standard Chartered) Bank Limited and etc. It performs almost all kind of commercial banking operations inclusive of the most modern ones. The fund based activities include short-term as well as long-term loans covering purchases like export credit, import LC, industrial loan, commercial loan, priority sector credit, working capital loan, term loan, education loans, housing finance, higher purchase, lease financing, overdraft and loan against fixed deposit receipts, Nepal Government bond and guarantees including cash credit. With respect to non-financing activities, the bank issue guarantees (Besides providing forward covering, foreign exchange transactions, partially for import payments). Even today, who makes plan to travel India used to take SBI Rupee Traveler's Cheques from Nepal SBI Bank Limited. Indians take it (Indian Rupee Traveler's Cheques) as cash equivalent.

2.8.3.1 Personnel and Organizational Pattern:

The bank was started with the total staff of 25 of which 5 were expatriates at senior management level and 5 were local based officers and 15 local staff at assistant level. The total number of staff in the bank reached 352 by the end of July, 2009.

2.8.3.2 Services Offered by Nepal SBI Bank:

-) Deposits-current, saving, fixed, Margin and others
-) Remittances/Money Transfer to and from SBI in India
-) Loans and Advances/Priority and Deprived Sector Lending
-) Consortium Lending's
-) Letters of Credit
-) Bank Guarantees/Bid Bonds
-) Sale and Encashment of Foreign Currency Travelers Cheques
-) ATM and Bharat Yatra Card Services
-) Other Services: Safe Deposit Boxes, Nepal SBI Online Banking etc.

The Bank is connected with a very wide network of correspondent banks of SBI and can facilitate business with all important centers from east to west of the globe. Until the date of this study Nepal SBI Bank Ltd. has its thirty five full-fledged branches, four extension counters, and very shortly Gaushala Branch, Kuleshowor Branch, Gwarko Branch and Dallu Branch is going to be opened. The Branches of Nepal SBI Bank Limited are listed below:

1. Baglung Branch-Bank Road , Baglung
2. Bhairahawa Branch-Bank Road, SiddharthaNagar-5
3. Bhaktapur Branch-Surya Binayak, Bhaktapur
4. Birtamod Branch-Anarmani-3, Birtamod
5. Biratnagar Branch- Main Road, Biratnagar
6. Birjung Branch-Adarshanagar, Birjung
7. Bouddha Branch-Chuchhepati, Bouddha, Kathmandu
8. Butwal Branch-Traffic Chowk, Butwol
9. Commercial Branch-Prabhu Complex, Lainchour, Kathmandu
10. Damauli Branch-Maharishi Chowk, Damauli Byas
11. Dang Branch- Newroad, Ghorahi, Dang

12. Dharan Branch-Lok Plaza, Mahendra Path, Dharan-5
13. Durbar Marg Branch-Durbar Marg, Kathmandu
14. Gongabu Branch- Kathmandu, Nepal
15. Gulmi Branch-Mukkhyya Bazaar, Tamghas, Gulmi
16. Hetauda Branch- Main Road, Hetauda
17. Ilam Branch- Ilam Bazar, Ward No.1
18. Itahari Branch-Dharan Road, ItahariMunicipality, Sunsari
19. Janakpur Branch-Shiva Chowk, Station Road, Janakpur
20. Kalanki Branch-kalanki, Near Makalu Petrol Pump
21. Maharajung Branch-Near to Australian Embassy
22. Narayanghat Branch-Shahid Chowk, Narayanghat
23. Nepalgunj Branch-Surkhet Road, Nepalgunj Municipality
24. New Baneshwor Branch-Minbhawan, New Baneshwor, Kathmandu
25. New Road Branch-Dhakwa Building, Dharma Path
26. Palpa Branch-Silkhan Tole, Tansen-4, Palpa
27. Patan Branch-Jawalakhel, Lalitpur
28. Pokhara Branch-New Road , Pokhara
29. PPO Dharan Branch-Amar Path, Dharan-13, Sunsari
30. PPO Pokhara Branch-Embassy of India Pension Camp
31. Rampur Branch-Shreepur, Ward No.14
32. Srijana Chowak Branch-Srijana Chowk, Pokhara, Kaski
33. Surkhet Branch-Birendra Nagar-6, Surkhet
34. Teku Branch-Teku, Kathmandu
35. Waling Branch-Waling Bazar, Waling Syangja

Proposed Branch Location in Kathmandu Valley:

Gaushala, Kuleshwor, Gwarko, Dallu

2.8.4.1 Review of Legislation's Related to Commercial Bank:

Commercial Bank Act, 2031 was formulated to facilitate the smooth run of commercial banks. All the commercial banks are functioning under this act. This act defines the bank as a commercial bank is one which exchange money, deposit money accepts deposit grants loans and performs commercial banking function and which is not a bank meant for co-operative, agriculture, industry or for specific purpose.

The commercial Bank Act 2031 also pointed the function of commercial banks: commercial banks provide short-term debts necessary for trade and commerce. They take deposits from the public and grants loans in different loans in different forms. They purchase and discount bills of exchange, promissory note, and exchange foreign currency. They discharge various function of behalf of their customers provided that they are paid for their service.

The preamble of Nepal Bank Act 1994 clearly states the need of commercial bank in the country, in absence of any bank in Nepal the economic progress of the country was being hampered and causing inconvenience to the people and therefore with the objective of fulfilling that need by providing services to the people and for the betterment of the country; this law is hereby promulgated for the establishment of the bank and its operation.

2.8.4.2 Review of Previous Research:

Various thesis works have done in different aspects of commercial banks such as lending policy, interest rate structure, investment policy, resource mobilization, capital structure etc. but the concept of profit planning and control (PPC) is still new in non-manufacturing concerns. Comparatively, the application of PPC in non-manufacturing concerns that provided services mostly accepting deposits and providing loans. PPC has not been properly used even in banks, though they normally estimate their future earning and expenditure. There are various thesis works have been submitted in different aspects of commercial banks in which profit planning and control is directly or indirectly linked although a separate study of profit planning and control is missing linkage.

Mr. Regmi (1997) has conducted a research “**profit planning and control in commercial bank of Nepal**”. A case study of **Grind Lays Bank**.

The main objectives of the study based on three important aspects:

-) Highlight about the company (**NGBL**) regarding as establishment, growths, objectives, function and other related factors.
-) Analyze the PPC of Grind Lays Bank by measuring various quantities variables such as profit, dividend, cost interest incomes, loss investments, deposits and other important various.

He has conducted his research work to fulfill and to accomplish the above mentioned objectives; the study covers the time period of 10 years (from 1986/87 to 1995/96). He has pointed out various findings and recommendations and among these few major findings and recommendations are as follows:

His major findings:

-) Revenue cost and profit of NGBL are high comparing to other joint venture Bank
-) Profit and Cost, both are increasing in every year but increment of profit is greater than cost, and size of increment is highly fluctuate.
-) NGBL has given less importance for government securities because average interest from G.S. is around 8% which is too low comparing to average rate of loans and advance.
-) Higher collection of deposits has facilitated NGBL in providing higher volume of loans and advances.

His major recommendations:

-) Banks should be shareholders minded, only and most appropriate way is to think from the view of shareholders, so it gets less public criticism and higher favor.
-) To maintain the market share, NGBL should adopt innovation that take place in the market.
-) Shareholders should be given a choice whether they prefer stock dividend or cash dividend.
-) One way to be socially responsible is one way to be profitable. One can be focus its activities for the betterment of society only when there is sufficient

profit. Profit is the major factor to be capable to serve the society in different aspects so, “focus on profit should be continued proper profit plans are the major means to achieve the desired objectives and plans. As a result, their would not be highly fluctuating increments.

Abha subadi (2001) has conducted a research ‘**profit planning in Commercial Bank** a case study of **Rastriya Banijya Bank with reference to profit planning aspect of Rastriya Banijaya Bank.**

Her major findings are:

-) Most of the investments made against the security of land, gold and silver.
-) Banking costs are relatively higher.
-) No specific and clear investment policy and functioning without any definite direction.
-) Deposit mobilized is not properly utilized.
-) RBB tried to manage in true professional way but the political environment in bureaucratic approach has compromised the commercial environment.

Her major recommendations:

-) Banking business should be free from undesirable interference from politicians and high-ranking officials.
-) Adequate training should be given to the personnel and make the operation computer system based to make the service prompt.
-) The investment policy of RBB should be in accordance with the goal of economic up-liftman of the nation and it should also accommodate long and medium term credit demands besides the short-term loans.
-) Bank should look for new sectors of investments as well for its growth.

There are various thesis work has been done about profit planning and control of manufacturing concerns which help me directly or indirectly to analyze my study. Whatever the research in the area of profit planning has been made are also not in depth and in detail. An attempt is made here to review some of the research which has been submitted in profit planning and control in the context of Nepal.

Ojha, he has tried to highlight the current practice of “**profit planning and its effectiveness in Nepalese public enterprises**”. He found in his study that the objectives of Nepalese PEs are not clear. Conflict between social objectives and profit objectives are hindering to profit planning program of PEs. Nepalese PEs are not successful to maintain co-ordination with the organization. Further more, Nepalese PEs lack of budgeting experts and skilled planners. Plans are formulated on traditional ad-hoc basis. The pricing system of Nepalese PEs is not scientific. They adopt traditional pricing methods. Usually cost-plus pricing is applied to determining price. Certain products are priced below cost as per Government of Nepal circular.

2.8.4.3 Review of Journals

After the reviewing of books, certain useful journals focusing either on profit planning on banks are studied to know the recent trend and development and its implication of commercial banks.

Shanker Raj Joshi “profit planning is a way of management and basic technique of decision making which leads an organization to ultimate successes. He mentions that it is strictly an internal affair and provides guidance to management. It is based upon investigation, analysis of data, and systematic decision making process like scientific management. I agree with this view as it is equally applicable to commercial banks. Profit planning or budgeting integrated all the functions of each department appropriately so every bank need to prepare it according to view of **Chalise**. “There should be a separate planning department in each of the commercial Banks and this department should be entrusted with the task of budget preparation in addition to the prepare of five year plans and annual programs. Planning should cover deposits, credit, profit, and loss recovery”. So planning should cover the area that. But there is no use of better planning without proper implementation. Prompt correctives measures should be taken as a follow-up of each progress review. The success or failure in program implementation should be followed by rewarded of punishment. So that planning results in better implementation.

Prof. Dr. Shrestha adds “A clear cut criteria is necessary to treat interest suspense account and it is advisable that all interest unpaid more the six month needs to be treated as unearned income. Adequate provisioning is the surest way to get relief from sinking loan after careful consideration of portfolio risk. Mandatory provision in case of doubtful debt must cover from the very beginning. For bad loans a less stringent provisioning policy should be adopted depending upon consideration of customer’s situation and value of guarantees”. As profit is The prime concern of any business organization, he adds ‘commercial banks can shift focus on new fields of business like syndicated loans, documentary credits involving foreign trade guarantees given and receive, forward exchange operation, etc.

Every commercial bank should know their strength and weaknesses which enables to utilize opportunity and avoid risk. One way to assess for evaluates ratios relating to solvency, liquidity, profitability and other relevant financial indicators. Besides these, the government also formulated the policies relating to commercial banks through Nepal Rastra Bank. NRB has given some directives to commercial banks, some of then have direct impact on profitability too. These are one of them is that some commercial banks should invest on poverty and priority sectors 2.5% and 12% Of total deposit respectively is good for public welfare. NRB has given the authority of fixing interest rate in lending and borrowing considering benefit.

Every commercial Bank are informed that they should make their paid-up capital at least Rs.500, 000,000 by 2000 A.D. In the same way it has some directives regarding liquidity position no it is that cash reserve requirement in every commercial bank should be 12% of its total domestic deposits liabilities. Out of this 12% at least 8% should be balanced with Nepal Rastra Bank. This provision is to meet unexpected withdrawals.

CHAPTER-III

RESEARCH METHODOLOGY

The basic objective of the present research is to highlight the current practice of profit planning and its effectiveness in Nepalese Commercial bank. I have selected one representative commercial bank for the purpose my research work, which is Nepal SBI Bank Limited. The study has been based on secondary sources of data. The research methodology is followed to achieve the basic goals and objectives of this study.

3.1 Research Design:

The research design of this study will be closely related with the various function and financial plan and other accounting statements as well as the actual result of the plan, So the overall study will be viewed as a blend of descriptive, analytical, and as well as qualitative and quantitative study.

3.2 Sources of Data:

The study is mainly depending upon secondary data of the bank. Secondary data will be obtained from the published documents, annual report of related bank, and various information from Nepal Stock Exchange, Katmandu, bulletins and reports of NRB and other reports and bulletins of the concerned organizations are i.e. ministry of finance etc.

3.3 Population and Sample:

The large number of commercial banks operating in Nepal has been considered as population. Out of these populations, the single commercial bank, i.e. Nepal SBI Bank Ltd. has been selected as the sample for the present study.

3.4 Period of the Study:

It will be covered the time period of five years for the purpose of trend analysis and the time period one year for the purpose of short-range profit plan analysis. Long-range trends are taken from FY 2058/59 (2001/02) to FY2064/65 (2007/08). For short

range plan data are taken from FY 2064/065. Because there are two-time dimension in profit planning i.e. long term and short term.

3.5 Tools and Techniques:

Data collected from various sources are properly managed, analyzed and presented in proper tables and formats. Such tables and formats are interpreted and explained wherever necessary. To analyze the collection of data, following financial and statistical tools are used:.

Statistical Tools: Statistical tools are mathematical measure of various variables, which helps to estimate or predict of unknown value of one variable with help of other known variable. Similarly, it helps to measure interrelationship of various variable in this study to statistical tools are measured i.e. Trend Analysis, Regression Analysis, Correlation Coefficient of Variance, Test of Goodness of Fit the Regression Estimate, Probable Error, Percentile Increment, Mean, Standard Deviation.

Financial Tools: Ratio Analysis is one of the most frequently used tools to evaluate the financial health, operating results and growth. Financial Ratios by themselves do not indicate position of the institution. A standard or norm is needed against which to judge them. Financial tools 'CVP Analysis' are used.

3.6 Research Variables:

The research variables of the study are mainly related with the budgeted and actual accounting statement of the bank. Budgeted and actual deposits collection, lending of deposits, capacity utilization, profit and loss manpower, capital expenditure and cash flows relating to long term and short term periods of the bank are main research variable of this study. Other variables are also used whereas necessary.

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

4.1.1 Analysis of Deposits:

Bank has accepted deposits mainly in current, saving and fixed account. Bank pays no interest in current account. Interest rate in fixed account is normally more than that of saving account. Call & short deposit has also high interest rate but its maturity period is short.

Deposits

The following table presents the budgeted and actual deposits from the fiscal year 2001-02 to 2007-08.

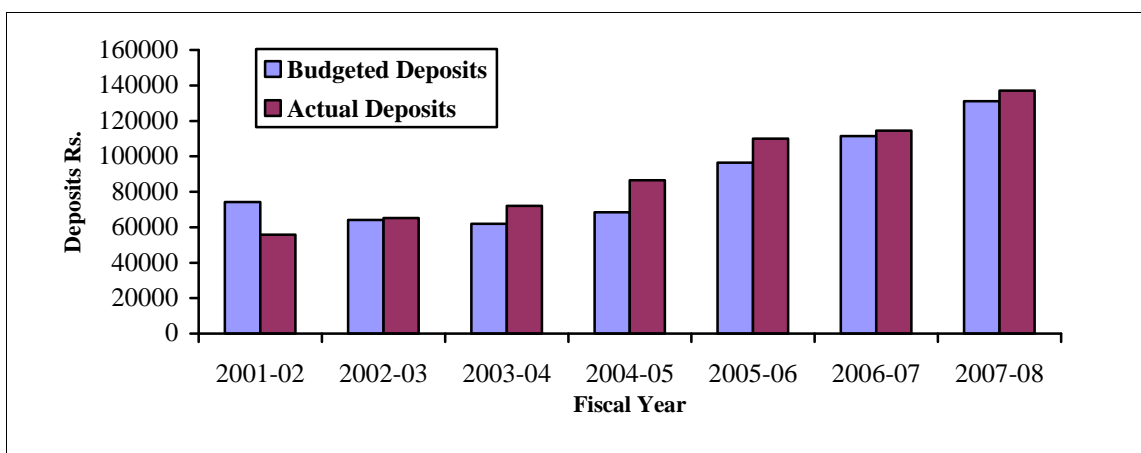
Table No: 1
Budgeted and Actual Deposits

Year	Budgeted Deposits	Actual Deposits	Achievement
2001-02	74180	55724	75.12
2002-03	64080	65228	101.79
2003-04	61867	71983	116.35
2004-05	68500	86547	126.35
2005-06	96456	110020	114.06
2006-07	111456	114452	102.69
2007-08	131144	137153	104.58

Rs. (00000)

Chart No: 1

Chart showing Budgeted and Actual Deposits



Sources: Table No. 1

The above table shows that the budgeted deposits is in increasing trend up to fiscal year 2007-08 except fiscal year 2003-04. In the fiscal year 2003-04 the budgeted deposits is decreased by 3.45% with comparison to the budgeted deposits of previous year. And the actual deposits are in increasing trend up to fiscal year 2007-08.

The bank is able to achieve more than 100% of the targeted deposits except FY 2001-02. The deposits achievement is less than the targeted deposits in the fiscal year 2001-02. In the FY 2004-05 actual deposits is 126.35% of the budgeted deposits that is the best result and in the FY 2001-02 only 75.12% of the budgeted deposits which was poorest result among the seven years period.

Summarized results

Particular	Budgeted	Actual
Mean	868.29	915.86
S.D.	247.72	276.15
C.V.	28.53 %	30.15 %
Correlation	0.9183	

Source: Appendix -I

The above table shows that the coefficient of variation is higher in actual deposits than the budgeted deposits which show that the budgeted deposits are more consistent and homogeneous than actual deposits. A greater coefficient of variation is said to be more heterogeneous. Here, Nepal SBI Bank's actual deposits are the nature of more variability than budgeted deposits. Calculated correlation coefficient shows positive correlation coefficient between budgeted deposits and actual deposits.

4.1.2 Analysis of loans and advances:

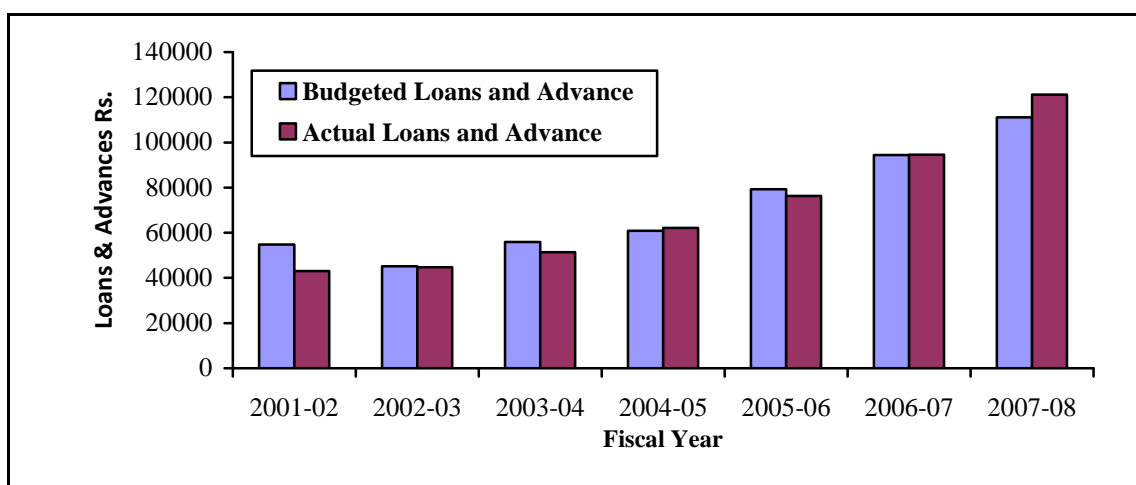
Loans and advances are the measure sources of earning of every joint venture commercial banks. It is the money lent for the borrower's temporary use with the consideration if repayment with the interest. Normally his/ her loans and advances is beneficial, in the same way, it is risky too in the sense of con-refunding. Non-repayable loan us treated as bad loan. It is known as bad debt. Normally higher loans and advance results in higher bad debts and vice versa. Other factors like screening of loan requests weight of collateral follow up loans play major role in reducing the size of bad debts.

The following table presents the budgeted and actual loans and advances from the fiscal year 2001-02 to 2007-08.

Table No: 2
Budgeted and Actual Loans & Advances

Year	Rs. (00000)		
	Budgeted Loans and Advance	Actual Loans and Advance	Achievement %
2001-02	54845	42992	78.39
2002-03	45142	44687	98.99
2003-04	55958	51436	91.92
2004-05	60900	62138	102.03
2005-06	79315	76267	96.16
2006-07	94415	94604	100.20
2007-08	111067	121136	109.07

Chart No: 2
Budgeted and Actual Loans & Advances



Sources: Table No. 2

The above table shows that the budgeted loans and advances is in increasing trend up to fiscal year 2007-08 except fiscal year 2002-03. In the fiscal year 2002-03 the budgeted loans and advances is decreased by 17.70% with comparison to the budgeted loans and advances of previous year. And the actual loans and advances is in increasing trend up to fiscal year 2007-08. The loans and advances achievement is less than the targeted loans and advances in the fiscal year 2001-02, 2002-03,-2003-04

and 2005-06. And the loans and advances achievement is more than the targeted loans and advances in the fiscal year 2004-05, 2006-07 and 2007-08 which shows that the bank is able to find the new field and areas of financing. In the FY 2007-08 actual loans and advances is 109.07% of the budgeted loan and advances that is the best result and in the FY 2001-02 only 78.39% of the budgeted loans and advances which was poorest result among the seven years period.

In order to examine the nature of the variability of budgeted and actual loans and advances of different years the arithmetic mean, standard deviation and coefficient of variation should be calculated. The detail calculations of these variables are presented in appendix-1.

Summarized results

Particulars	Budgeted	Actual
Mean	716.57	704.57
S.D.	223.02	268.12
C.V.	31.12 %	38.05 %
Correlation	0.9858	

Source: Appendix -2

The above analysis shows that coefficient of variation is higher in actual loans and advances than that of budgeted loans and advances which shows that the budgeted loans and advances are more consistent and homogeneous than actual loans and advances.

A greater coefficient of variation is said to be more heterogeneous. Here, Nepal SBI Bank's actual loans and advances are the nature of more variability than budgeted loans and advances. Calculated correlation coefficient shows positive correlation coefficient between budgeted loans and advances and actual loans and advances.

4.1.3 Analysis of Interest Expenses:

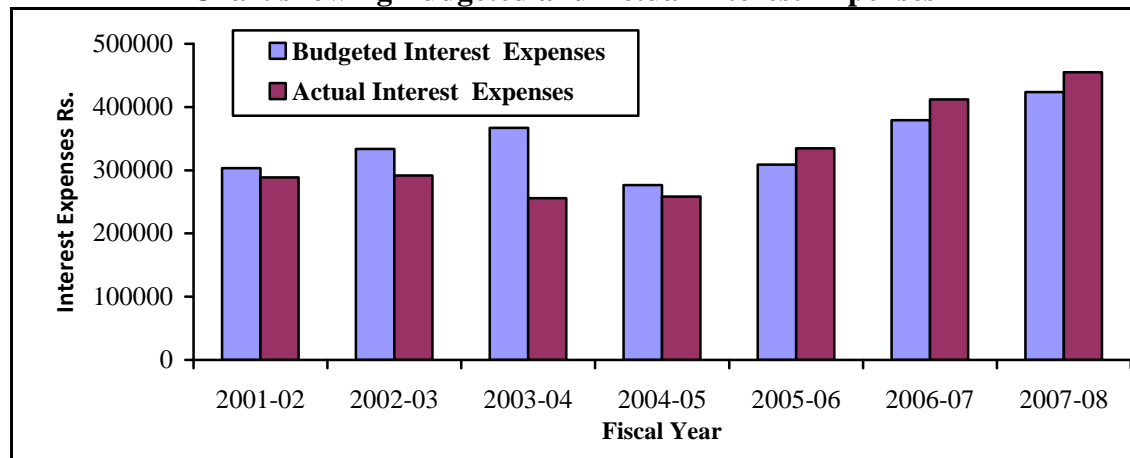
The following table presents the budgeted and actual interest expenses from the fiscal year 2001-02 to 2007-08.

Table No: 3
Budgeted and Actual Interest Expenses

Rs. (000)

Year	Budgeted Interest Expenses	Actual Interest Expenses	Variance	Variance %
2001-02	303485	288580	14905	4.91
2002-03	333838	291820	42018	12.59
2003-04	367227	255919	111308	30.31
2004-05	276343	258430	17913	6.48
2005-06	309056	334770	(25714)	(8.32)
2006-07	379074	412261	(33187)	(8.75)
2007-08	423516	454917	(31401)	(7.41)

Chart No: 3
Chart showing Budgeted and Actual Interest Expenses



Sources: Table No. 3

The above table shows that both budgeted and actual interest expenses are in fluctuating trend. In the fiscal year 2003-04 actual interest expenses is 30.31% of the budgeted interest expenses that is the best result and in the FY 2006-07 negative 8.75% of the budgeted interest expenses achievement which was poorest result among the seven years period.

Summarized results

Particular	Budgeted	Actual
Mean	3417.86	3281
S.D.	472.10	718.74
C.V.	13.81 %	21.91 %
Correlation	0.7500	

Source: Appendix -3

The above table shows that the coefficient of variation is higher in actual interest expenses than the budgeted interest expenses which show that the budgeted interest expenses are more consistent and homogeneous than actual interest expenses. A greater coefficient of variation is said to be more heterogeneous. Here, Nepal SBI Bank's actual interest expenses are the nature of more variability than budgeted interest expenses. Calculated correlation coefficient shows positive correlation coefficient between budgeted interest expenses and actual interest expenses.

4.1.4 Analysis of Interest Income:

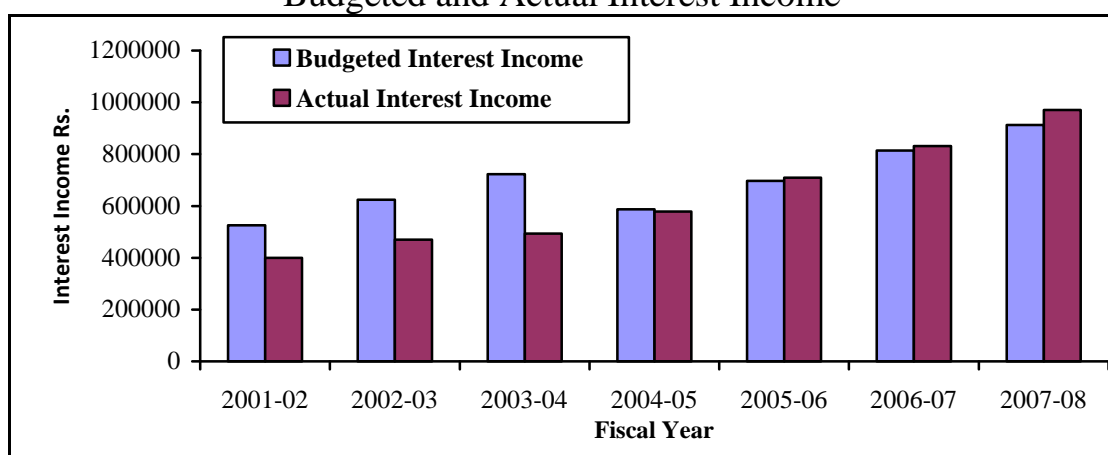
The following table presents the budgeted and actual interest income from the fiscal year 2001-02 to 2007-08.

Table No: 4
Budgeted and Actual Interest Income

Year	Budgeted Interest Income	Actual Interest Income	Achievement
2001-02	525293	399631	76.08
2002-03	623722	469740	75.31
2003-04	722861	493598	68.28
2004-05	586858	578372	98.55
2005-06	697104	708718	101.67
2006-07	813458	831116	102.17
2007-08	913002	970512	106.30

Rs. (000)

Chart No: 4
Budgeted and Actual Interest Income



Sources: Table No. 4

The above table shows that the budgeted interest income is in fluctuating trend and actual interest income is in increasing trend up to fiscal year 2007-08. In the fiscal year 2007-08 the actual interest income is 106.30% of the budgeted interest income that is the best result and in the FY 2003-04 only 68.28% of the budgeted interest income which was poorest result among the seven years period. The bank is able to achieve more than 100% of the targeted interest income in the year 2005-06-, 2006-07, and 2007-08 which is very fruitful for the organization. And actual interest income for the year 2001-02, 2002-03 and 2003-04 are found to be very less which shows that bank had failed to reach even 80% achievement in these year.

Summarized results

Particular	Budgeted	Actual
Mean	6974.86	6359.43
S.D.	1241.39	1936.03
C.V.	17.80 %	30.44 %
Correlation	0.8941	

Source: Appendix -4

The above table shows that the coefficient of variation is higher in actual interest income than the budgeted interest income which shows that the budgeted interest incomes are more consistent and homogeneous than actual interest income. A greater coefficient of variation is said to be more heterogeneous. Here, Nepal SBI Bank's

actual interest incomes are the nature of more variability than budgeted interest income. Calculated correlation coefficient shows positive correlation coefficient between budgeted interest income and actual interest income.

4.1.5 Analysis of Operating and Other Expenses:

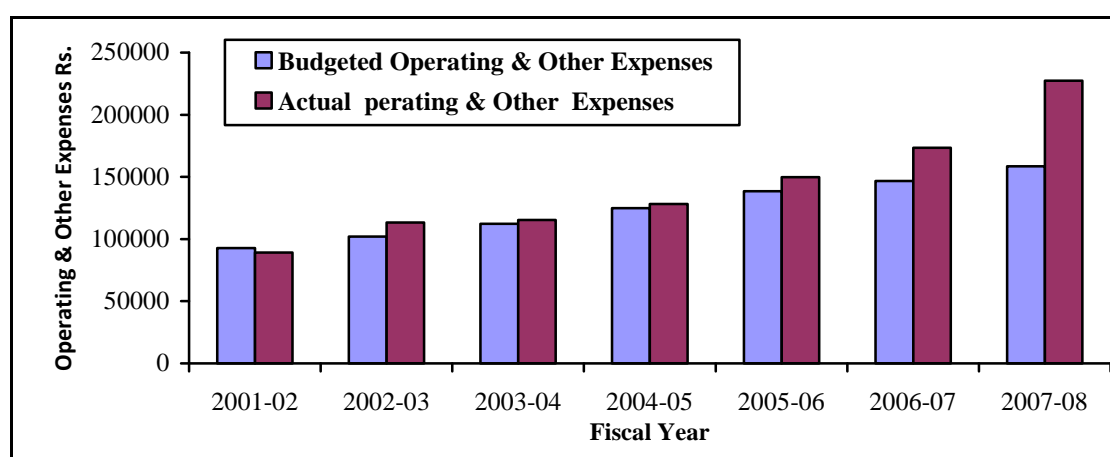
The following table presents the budgeted and actual operating & other expenses from the fiscal year 2001-02 to 2007-08.

Table No: 5
Budgeted and Actual Operating & Other Expenses

Year	Budgeted Operating & Other Expenses	Actual Operating & Other Expenses	Variance	Variance %
2001-02	92768	89050	3718	4.01
2002-03	102005	113189	(11184)	(10.96)
2003-04	112165	115261	(3096)	(2.76)
2004-05	124848	128211	(3363)	(2.69)
2005-06	138456	149753	(11297)	(8.16)
2006-07	146763	173344	(26581)	(18.11)
2007-08	158504	227270	(68766)	(43.38)

Chart No: 5

Chart showing Budgeted and Actual operating & other expenses



Sources: Table No: 5

The above table shows that both budgeted and actual operating & other expenses are in increasing trend up to fiscal year 2007-08. In the fiscal year 2003-04 actual

operating & other expenses is 4.01% of the budgeted operating & other expenses that is the best result and in the FY 2007-08 negative 43.38% of the budgeted operating & other expenses achievement which was poorest result among the seven years period.

Summarized Results

Particular	Budgeted	Actual
Mean	1250.86	1423.14
S.D.	223.91	428.40
C.V.	17.90 %	30.10 %
Correlation	0.9465	

Source: Appendix - 5

The above table shows that the coefficient of variation is higher in actual operating & other expenses than the budgeted operating & other expenses which show that the budgeted operating & other expenses are more consistent and homogeneous than actual operating & other expenses. A greater coefficient of variation is said to be more heterogeneous. Here, Nepal SBI Bank's actual operating & other expenses are the nature of more variability than budgeted operating & other expenses. Calculated correlation coefficient shows positive correlation coefficient between budgeted operating & other expenses and actual operating & other expenses.

4.1.6 Analysis of Interest Income:

The following table presents the budgeted and actual other income from the fiscal year 2001-02 to 2007-08.

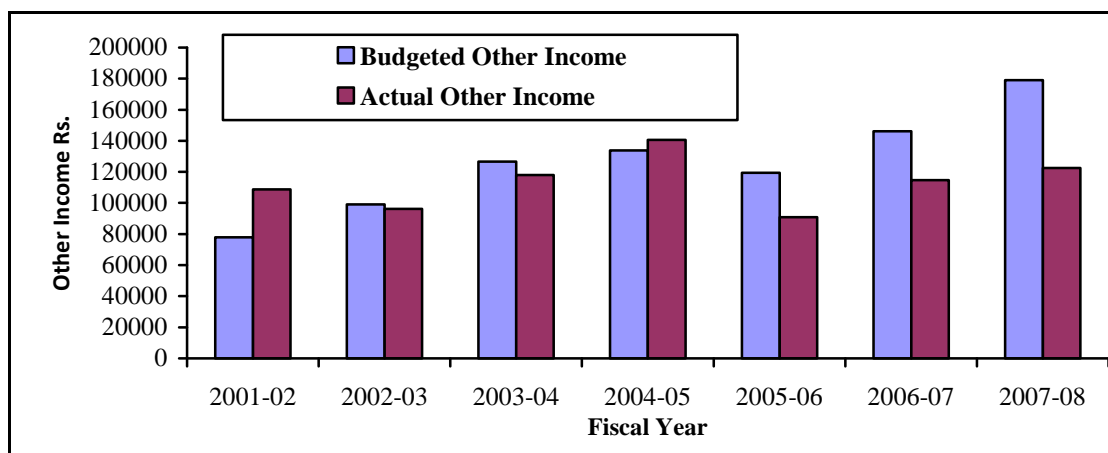
Table No: 6
Budgeted and Actual Other Income

Year	Budgeted Other Income	Actual Other Income	Achievement
2001-02	77839	108742	139.70
2002-03	99174	96167	96.97
2003-04	126586	118008	93.22
2004-05	133827	140616	105.07
2005-06	119372	90950	76.19
2006-07	146108	114656	78.47
2007-08	178983	122464	68.42

Rs. (000)

Chart No: 6

Chart showing Budgeted and Actual Other Income



Sources: Table No. 6

The above table shows that the budgeted and actual other income actual other income is in fluctuating trend up to fiscal year 2007-08. In the fiscal year 2001-02 the actual other income is 139.70% of the budgeted other income that is the best result and in the FY 2007-08 only 68.42% of the budgeted other income which was poorest result among the seven years period. And actual other income for the year 2005-06, 2006-07 and 2007-08 are found to be very less which shows that bank had failed to reach even 80% achievement in these year.

Summarized Results

Particular	Budgeted	Actual
Mean	1259.86	1131.00
S.D.	301.41	154.21
C.V.	23.92 %	13.63 %
Correlation	0.4791	

Source: Appendix -6

The above table shows that the coefficient of variation is lower in actual other income than the budgeted other income which shows that the actual other income have more consistency than budgeted other income. A greater coefficient of variation is said to be more heterogeneous. Here, Nepal SBI Bank's actual other income are the nature of less variability than budgeted other income. Calculated correlation coefficient shows

positive correlation coefficient between budgeted other income and actual other income.

4.2 Trend Analysis:

Trend analysis reflects the dynamic place of the movement of phenomenon over a period of time. It helps to forecast so that proper strategy can be implemented to bring some changes in the trend values of succeeding years. It is done simply to know how much it would be in the next year if going on as it is in the past year. The trend analysis of following variables is as under:

4.2.1 Trend Analysis of Deposits:

Trend analysis of deposits are made as it play specific role in providing loans and advances and investment volume of deposit is of higher important if they are profit utilization of deposits.

Table No: 7
Trend Analysis of Budgeted Deposits

Rs. (00000)

Year	Budgeted Deposits (Y)	X = Year-2004/05	X ²	XY	TV	Difference (Y – TV)
2001-02	74180	-3	9	(222540)	54644	19536
2002-03	64080	-2	4	(128160)	65367	(1287)
2003-04	61867	-1	1	(61867)	76089	(14222)
2004-05	68500	0	0	0	86812	(18312)
2005-06	96456	1	1	96456	97534	(1078)
2006-07	111456	2	4	222912	108257	3199
2007-08	131144	3	9	393432	118980	12164
n =7	$\sum Y = 607683$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 300233$		

Here,

Trend equation is, $Y_c = a + bx$

Now, $a = \frac{\sum Y}{n} = \frac{607683}{7} = 86811.86$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{300233}{28} = 10722.61$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 86811.86 + 10722.61X$$

Now total budgeted deposits for the year 2008-09 is calculated as follows:

X = 4 for the year 2008-09

$$\begin{aligned} y_c &= 86811.86 + 10722.61 \times 4 \\ &= 129702.30 \sim 129702 \end{aligned}$$

Thus the total budgeted deposits of Nepal SBI Bank Ltd. should be 129702 lakhs in coming year 2008-09 as according to trend analysis.

Budgeted deposits of Nepal SBI Bank Ltd. are increasing by Rs. 10722.61 lakhs in every year in average. The difference between trend value and the budgeted deposits highly in year 2001-02 by Rs. 19536 lakhs and less in year 2006-07 by Rs. 3199 lakhs. Budgeted value has exceeded the trend value in year 2001-02 by Rs. 19536 lakhs, in year 2006-07 by Rs.3199 lakhs and in year 2007-08 by Rs. 12164 lakhs.

Table No: 8
Trend Analysis of Actual Deposits

Rs. (00000)						
Year	Actual Deposits (Y)	X = Year-2004/05	X ²	XY	TV	Difference (Y – TV)
2001-02	55724	-3	9	(167172)	50790	4934
2002-03	65228	-2	4	(130456)	64389	839
2003-04	71983	-1	1	(71983)	77988	(6005)
2004-05	86547	0	0	0	91587	(5040)
2005-06	110020	1	1	110020	105186	4834
2006-07	114452	2	4	228904	118785	(4333)
2007-08	137153	3	9	411459	132384	4769
n = 7	$\sum Y = 641107$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 380772$		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{641107}{7} = 91586.71$$

$$\text{And, } b = \frac{\sum XY}{\sum X^2} = \frac{380772}{28} = 13599$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 91586.71 + 13599X$$

Now total actual deposits for the year 2008-09 are calculated as follows:

$$X = 4 \text{ for the year 2008-09}$$

$$\begin{aligned} y_c &= 91586.71 + 13599 \times 4 \\ &= 145982.71 \sim 145983 \end{aligned}$$

Thus the total actual deposits of Nepal SBI Bank Ltd. should be 145983 lakhs in coming year 2008-09 as according to trend analysis.

Actual deposits of Nepal SBI Bank Ltd. are increasing by Rs.13599 lakhs in every year in average. The difference between trend value and the actual deposits highly in year 2001-02 by Rs. 4934 lakhs and less in year 2002-03 by Rs. 839 lakhs. Actual value has exceeded the trend value in year 2001-02 by Rs. 4934 lakhs, in year 2002-03 by Rs. 839 lakhs, in year 2005-06 by Rs. 4834 lakhs and in year 2007-08 by Rs. 4769 lakhs.

4.2.2 Trend Analysis of Loans and Advances:

Table No: 9
Trend Analysis of Budgeted Loans and Advances

Rs. (00000)						
Year	Budgeted Loans and Advance(Y)	X = Year-2004/05	X ²	XY	TV	Difference (Y – TV)
2001-02	54845	-3	9	(164535)	40531	14314
2002-03	45142	-2	4	(90284)	50908	(5766)
2003-04	55958	-1	1	(55958)	61286	(5328)
2004-05	60900	0	0	0	71663	(10763)
2005-06	79315	1	1	79315	82041	(2726)
2006-07	94415	2	4	188830	92418	1977
2007-08	111067	3	9	333201	102796	8271
n =7	$\sum Y = 501642$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 290569$		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum y}{n} = \frac{501642}{7} = 71663.14$$

$$\text{And, } b = \frac{\sum xy}{\sum x^2} = \frac{290569}{28} = 10377.46$$

Now substituting the value of 'a' and 'b'

$$\text{We have, } y_c = 71663.14 + 10377.46X$$

Now total budgeted loan and advances for the year 2008-09 is calculated as follows:

$$X = 4 \text{ for the year 2008-09}$$

$$y_c = 71663.14 + 10377.46 \times 4 \\ = 113172.98 \sim 113173$$

Thus the total budgeted loans and advances of Nepal SBI Bank Ltd. should be 113173 lakhs in coming year 2008-09 as according to trend analysis.

Budgeted loan and advance of Nepal SBI Bank Ltd. is increasing by Rs. 10377.46 lakhs in every year in average. The difference between trend value and the budgeted loans and advances highly in year 2001-02 by Rs. 14314 lakhs and less in year 2006-07 by Rs. 1977 lakhs. Budgeted value has exceeded the trend value in year 2001-02 by Rs. 14314 lakhs, in year 2006-07 by Rs.1977 lakhs and in year 2007-08 by Rs. 8271 lakhs.

Table No: 10
Trend Analysis of Actual Loans and Advances

(Rs.00000)

Year	Actual Loans and Advances (Y)	X= Year-2004/05	x ²	XY	TV	Difference (Y – TV)
2001-02	42992	-3	9	(128976)	31991	11001
2002-03	44687	-2	4	(89374)	44816	(129)
2003-04	51436	-1	1	(51436)	57641	(6205)
2004-05	62138	0	0	0	70466	(8328)
2005-06	76267	1	1	76267	83291	(7024)
2006-07	94604	2	4	189208	96115	(1511)
2007-08	121136	3	9	363408	108940	12196
n =7	$\sum Y = 493260$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 359097$		

Here, Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{493260}{7} = 70465.71$$

$$\text{And, } b = \frac{\sum XY}{\sum X^2} = \frac{359097}{28} = 12824.89$$

Now substituting the value of 'a' and 'b'

We have

$$Y_c = 70465.71 + 12824.89X$$

Now total actual loans and advances for the year 2008-09 is calculated as follows:

X = 4 for the year 2008-09

$$Y_c = 70465.71 + 12824.89 \times 4$$

$$= 121765.27 \sim 121765$$

Thus the total loans and advances of Nepal SBI Bank Ltd. Should be 121765 lakhs in coming year 2008-09 as according to trend analysis.

Actual loans and advances of Nepal SBI Bank Ltd. is increasing by Rs. 12824.89 lakhs in every year in average. The difference between trend value and the actual loans and advances highly in year 2007-08 by Rs. 12196 lakhs and less in year 2001-02 by Rs. 11001 lakhs. Actual value has exceeded the trend value in year 2001-02 by Rs. 11001 lakhs and in year 2007-08 by Rs. 12196 lakhs.

4.2.3 Trend Analysis of Interest Expenses:

Table No: 11
Trend Analysis of Budgeted Interest Expenses

Rs. (000)						
Year	Budgeted Interest Expenses (Y)	X = Year -2004/05	X ²	XY	Trend Value (TV)	Difference (Y - TV)
2001-02	303485	-3	9	(910455)	299749	3736
2002-03	333838	-2	4	(667676)	313763	20075
2003-04	367227	-1	1	(367227)	327777	39450
2004-05	276343	0	0	0	341791	(65448)
2005-06	309056	1	1	309056	355805	(46749)
2006-07	379074	2	4	758148	369819	9255
2007-08	423516	3	9	1270548	383833	39683
n =7	$\sum Y = 2392539$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 392394$		

Here, Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{2392539}{7} = 341791.28$$

$$\text{and, } b = \frac{\sum XY}{\sum X^2} = \frac{392394}{28} = 14014.07$$

Now substituting the value of 'a' and 'b'

$$\text{We have, } y_c = 341791.28 + 14014.07X$$

Now, budgeted interest expenses for the year 2008-09 are calculated as follows:

$$X = 4 \text{ for the year 2008-09}$$

$$y_c = 341791.28 + 14014.07 \times 4$$

$$= 397847.56 \sim 397848$$

Thus the budgeted interest expenses of Nepal SBI Bank Ltd. should be 397848 in coming year 2008-09 as according to trend analysis.

Budgeted interest expenses of Nepal SBI Bank Ltd. are increasing by Rs. 14014.07 thousand in every year in average. The difference between trend value and the budgeted interest expenses highly in year 2007-08 by Rs. 39683 thousand and less in year 2001-02 by Rs. 3736 thousand. Budgeted value has exceeded the trend value in year 2001-02 by Rs. 3736 thousand, in year 2002-03 by Rs. 20075 thousand, in year 2003-04 by Rs. 39450 thousand, in year 2006-07 by Rs.9255 and in year 2007-08 by Rs. 39683 thousand.

Table No: 12
Trend Analysis of Actual Interest Expenses

Rs. (000)						
Year	Actual Interest Expenses (Y)	X = Year – 2004/05	X ²	XY	Trend Value (TV)	Difference (Y – TV)
2001-02	288580	-3	9	(865740)	240377	48203
2002-03	291820	-2	4	(583640)	269618	22202
2003-04	255919	-1	1	(255919)	298859	(42940)
2004-05	258430	0	0	0	328100	(69670)
2005-06	334770	1	1	334770	357340	(22570)
2006-07	412261	2	4	824522	386581	25680
2007-08	454917	3	9	1364751	415822	39095
n =7	$\sum Y = 2296697$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 818744$		

Here, Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{2296697}{7} = 328099.57$$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{818744}{28} = 29240.85$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 328099.57 + 29240.85X$$

Now actual interest expenses for the year 2008-09 is calculated as follows:

$$X = 4 \text{ for the year 2008-09}$$

$$\begin{aligned} y_c &= 328099.57 + 29240.85 \times 4 \\ &= 445062.97 \sim 445063 \end{aligned}$$

Thus the actual interest expenses of Nepal SBI Bank Ltd. should be 445063 in coming year 2008-09 as according to trend analysis.

Actual interest expenses of Nepal SBI Bank Ltd. are increasing by Rs. 29240.85 thousand in every year in average. The difference between trend value and the actual interest expenses highly in year 2001-02 by Rs. 48203 thousand and less in year 2002-03 by Rs. 22202 thousand. Actual value has exceeded the trend value in year 2001-02 by Rs. 48203 thousand, in year 2002-03 by Rs. 22202 thousand, in year 2006-07 by Rs. 25680 and in year 2007-08 by Rs. 39095 thousand.

4.2.4 Trend Analysis of Interest Income:

Table No: 13
Trend Analysis of Budgeted Interest Income

Rs. (000)						
Year	Budgeted Income (Y)	X = Year-2004/05	X ²	XY	Trend Value (TV)	Difference (Y – TV)
2001-02	525293	-3	9	(1575879)	534952	(9659)
2002-03	623722	-2	4	(1247444)	589125	34597
2003-04	722861	-1	1	(722861)	643298	79563
2004-05	586858	0	0	0	697471	(110613)
2005-06	697104	1	1	697104	751644	(54540)
2006-07	813458	2	4	1626916	805817	7641
2007-08	913002	3	9	2739006	859990	53012
n =7	$\sum Y = 4882298$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 1516842$		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{4882298}{7} = 697471.14$$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{1516842}{28} = 54172.93$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 697471.14 + 54172.93X$$

Now total budgeted interest income for the year 2008-09 is calculated as follows:

$X = 4$ for the year 2008-09

$$\begin{aligned} y_c &= 697471.14 + 54172.93 \times 4 \\ &= 914162.86 \sim 914163 \end{aligned}$$

Thus the total budgeted interest income of Nepal SBI Bank Ltd. should be 914163 in coming year 2008-09 as according to trend analysis.

Budgeted interest income of Nepal SBI Bank Ltd. is increasing by Rs. 54172.93 thousand in every year in average. The difference between trend value and the budgeted interest income highly in year 2003-04 by Rs. 79563 thousand and less in year 2006-07 by Rs. 7641 thousand. Budgeted value has exceeded the trend value in year 2002-03 by Rs. 34597 thousand, in year 2003-04 by Rs.79563 thousand, in year 2006-07 by Rs. 7641 thousand and in year 2007-08 by Rs. 53012 thousand.

Table No: 14
Trend Analysis of Actual Interest Income

Rs. (000)						
Year	Actual Income (Y)	X = Year – 2004/05	X ²	XY	TV	Difference (Y – TV)
2001-02	399631	-3	9	(1198893)	351972	47659
2002-03	469740	-2	4	(939480)	446633	23107
2003-04	493598	-1	1	(493598)	541294	(47696)
2004-05	578372	0	0	0	635955	(57583)
2005-06	708718	1	1	708718	730617	(21899)
2006-07	831116	2	4	1662232	825278	5838
2007-08	970512	3	9	2911536	919939	50573
n = 7	$\sum Y = 4451687$	$\sum X = 0$	$\sum X^2 = 28$	$\sum XY = 2650515$		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{4451687}{7} = 635955.28$$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{2650515}{28} = 94661.25$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 635955.28 + 94661.25X$$

Now total actual interest income for the year 2008-09 is calculated as follows:

$X = 4$ for the year 2008-09

$$\begin{aligned} y_c &= 635955.28 + 94661.25 \times 4 \\ &= 1014600.28 \sim 1014600 \end{aligned}$$

Thus the total actual interest income of Nepal SBI Bank Ltd. should be 1014600 in coming year 2008-09 as according to trend analysis.

Actual interest income of Nepal SBI Bank Ltd. is increasing by Rs. 94661.25 thousand in every year in average. The difference between trend value and the actual interest income highly in year 2007-08 by Rs. 50573 thousand and less in year 2006-07 by Rs. 5838 thousand. Actual value has exceeded the trend value in year 2001-02 by Rs. 47659 thousand, in year 2002-03 by Rs.23107 thousand, in year 2006-07 by Rs. 5838 thousand and in year 2007-08 by Rs. 50573 thousand.

4.2.5 Trend Analysis of Operating and Other Expenses:

Table No: 15
Trend Analysis of Budgeted Operating & Other Expenses

Year	Budgeted Operating & Oth. Exp. (Y)	X = Year – 004/05	X ²	XY	Trend Value (TV)	Difference (Y – TV)
2001-02	92768	-3	9	(278304)	91534	1234
2002-03	102005	-2	4	(204010)	102714	(709)
2003-04	112165	-1	1	(112165)	113893	(1728)
2004-05	124848	0	0	0	125073	(225)
2005-06	138456	1	1	138456	136252	2204
2006-07	146763	2	4	293526	147432	(669)
2007-08	158504	3	9	475512	158611	(107)
n =7	∑Y X875509	∑X X0	∑X ² X28	∑XY X313024		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{875509}{7} = 125072.71$$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{313024}{28} = 11179.42$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 125072.71 + 11179.42X$$

Now, budgeted operating & other expenses for the year 2008-09 are calculated as follows:

X = 4 for the year 2008-09

$$y_c = 125072.71 + 11179.42 \times 4 \\ = 169790.39 \sim 169790$$

Thus the budgeted operating & other expenses of Nepal SBI Bank Ltd. should be 169790 in coming year 2008-09 as according to trend analysis.

Budgeted operating & other expenses of Nepal SBI Bank Ltd. is increasing by Rs. 11179.42 thousand in every year in average. The difference between trend value and the budgeted operating & other expenses highly in year 2005-06 by Rs. 2204 thousand and less in year 2001-02 by Rs. 1234 thousand. Budgeted value has

exceeded the trend value in year 2001-02 by Rs. 1234 thousand and in year 2005-06 by Rs. 2204 thousand.

Table No: 16
Trend Analysis of Actual Operating and Other Expenses

Rs.000

Year	Actual Operating & Other Exp. (Y)	X = Year-2004/05	X ²	XY	TV	Difference (Y – TV)
2001-02	89050	-3	9	(267150)	81283	7767
2002-03	113189	-2	4	(226378)	101621	11568
2003-04	115261	-1	1	(115261)	121959	(6698)
2004-05	128211	0	0	0	142297	(14086)
2005-06	149753	1	1	149753	162635	(12882)
2006-07	173344	2	4	346688	182973	(9629)
2007-08	227270	3	9	681810	203311	23959
n =7	∑Y X996078	∑X X0	∑X ² X28	∑XY X69462		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{996078}{7} = 142296.85$$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{69462}{28} = 20337.92$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 142296.85 + 20337.92X$$

Now actual operating & other expenses for the year 2008-09 is calculated as follows:

X = 4 for the year 2008-09

$$\begin{aligned} y_c &= 142296.85 + 20337.92 \times 4 \\ &= 223648.53 \sim 223649 \end{aligned}$$

Thus the actual operating & other expenses of Nepal SBI Bank Ltd. should be 223649 in coming year 2008-09 as according to trend analysis.

Actual operating & other expenses of Nepal SBI Bank Ltd. is increasing by Rs. 20337.92 thousand in every year in average. The difference between trend value and the actual operating & other expenses highly in year 2007-08 by Rs. 23959 thousand and less in year 2001-02 by Rs. 7767 thousand. Actual value has exceeded the trend value in year 2001-02 by Rs. 7767 thousand, in year 2002-03 by Rs. 11568 thousand and in year 2007-08 by Rs. 23959 thousand.

4.2.6 Trend Analysis of Other Income:

Table No: 17
Trend Analysis of Budgeted Other Income

Year	Budgeted Other Income (Y)	X = Year - 2004/05	X^2	XY	TV	Difference (Y – TV)
2001-02	77839	-3	9	(233517)	84189	(6350)
2002-03	99174	-2	4	(198348)	98121	1053
2003-04	126586	-1	1	(126586)	112053	14533
2004-05	133827	0	0	0	125984	7843
2005-06	119372	1	1	119372	139916	(20544)
2006-07	146108	2	4	292216	153847	(7739)
2007-08	178983	3	9	536949	167779	11204
n = 7	ϕY X881889	ϕX X0	ϕX^2 X28	ϕXY X390086		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\phi Y}{n} = \frac{881889}{7} = 125984.14$$

$$\text{and } b = \frac{\phi XY}{\phi X^2} = \frac{390086}{28} = 13931.64$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 125984.14 + 13931.64X$$

Now total budgeted other income for the year 2008-09 is calculated as follows:

$X = 4$ for the year 2008-09

$$y_c = 125984.14 + 13931.64 \times 4$$

$$= 181710.7 \sim 181711$$

Thus the total budgeted other income of Nepal SBI Bank Ltd. should be 181711 in coming year 2008-09 as according to trend analysis.

Budgeted other income of Nepal SBI Bank Ltd. is increasing by Rs. 13931.64 thousand in every year in average. The difference between trend value and the budgeted other income highly in year 2003-04 by Rs. 14533 thousand and less in year 2002-03 by Rs. 1053 thousand. Budgeted value has exceeded the trend value in year 2002-03 by Rs. 1053 thousand, in year 2003-04 by Rs.14533 thousand, in year 2004-05 by Rs. 7843 thousand and in year 2007-08 by Rs. 11204 thousand.

Table No: 18
Trend Analysis of Actual Other Income

Year	Actual Other Income (Y)	X = Year – 2004/05	X ²	XY	TV	Difference (Y – TV)
2001-02	108742	-3	9	(326226)	107613	1129
2002-03	96167	-2	4	(192334)	109437	(13270)
2003-04	118008	-1	1	(118008)	111262	6746
2004-05	140616	0	0	0	113086	27530
2005-06	90950	1	1	90950	114911	(23961)
2006-07	114656	2	4	229312	116735	(2079)
2007-08	122464	3	9	367392	118560	3904
n =7	∑Y = 791603	∑X = 0	∑X ² = 28	∑XY = 51086		

Here,

Trend equation is, $y_c = a + bx$

$$\text{Now, } a = \frac{\sum Y}{n} = \frac{791603}{7} = 113086.14$$

$$\text{and } b = \frac{\sum XY}{\sum X^2} = \frac{51086}{28} = 1824.5$$

Now substituting the value of 'a' and 'b'

We have

$$y_c = 113086.14 + 1824.5X$$

Now total actual other income for the year 2008-09 is calculated as follows:

$$X = 4 \text{ for the year 2008-09}$$

$$y_c = 113086.14 + 1824.5 \times 4$$

$$= 120384.14 \sim 120384$$

Thus the total actual other income of Nepal SBI Bank Ltd. should be 120384 in coming year 2008-09 as according to trend analysis.

Actual other income of Nepal SBI Bank Ltd. is increasing by Rs. 1824.5 thousand in every year in average. The difference between trend value and the actual other income highly in year 2004-05 by Rs. 27530 thousand and less in year 2001-02 by Rs. 1129 thousand. Actual value has exceeded the trend value in year 2001-02 by Rs. 1129 thousand, in year 2003-04 by Rs. 6746 thousand, in year 2004-05 by Rs. 27530 thousand and in year 2007-08 by Rs. 3904 thousand.

4.3 Correlation Analysis:

Correlation coefficient shows the significance relationship between two variables within certain time period. The Carl Pearson's correlation co-efficient

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2} \sqrt{n\sum Y^2 - (\sum Y)^2}}$$

4.3.1 Correlation coefficient between Deposits and Interest Expenses

Table No: 19
Correlation coefficient between Budgeted Deposits & Budgeted Interest Expenses

Rs. (00000000)

Year	Budgeted Deposits (x)	Budgeted Interest Expenses (y)	X ²	Y ²	XY
2001-02	74.180	3.03485	5502.672	9.21031	225.1252
2002-03	64.080	3.33838	4106.246	11.14478	213.9234
2003-04	61.867	3.67227	3827.525	13.48557	227.1923
2004-05	68.500	2.76343	4692.250	7.63655	189.2950
2005-06	96.456	3.09056	9303.760	9.55156	298.1031
2006-07	111.456	3.79074	12422.440	14.36971	422.5007
2007-08	131.144	4.23516	17198.749	17.93658	555.4158
n = 7	$\sum X$ 607.863	$\sum Y$ 23.92539	$\sum X^2$ 57053.642	$\sum Y^2$ 83.33506	$\sum XY$ 2131.5555

$$r = \frac{n\sum XY - \sum X \sum Y}{\sqrt{n\sum X^2 - (\sum X)^2} \sqrt{n\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{7 \times 2131.5555 - (607.863)(23.92539)}{\sqrt{7 \times 57053.642 - (607.863)^2} \sqrt{7 \times 83.33506 - (23.92539)^2}}$$

$$= \frac{14920.89 - 14539.05}{\sqrt{399375.49 - 369278.63} \sqrt{583.35 - 572.42}}$$

$$= \frac{381.84}{173.48} = 3.31$$

$$= \frac{381.84}{574.22}$$

X0.66497

The correlation coefficient of the variables as budgeted deposits and budgeted interest expenses is 0.66497 which shows that there is a positive relation in between loans & advances and interest income.

Now, calculation of Probable Error,

$$P.E \text{ X0.6745 } \left| \frac{1Zr^2}{\sqrt{n}} \right.$$

$$\text{X0.6745 } \left| \frac{1Z(0.66497)^2}{\sqrt{7}} \right.$$

$$\text{X0.6745 } \left| \frac{0.55781}{2.64575} \right.$$

$$\text{X0.6745 } \left| 0.2108 \right.$$

$$\text{X0.14220}$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between budgeted deposits and budgeted interest expenses.

Table No: 20
Correlation coefficient between Actual Deposits and
Actual Interest expenses

Rs. (00000000)

Year	Actual Deposits (x)	Actual Interest Expenses (y)	X ²	Y ²	XY
2001-02	55.724	2.88580	3105.16	8.32784	160.8083
2002-03	65.228	2.91820	4254.69	8.51589	190.3483
2003-04	71.983	2.55919	5181.55	6.54945	184.2182
2004-05	86.547	2.58430	7490.38	6.67861	223.6634
2005-06	110.020	3.34770	12104.40	11.20710	368.3140
2006-07	114.452	4.12261	13099.26	16.99591	471.8410
2007-08	137.153	4.54917	18810.95	20.69495	623.9323
n = 7	∑X X 641.107	∑Y X 22.96697	∑X ² X 64046.39	∑Y ² X 78.96975	∑XY X 2223.1255

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{n}}{\sqrt{\sum X^2 - \frac{(\sum X)^2}{n}} \sqrt{\sum Y^2 - \frac{(\sum Y)^2}{n}}}$$

$$= \frac{7 | 2223.125 - \frac{(641.107)(22.96697)}{7}}{\sqrt{7 | 64046.39 - \frac{(641.107)^2}{7}} \sqrt{7 | 78.96975 - \frac{(22.96697)^2}{7}}}$$

$$= \frac{15561.88 - 14724.29}{\sqrt{448324.73 - 14724.29} \sqrt{552.79 - 527.48}}$$

$$= \frac{837.59}{658.48 | 5.03}$$

$$= \frac{837.59}{3312.15}$$

$$= 0.25288$$

The correlation coefficient of the variables as actual deposits and actual interest expenses is 0.25288 which shows that there is a positive relation in between actual deposits and actual interest expenses

Now, calculation of Probable Error,

$$P.E = 0.6745 | \frac{1 Z r^2}{\sqrt{n}}$$

$$= 0.6745 | \frac{1 Z (0.25288)^2}{\sqrt{7}}$$

$$= 0.6745 | \frac{1 Z 0.063948}{2.64575}$$

$$= 0.6745 | 0.35379$$

$$= 0.23863$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between actual deposits and actual interest expenses.

4.3.2 Correlation coefficient between Loans & Advances and Interest Income

Table No: 21
Correlation coefficient between Budgeted Loans & Advances and Budgeted Interest Income

Rs. (00000000)

Year	Budgeted Loans & Advances (x)	Budgeted Interest income (y)	X ²	Y ²	XY
2001-02	54.845	5.25293	3007.974	27.59327	288.0969
2002-03	45.142	6.23722	2037.800	38.90291	281.5606
2003-04	55.958	7.22861	3131.298	52.25280	404.4986
2004-05	60.900	5.86858	3708.810	34.44023	357.3965
2005-06	79.315	6.97104	6290.869	48.59540	552.9080
2006-07	94.415	8.13458	8914.192	66.17139	768.0264
2007-08	111.067	9.13002	12335.878	83.35727	1014.0439
n = 7	∑X = 501.642	∑Y = 48.82298	∑X ² = 39426.821	∑Y ² = 351.31627	∑XY = 3666.5309

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{7 \times 3666.5309 - (501.642)(48.82298)}{\sqrt{7 \times 39426.821 - (501.642)^2} \sqrt{7 \times 351.31627 - (48.82298)^2}}$$

$$= \frac{25665.72 - 24491.66}{\sqrt{275987.75 - 251644.70} \sqrt{2459.19 - 2383.68}}$$

$$= \frac{1174.06}{156.02 \times 8.69}$$

$$= \frac{1174.06}{1355.81}$$

$$= 0.86595$$

The correlation coefficient of the variables as budgeted loans & advances and budgeted interest income is 0.86595 which shows that there is a positive relation in between loans & advances and interest income.

Now, calculation of Probable Error,

$$P.E \times 0.6745 \left| \frac{1Zr^2}{\sqrt{n}} \right.$$

$$\times 0.6745 \left| \frac{1Z(0.86595)^2}{\sqrt{7}} \right.$$

$$\times 0.6745 \left| \frac{1Z0.749869}{2.64575} \right.$$

$$\times 0.6745 \left| 0.0945406 \right.$$

$$\times 0.063767$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between budgeted loans & advances and budgeted interest income.

Table No: 22
Correlation coefficient between Actual Loans
& Advance and Actual Interest Income

Rs. (00000000)

Year	Actual Loans & Advances (x)	Actual Interest Income (y)	X ²	Y ²	xy
2001-02	42.992	3.99631	1848.31206	15.97049	171.80936
2002-03	44.687	4.69740	1996.92797	22.06557	209.91271
2003-04	51.436	4.93598	2645.66210	24.36390	253.88707
2004-05	62.138	5.78372	3861.13104	33.45142	359.38879
2005-06	76.267	7.08718	5816.65529	50.22812	540.51796
2006-07	94.604	8.31116	8949.91682	69.07538	786.26898
2007-08	121.136	9.70512	14673.93050	94.18935	1175.63942
n =7	$\sum X$ 493.26	$\sum Y$ 44.51687	$\sum X^2$ 39792.53878	$\sum Y^2$ 309.34423	$\sum XY$ 3498.02429

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{n}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{n}\right) \left(\sum Y^2 - \frac{(\sum Y)^2}{n}\right)}}$$

$$= \frac{7 \left| 3498.02429 - \frac{(493.26)(44.51687)}{7} \right|}{\sqrt{7 \left| 39792.53578 - \frac{(493.26)^2}{7} \right| \left| 309.344423 - \frac{(44.51687)^2}{7} \right|}}$$

$$X \frac{24486.17 Z 21958.39}{\sqrt{278547.75 Z 243305.43} \sqrt{2165.41 Z 1981.75}}$$

$$X \frac{2527.78}{187.73 | 13.55}$$

$$X \frac{2527.78}{2544.12}$$

$$X 0.993577$$

The correlation coefficient of the variables as actual loans & advances and actual interest income is 0.993577 which shows that there is a positive relation in between loans & advances and interest income

Now, calculation of Probable Error:

$$P.E X 0.6745 | \frac{1 Z r^2}{\sqrt{n}}$$

$$X 0.6745 | \frac{1 Z (0.993577)^2}{\sqrt{7}}$$

$$X 0.6745 | \frac{0.01280}{2.64575}$$

$$X 0.003263$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between actual loans & advances and interest income.

4.3.3 Correlation coefficient between Interest Income and Interest Expenses

Table No: 23
Correlation coefficient between Budgeted Interest Incomes
& Budgeted Interest Expenses

Rs. (00000000)

Year	Budgeted Interest Income (x)	Budgeted Interest Expenses (y)	X ²	Y ²	XY
2001-02	5.25293	3.03485	27.59327	9.21031	15.94185
2002-03	6.23722	3.33838	38.90291	11.14478	20.82221
2003-04	7.22861	3.67227	52.25280	13.48557	26.54541
2004-05	5.86858	2.76343	34.44023	7.63655	16.21741
2005-06	6.97104	3.09056	48.59540	9.55156	21.54442
2006-07	8.13458	3.79074	66.17139	14.36971	30.83608
2007-08	9.13002	4.23516	83.35727	17.93658	38.66709
n =7	$\sum X$ 48.82298	$\sum Y$ 23.92539	$\sum X^2$ 351.31327	$\sum Y^2$ 83.33506	$\sum XY$ 170.57447

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{7 \times 170.57447 - (48.82298)(23.92539)}{\sqrt{7 \times 351.31327 - (48.82298)^2} \sqrt{7 \times 83.33506 - (23.92539)^2}}$$

$$= \frac{1194.02 - 1168.11}{\sqrt{2458.49 - 2383.68} \sqrt{583.35 - 572.42}}$$

$$= \frac{25.91}{8.65 \times 10.93}$$

$$= \frac{25.91}{94.54}$$

$$= 0.27406$$

The correlation coefficient of the variables as budgeted interest income and budgeted interest expenses is 0.27406 which shows that there is a positive relation in between loans & advances and interest income.

Now calculation of Probable Error,

$$P.E \times 0.6745 \left| \frac{1 Z r^2}{\sqrt{n}} \right.$$

$$\times 0.6745 \left| \frac{1 Z (0.27406)^2}{\sqrt{7}} \right.$$

$$\times 0.6745 \left| \frac{0.92489}{2.64575} \right.$$

$$\times 0.6745 \left| 0.349575 \right.$$

$$\times 0.23579$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between budgeted interest income and budgeted interest expenses.

Table No: 24
Correlation coefficient between Actual Interest Income
and Actual Interest Expenses

Rs. (00000000)

Year	Actual Interest Income (x)	Actual Interest Expenses (y)	X ²	Y ²	XY
2001-02	3.99631	2.88580	15.97049	8.32784	11.53255
2002-03	4.69740	2.91820	22.06557	8.51589	13.70795
2003-04	4.93598	2.55919	24.36390	6.54945	12.63211
2004-05	5.78372	2.58430	33.45142	6.67861	14.94687
2005-06	7.08718	3.34770	50.22812	11.20710	23.72575
2006-07	8.31116	4.12261	69.07538	16.99591	34.26367
2007-08	9.70512	4.54917	94.18935	20.69495	44.15024
n = 7	∑X X 44.51687	∑Y X 22.96697	∑X ² X 309.34424	∑Y ² X 78.96975	∑XY X 154.95914

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{n}}{\sqrt{\sum X^2 - \frac{(\sum X)^2}{n}} \sqrt{\sum Y^2 - \frac{(\sum Y)^2}{n}}}$$

$$= \frac{7 | 154.95914 - \frac{(44.51687)(22.96697)}{7}}{\sqrt{7 | 309.34423 - \frac{(44.51687)^2}{7}} \sqrt{7 | 78.96975 - \frac{(22.96697)^2}{7}}}$$

$$= \frac{1084.71 - 1022.42}{\sqrt{2165.41 - 1981.75} \sqrt{552.79 - 527.48}}$$

$$= \frac{62.29}{13.55 | 5.03}$$

$$= \frac{62.29}{68.16}$$

$$= 0.913879$$

The correlation coefficient of the variables as actual interest income and actual interest expenses is 0.913879 which shows that there is a positive relation in between actual interest income and actual interest expenses.

Now, calculation of Probable Error:

$$P.E = \pm 0.6745 \left| \frac{1 - r^2}{\sqrt{n}} \right|$$

$$= \pm 0.6745 \left| \frac{1 - (0.913879)^2}{\sqrt{7}} \right|$$

$$= \pm 0.6745 \left| \frac{1 - 0.83517}{2.64575} \right|$$

$$= \pm 0.6745 | 0.06230$$

$$= \pm 0.04202$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between actual interest income and actual interest expenses.

4.3.4 Correlation coefficient between Actual Interest Income and Actual Profit

Table No: 25
Correlation coefficient between Actual Interest
Income and Actual Profit

Year	Actual Interest Income (x)	Actual Profit (y)	X ²	Y ²	XY
2001-02	3.99631	0.40843	15.97050	0.16682	1.63221
2002-03	4.69740	0.48750	22.06557	0.23766	2.28998
2003-04	4.93598	0.60851	24.36390	0.37028	3.00359
2004-05	5.78372	0.57387	33.45142	0.32933	3.31910
2005-06	7.08718	1.17003	50.22812	1.36897	8.29221
2006-07	8.31116	2.54909	69.07538	6.49786	21.18590
2007-08	9.70512	2.47770	94.18935	6.13900	24.04638
n = 7	∑X = 44.51687	∑Y = 8.27513	∑X ² = 309.34424	∑Y ² = 15.10992	∑XY = 63.76937

Rs. (00000000)

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{n}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{n}\right) \left(\sum Y^2 - \frac{(\sum Y)^2}{n}\right)}}$$

$$= \frac{7 \times 63.76937 - \frac{(44.51687)(8.27513)}{7}}{\sqrt{\left(7 \times 309.34424 - \frac{(44.51687)^2}{7}\right) \left(7 \times 15.10992 - \frac{(8.27513)^2}{7}\right)}}$$

$$= \frac{446.39 - 53.68}{\sqrt{2165.41 - 281.75} \sqrt{105.77 - 98.48}}$$

$$= \frac{392.71}{\sqrt{2066.93} \sqrt{7.29}}$$

$$= \frac{392.71}{128.72 \times 2.70}$$

$$= 0.94226$$

The correlation coefficient of the variables as actual interest income and actual profit is 0.94226 which shows that there is a positive relation in between actual interest income and actual profit

Now, calculation of Probable Error:

$$P.E \times 0.6745 \mid \frac{1Zr^2}{\sqrt{n}}$$

$$\times 0.6745 \mid \frac{1Z(0.94226)^2}{\sqrt{7}}$$

$$\times 0.6745 \mid \frac{1Z0.88785}{2.64575}$$

$$\times 0.6745 \mid 0.04239$$

$$\times 0.02859$$

Probable error is not greater than correlation coefficient hence we can say that there is positive relation in between actual interest income and actual profit.

4.4 Regression Analysis

Regression analysis helps in estimation or prediction of unknown of one variable with the help of other known variable. As predication or estimation has been one of the major problems it can be of help to some extent. Mathematical measures of the average relationship between two variables of SBI Bank have been done to analyze their relationship.

4.4.1 Regression Analysis between Actual profit and Actual Loans & advances

SBI Bank is facing fluctuation situation of profit. However it faces this condition, profit is directly related with loans and advances in commercial banks loans and advances are increasing every year of SBI Bank. The following is the position of profit and loans & advertences in different years.

Table No: 26
Actual profit and Actual Loans & advances

Rs. (00000000)

Year	Loan & Advances (X)	Profit (Y)	X ²	Y ²	XY
2001-02	42.992	0.40843	1848.3121	0.1668	17.5592
2002-03	44.687	0.48750	1996.9280	0.2377	21.7849
2003-04	51.436	0.60851	2645.6621	0.3703	31.2993
2004-05	62.138	0.57387	3861.1310	0.3293	35.6591
2005-06	76.267	1.17003	5816.6553	1.3690	89.2347
2006-07	94.604	2.54909	8949.9168	6.4979	241.1541
2007-08	121.136	2.47770	14673.9305	6.1390	300.1387
n =7	$\phi X X$ 493.260	$\phi Y X$ 8.27513	$\phi X^2 X$ 39792.5358	$\phi Y^2 X$ 15.1099	$\phi XY X$ 736.8300

Then, we know

$$\text{Slope of regression line (b)} = \frac{n\phi XY Z(\phi X)(\phi Y)}{n\phi X^2 Z(\phi X)^2}$$

$$= \frac{7 \mid 736.83 Z(493.26)(8.27513)}{7 \mid 39792.5358 Z(493.26)^2}$$

$$= \frac{5157.81 Z4081.79}{278547.75 Z243305.43}$$

$$= \frac{1076.02}{35242.32}$$

$$= 0.030532$$

$$\text{Y-axis intercept (a)} = \frac{\phi Y}{n} - b \frac{\phi X}{n}$$

$$= \frac{8.27513}{7} - 0.030532 \times \frac{493.260}{7}$$

$$= 1.18216 - 2.15146$$

$$= -0.9693$$

$$\text{Standard Error of Y Estimate} = \sqrt{\frac{\phi Y^2 Z a \phi Y Z b \phi XY}{n Z 2}}$$

$$= \sqrt{\frac{15.1099 \Gamma 0.9693 \mid 8.27513 Z 0.030532 \mid 736.83}{7 Z 2}}$$

$$= \sqrt{\frac{15.1099 \Gamma 8.0210 Z 22.4969}{5}}$$

$$= 0.3561$$

Then, regression output constant (a) = -0.9693

Standard Error of Y Estimate = 0.3561

No. of observation (n) = 7

Degree of freedom (n-2) = 5

X-coefficient (b) = 0.030532

So, the regression equation is $Y = a + bx$ (i.e. $y = -0.9693 + 0.030532X$). The equation normally shows the amount of profit is any level of loans and advances of SBI Bank. The equation mentions whether there exist negative relationship or positive relationship. As X coefficient positive so there exist positive relationships. It means, amount of profit goes on increasing if the flow of loans and advances is increased. In every addition of Rs. 1 on loan and advance, profit increases by Rs. 0.030532. By the trend analysis of loans and advance, expected loans and advance for the year 2008-09 is Rs. 121.765 (00000000) profit will be $-0.9693 + 0.030532 \mid 121.765 (00000000) = \text{Rs. } 2.74842898(00000000)$.

In this way Bank can forecast the size of profit at any level of loans and advances forecast will be near to accuracy if any specific change either in the market or at bank policy does not take place computed figure or loans and advances are based on trend analysis.

4.4.2 Regression Analysis between Actual Loans & Advances and Actual Deposits

As loan is the prime source of profit, its volume has direct relationship with profit. In the same way, volume of loan is determined by the volume of deposit. As deposit is the main source to provide loan, relationship between, loans & advances and deposits are studied. The following is the volume of loans and advances and deposits of the bank from FY 2001/02 to 2007/08.

Table No: 27
Loans & Advances and Deposits

Rs. (00000000)

Year	Deposits (X)	Loan & Advances (Y)	X ²	Y ²	XY
2001-02	55.724	42.992	3105.16	1848.31	2395.69
2002-03	65.228	44.687	4254.69	1996.93	2914.84
2003-04	71.983	51.436	5181.55	2645.66	3702.52
2004-05	86.547	62.138	7490.38	3861.13	5377.86
2005-06	110.020	76.267	12104.40	5816.65	8390.89
2006-07	114.452	94.604	13099.26	8949.92	10827.62
2007-08	137.153	121.136	18810.94	14673.93	16614.17
n = 7	∑X = 641.107	∑Y = 493.260	∑X ² = 64046.38	∑Y ² = 39792.53	∑XY = 50223.59

Then, we know

$$\text{Slope of regression line (b)} = \frac{n\sum XY - (\sum X)(\sum Y)}{n\sum X^2 - (\sum X)^2}$$

$$= \frac{7 \times 50223.59 - (641.107)(493.260)}{7 \times 64046.38 - (641.107)^2}$$

$$= \frac{351565.13 - 316232.4388}{448324.66 - 411018.1854}$$

$$= \frac{35332.6912}{37306.4746}$$

$$= 0.94709$$

$$\text{Y-axis intercept (a)} = \frac{\sum Y}{n} - b \frac{\sum X}{n}$$

$$= \frac{493.260}{7} - 0.94709 \left| \frac{641.107}{7} \right.$$

$$= 70.4657 - 86.7409$$

$$= -16.2752$$

$$\text{Standard Error of Y Estimate} = \sqrt{\frac{\sum Y^2 - \frac{(\sum Y)^2}{n} - b \left[\sum XY - \frac{(\sum X)(\sum Y)}{n} \right]}{n - 2}}$$

$$= \sqrt{\frac{39792.53 - \frac{(493.26)^2}{7} - 0.94709 \left[50223.59 - \frac{641.107 \times 493.26}{7} \right]}{7 - 2}}$$

$$= \sqrt{\frac{47820.43}{5}}$$

$$= 50.834$$

Then, regression output constant (a) = -16.2752

Standard Error of Y Estimate = 50.834

No. of observation (n) = 7

Degree of freedom (n-2) = 5

X-coefficient (b) = 0.94709

So, the regression equation is $Y = a + bx$ (i.e. $y = -16.2752 + 0.94709X$). It is already known that loans and advances are dependent variable to deposit. Positive X coefficient shows that there is positive relation between deposit and loans and advances. If deposits increased, and loans and advances will be also increased and vice versa. Hence, in every Rs 1 of deposit, Rs. 0.94709 will be invested as loan and advance means more than 94% of deposit is invested as loans and advances in average.

In this way Bank can forecast the size of loans and advances at any level of deposits forecast will be near to accuracy if any specific change either in the market or at bank policy does not take place computed figure or loans and advances are based on trend analysis.

4.4.3 Regression Analysis between Revenue and cost

Normally revenue is influenced by cost. To generate revenue one should make expenditure. Higher amount of expenditure generates greater amount of profit if that is utilized properly. So lesser cost generates lesser profit, but it is not true at all the time. Higher cost yield higher return only when it is effectively utilized. In this analysis increment of revenue is higher than the cost in each seven years for the bank.

Table No. 28
Revenue and Cost

Rs. (00000000)					
Year	Cost (X)	Revenue (Y)	X ²	Y ²	XY
2001-02	3.77630	5.08373	14.26442	25.84431	19.19769
2002-03	4.05009	5.65907	16.40323	32.02507	22.91974
2003-04	3.71180	6.11606	13.77746	37.40619	22.70159
2004-05	3.86641	7.18988	14.94913	51.69437	27.79902
2005-06	4.84523	7.99668	23.47625	63.94689	38.74575
2006-07	5.85605	9.45772	34.29332	89.44847	55.38488
2007-08	6.82187	10.92976	46.53791	119.45965	74.56140
n = 7	$\sum X$ 32.92775	$\sum Y$ 52.43290	$\sum X^2$ 163.70172	$\sum Y^2$ 419.82495	$\sum XY$ 261.31007

Then, we know

$$\text{Slope of regression line (b)} = \frac{n\sum XY - (\sum X)(\sum Y)}{n\sum X^2 - (\sum X)^2}$$

$$X = \frac{7 \mid 261.31007 - (32.92775)(52.43290)}{7 \mid 163.70172 - (32.92775)^2}$$

$$X = \frac{1829.17049 - 1726.49742}{1145.91204 - 1084.23672}$$

$$\bar{X} = \frac{102.67307}{61.67532}$$

$$\bar{X} = 1.66473$$

$$\text{Y-axis intercept (a)} = \frac{\sum Y}{n} - b \frac{\sum X}{n}$$

$$\bar{X} = \frac{52.43290}{7} - 1.66473 \frac{32.92775}{7}$$

$$\bar{X} = 7.49041 - 1.66473 \times 4.70396$$

$$\bar{X} = 0.34042$$

$$\text{Standard Error of Y Estimate} = \sqrt{\frac{\sum Y^2 - \frac{(\sum Y)^2}{n} - b^2 \sum XY + 2ab \sum X - \frac{(\sum X)^2}{n}}{n - 2}}$$

$$= \sqrt{\frac{419.82495 - \frac{(261.31007)^2}{7} - (1.66473)^2 \times 261.31007 + 2 \times (-0.34042) \times 102.67307 - \frac{(61.67532)^2}{7}}{7 - 2}}$$

$$= \sqrt{\frac{437.67416 - 435.01071}{5}}$$

$$= 0.72986$$

Then, regression output constant (a) = -0.34042

Standard Error of Y Estimate = 0.72986

No. of observation (n) = 7

Degree of freedom (n-2) = 5

X-coefficient (b) = 1.66473

So, the regression equation is $Y = a + bx$ (i.e. $y = -0.34042 + 1.66473X$). As constant is negative by Rs. 0.34042, it shows that there needs cost and it doesn't generate

return. After covering such cost, every one Rupee generates RS. 1.66473 as revenue. So, revenue is excess rupee generates Rs. 0.66 than cost. It is not so good position because out of Rs. 0.66, administration, interest and other cost should be faced.

In this way Bank can forecast the size of loans and advances at any level of deposits forecast will be near to accuracy if any specific change either in the market or at bank policy does not take place computed figure or loans and advances are based on trend analysis.

4.5 Cost Volume Profit Analysis:

4.5.1 Analysis of spread and burden:

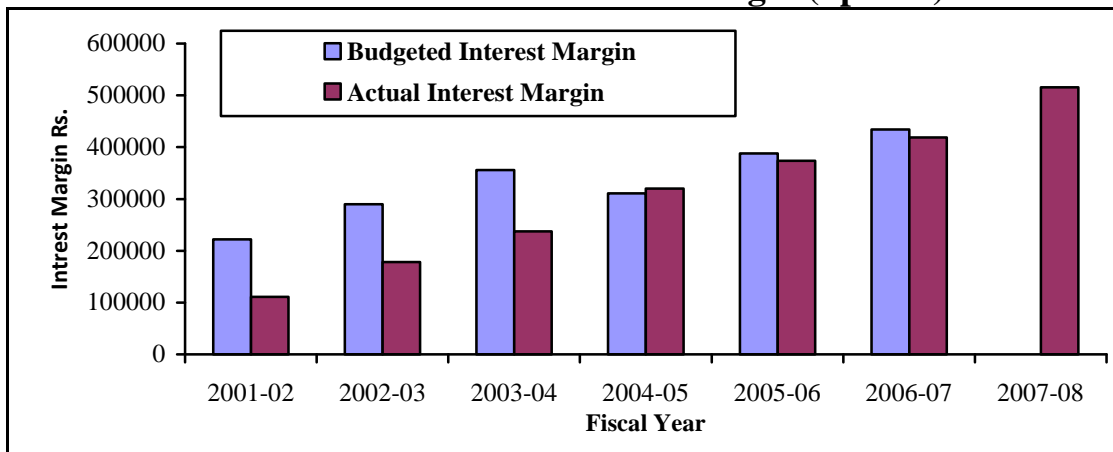
Spread is the difference between interest income and interest expenses. Higher positive difference in interest income and interest expenses generates higher profit. So, every bank is conscious for higher spread. Burden is difference between non-interest expenses and non-interest income. Normally commercial banks have higher non-interest expenses, which are arise losses for commercial banks. Higher burden in fact is the burden to commercial banks. As spread and burden are computing net profit before tax can be derived deducting burden from spread. Higher spread and lower burden has been the expectation of every commercial bank. Higher difference generates high profit before tax.

Table No 29
Summarized results of Interest Margin (Spread)

Year	Budgeted Interest Margin	Actual Interest Margin
2001-02	221808	111052
2002-03	289884	177921
2003-04	355634	237679
2004-05	310515	319942
2005-06	388048	373949
2006-07	434384	418855
2007-08	4 89486	515595

Sources: Appendix -7

Chart No 7
Summarized results of Interest Margin (Spread)



Sources: Table No. 29

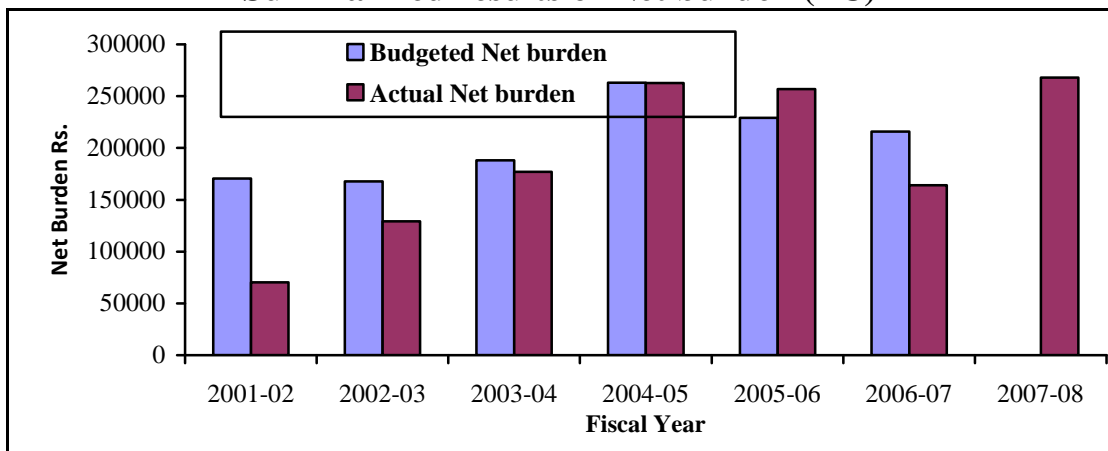
The above summarized table and chart show that budgeted interest margin are increasing every year except FY 2004/05 and Actual interest margin are also increasing every year. The interest margin achievement is less than budgeted interest margin every year except year 2004/05 and 2007/08. In the FY 2004/05 and 2007/08, the interest margin is more than budgeted interest margin.

Table No: 30
Summarized results of Net burden (FC)

Year	Budgeted Net burden	Actual Net burden
2001-02	170641	70209
2002-03	167583	129171
2003-04	188228	176828
2004-05	263007	262555
2005-06	229180	256946
2006-07	215828	163946
2007-08	2 21118	267825

Sources: Appendix -7

Chart No: 8
Summarized results of Net burden (FC)



Sources: Table No 30

The above summarized table and chart show that the both budgeted and actual net burden is fluctuating trend.

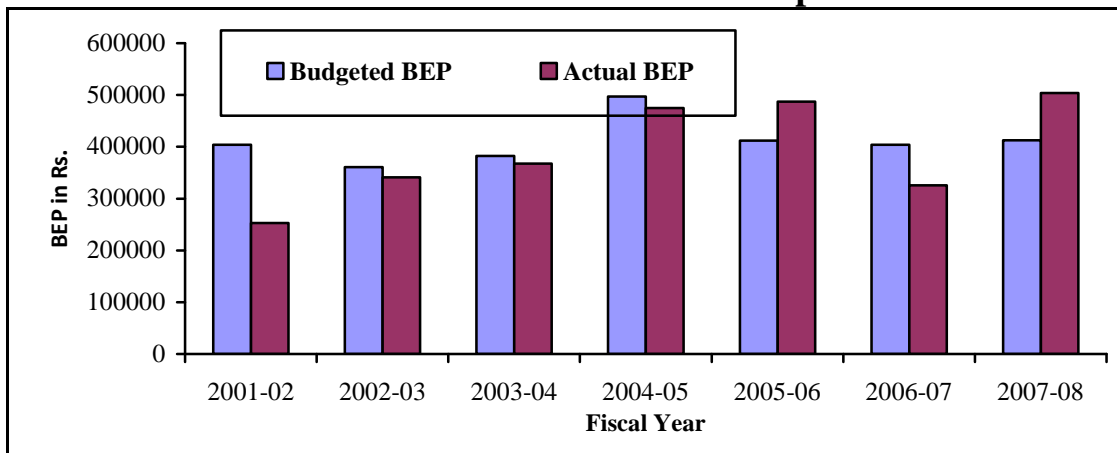
4.5.2 Analysis of Break Even Point:

Table No: 31
Summarized results of BEP in Rupees

Year	Rs. (000)	
	Budgeted BEP	Actual BEP
2001-02	404108	252647
2002-03	360574	341031
2003-04	382610	367237
2004-05	497069	474612
2005-06	411710	486961
2006-07	404207	325299
2007-08	412403	504084

Sources: Appendix -7

Chart No: 9
Summarized results of BEP in Rupees



Sources: Table No. 31

The above summarized table and chart show that both budgeted and actual BEP in Rupees are fluctuating trend. The BEP achievements are less than the targeted BEP except FY 2005/06 and 2007/08. In the FY 2005/06 and 2007/08, the BEP achievements are more than the targeted BEP.

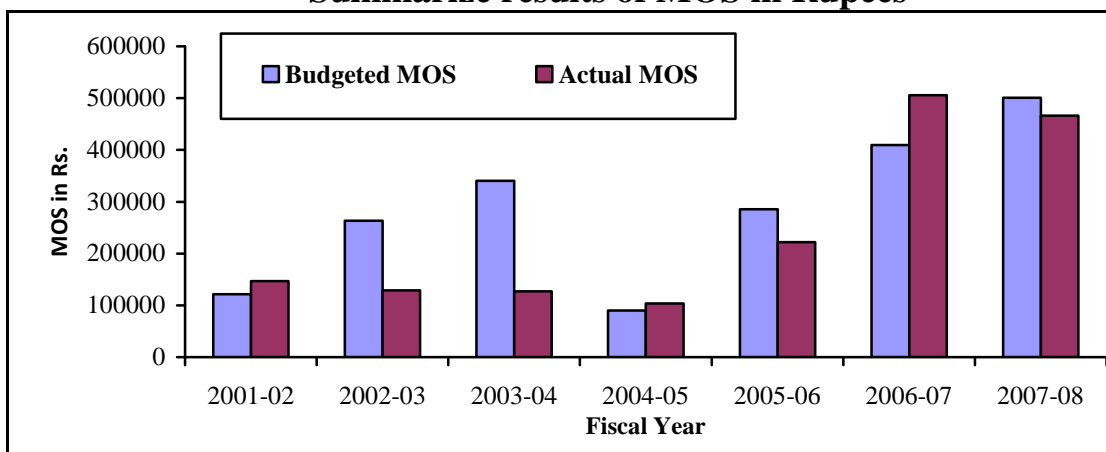
4.5.3 Analysis of Margin of Safety:

Table No 32
Summarize results of MOS in Rupees

Year	Budgeted MOS	Actual MOS
2001-02	121185	146984
2002-03	263148	128709
2003-04	340251	126761
2004-05	89789	103760
2005-06	285394	221758
2006-07	409251	505818
2007-08	500599	466429

Sources: Appendix -7

Chart No: 10
Summarize results of MOS in Rupees



Sources: Table No. 32

The above summarized table and chart show that the MOS are fluctuating trend. The MOS achievements are more than the targeted MOS in FY2001/02, 2004/05, 2005/06 and 2006/07. In the FY 2002/03, 2003/04 and 2007/08, the MOS achievements are less than the targeted MOS.

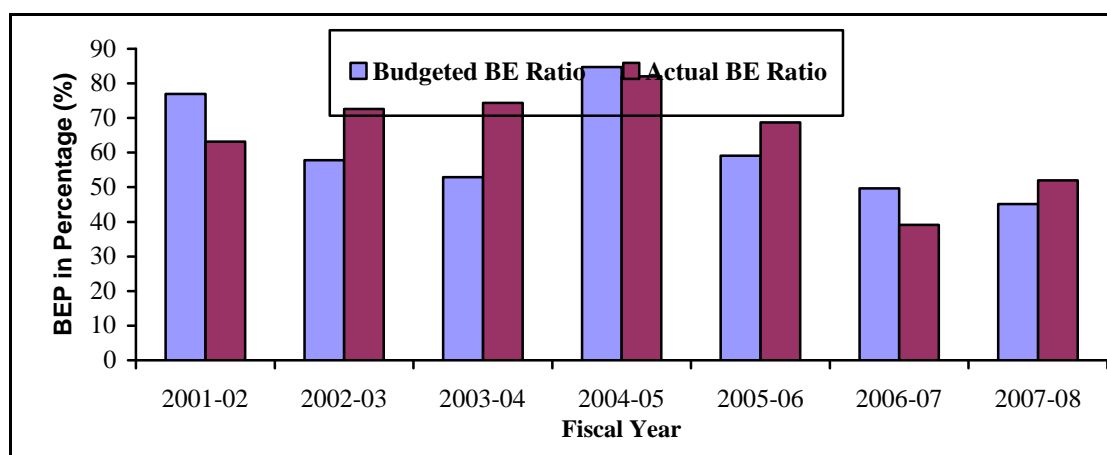
4.5.4 Analysis of Break Even Ratio:

Table No: 33
BE Ratio Analysis

Year	Budgeted BE Ratio	Actual BE Ratio
2001-02	76.93	63.22
2002-03	57.81	72.60
2003-04	52.93	74.40
2004-05	84.70	82.06
2005-06	59.06	68.71
2006-07	49.69	39.14
2007-08	45.17	51.94

Sources: Appendix -7

Chart No: 11
BE Ratio Analysis



Sources: Table No 33

The above summarized table and chart show that both budgeted and actual BE ratios are fluctuating trend. The BE ratio achievements are less than the targeted BE ratio in FY 2001/02, 2004/05 and 2006/07. In the FY 2002/03, 2003/04, 2005/06 and 2007/08, the BE ratio achievements are more than the targeted BE ratio.

4.5.5 Analysis of Margin of Safety Ratio:

Table No: 34

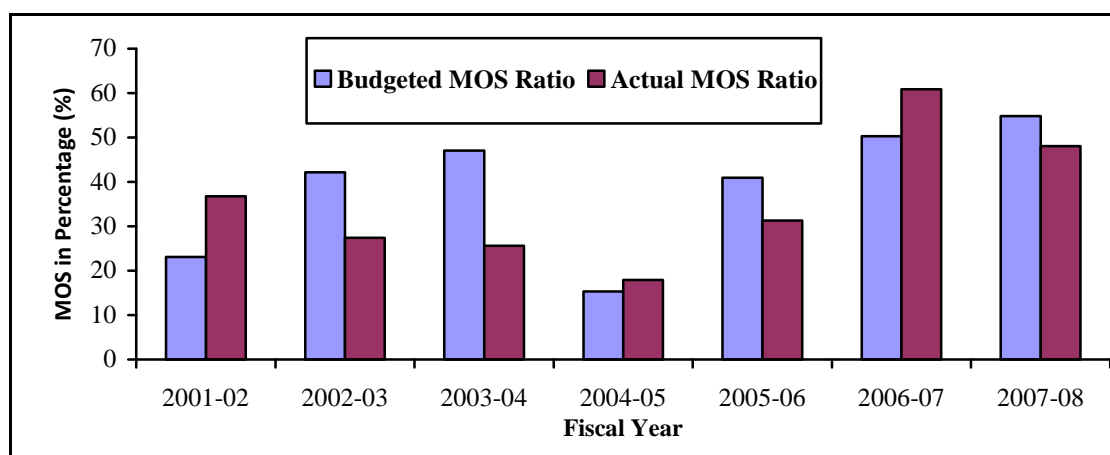
MOS Ratio Analysis

Year	Budgeted MOS Ratio	Actual MOS Ratio
2001-02	23.07	36.78
2002-03	42.19	27.40
2003-04	47.07	25.60
2004-05	15.30	17.94
2005-06	40.94	31.29
2006-07	50.31	60.86
2007-08	54.83	48.07

Sources: Appendix -7

Chart No: 12

MOS Ratio Analysis



Sources: Table No: 34

The above summarized table and chart show that both budgeted and actual MOS ratios are fluctuating trend. The MOS ratio achievements are more than the targeted MOS ratio in FY2001/02, 2004/05 and 2006/07. In the FY 2002/03, 2003/04 and 2007/08, the MOS ratio achievements are less than the targeted MOS ratio.

4.6 Major Findings:

The major findings of this research study on profit planning in commercial joint venture bank, a case study of Nepal SBI Bank Ltd. are as follows:

-) From the analysis of budgeted and actual datas of deposits, loans and advances, interest expenses, operating & other expenses and interest income, with the help of Karl Pearson's coefficient of correlation shows that, the budgeted and actual afore mentioned datas are highly positively correlated.
-) From the analysis of budgeted and actual datas of deposits, loans and advances, interest expenses, operating & other expenses and interest income, with the help of coefficient of variance, it is found that the actual datas are more variable than the budgeted correlation shows that, the budgeted afore mentioned datas.
-) From the analysis of budgeted and actual datas of other income, with the help of coefficient of variance, it is found that the actual other income is less variable than the actual other income.
-) From the analysis of budgeted and actual datas of deposits and interest expenses, with the help of Karl Pearson's coefficient of correlation, it is found that the interest expenses are lowly positive correlated between deposit and interest expenses.
-) From the datas analysis of loans and advances and interest income with the help of Karl Pearson's coefficient of correlation, it is found that there is highly correlated between loance and advances and interest income.
-) Both budgeted and actual amount of interest expenses and interest income are the highest among budgeted and actual amount of interest expenses and interest income items of the bank every year respectively.
-) Budgeted interest expenses of the bank are in increasing trend every year except FY 2004/05 and 2005/06.
-) The actual interest expenses of the bank is found increasing every year except FY 2003/04 and 2002004/05 corresponding to the increase in actual deposits every year. The actual interest expenses are lowly positive correlated with actual deposits.

-) Both budgeted and actual operating and other expenses of the bank are also in increasing trend every year.
-) Actual operating & other expenses are more than budgeted operating & other expenses in 7 years studied period except FY 2001/02. and in year 2001/02, it is less than budgeted operating & other expenses.
-) Actual Interest expenses are less than budgeted interest expenses in 7 years studied period except from FY 2005/06 to 2007/08 and from FY 2005/06 to 2007/08 are more than budgeted interest expenses.
-) Both budgeted and actual interest income amount is the highest among budgeted and actual total income items of the bank every year respectively
-) Budgeted interest income of the bank is in increasing trend every year except FY 2004/05 and 2005/06.
-) Actual Interest income are less than budgeted interest income in 7 years studied period except from FY 2005/06 to 2007/08 and from FY 2005/06 to 2007/08 are more than budgeted interest income.
-) Budgeted other income of the bank are also in increasing trend every year except FY 2005/06.
-) Actual other incomes of the bank are also in increasing trend every year except FY 2002/03 and 2005/06.
-) Actual other income are less than budgeted other income in 7 years studied period except FY 2001/02. and 2004/05; and in FY 2001/02. and 2004/05 more than budgeted other income.
-) The actual interest income of the bank is found increasing every year corresponding to the increase in actual loans & advances every year. The actual interest income is highly positive correlated with actual loans & advances
-) Nepal SBI bank does not prepare various budgets in proper and systematic way. Budgets are prepared just to fulfill the formalities but there are not used effectively for profit planning process.

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CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary:

The prosperity of every developing country can only be ensured by economic growth. Commercial banks are major financial institutions, which occupy quite an important place in the framework of every economy because they provide capital for the development of industry, trade and business and other resources deflect sectors investing the saving collected as deposit. Commercial banks have its own role and contribution in the economic development; it maintains economic confidence of various segments and extends credit to people. The banking sector has to play developmental role to boost the economy by adopting the growth oriented investment policy and building up the financial structure for future economic development formulation of sound investment policies and planned effort pushed forward the force of economic growth.

To remain as the major contributing factor to the growth of the nation's economy, the banks also have to have sustainable existence and growth of themselves. For the sustainable existence and growth of a bank, it must ensure reasonable profitability. As the banks are formed as joint stock companies promoted by shareholders investment, it must give reasonable return on the fund of the shareholders. Further by the profit made by the bank, it may choose to increase its capital base to make it stronger and more sustainable for facing any future threat that may come up. A profit earning organization can better feed to their employees, thereby enhancing the morale of the employees and motivate them for better performances.

The income and profit of the bank depends upon its lending procedure, lending policy and investment of its fund utilize in different securities. Commercial banks able to utilize its deposits properly i.e. providing loans and advance or lending for a profitable project, the reason behind it is lack of sound investment policy. The main objective of this study is to highlight profit planning practices and its effectiveness in

Nepalese commercial joint venture bank; with a specific case study of Nepal SBI Bank Ltd. The study is totally based on secondary resources of data and required data have been collected by published and unpublished sources.

There are 26 Commercial banks have been operating in Nepal which are considered to be the population of the study and out of them only one commercial joint venture bank i.e. Nepal SBI Bank Ltd. has been taken as sample of the study and collected data have been analyzed by using various financial tools and statistical tools like: CVP analysis, Mean, Standard deviation, Coefficient of variation, Correlation coefficient, Trend analysis, Regression analysis, etc.

This study has tried to cover the various aspect of budgeting and profit planning in the bank of seven years (from the time of 2001/02 to 2007/08). In the first introductory chapter, this study report has tried to give back ground of the study, statement of the problem, objective of the study and its scope and limitations of the study and organization of the study.

During the research works, an extensive review of various literatures, books, past thesis, journals have been made and internet materials from relevant web sites were also consulted. The works were compiled into the chapter two titled as 'Review of Literature' of this study report.

Research methodologies followed for this research works are mentioned in chapter three titled as 'Research Methodology'.

Data relating to various activities of the bank has been collected, presented in tabular and various diagram form and are tried to be interpreted in the study report in logical ways. Data are then analyzed applying various financial, mathematical and statistical tools have been listed in a systematic manner. All these works are compiled in the forth chapter titled as 'Data Presentation and Analysis' of this study.

Finally, the summary, major findings and the recommendation made by the researcher by this study are hereby being presented in thesis current chapter, chapter five titled as 'Summary, Major findings and recommendations'.

5.2 Conclusion:

The budgeted and actual interest expenses as well as interest income are in increasing trend except in some years. Seemingly, the expenses of interest and income of interest are the highest out of other total expenses and total income in every fiscal year respectively. The actual interest income is less than the budgeted interest income. Similarly, the actual interest expenses are also less than budgeted interest expenses. From the study we come to know that there is unfavourable interest income whereas favourable interest expenditures. Actual data of deposits, loans & advances, interest expenses, operating & other expenses are more variable than the budgeted. The coefficient of co-relation between budgeted and actual afore mentioned data are often highly positive co-related for three fiscal years and less than targeted for four fiscal years. Interest and operating other expenditures achievements which was the poorest result among the seven fiscal years period. Budgeted and actual other income is very less for the fiscal year 2005/06 and fiscal year 2007/08. The budgeted and actual deposits as well as loans & advances are in increasing trend. The bank is able to achieve more than 100% of the targeted deposits except the fiscal year 2001/02. Likewise, in the case of loans and advances achievement is more than targeted. From the trend analysis budgeted and actual deposits, loans and advances, interest expenses, interest income, operating and other expenses and other income are all in increasing trend upto the whole study years. The budgeted and actual interest margin is increasing every year. The interest margin achievement is more than budgeted interest margin only for three years. The both budgeted and actual net burden is in fluctuating trend.

5.3 Recommendations:

On the basis of the findings of the study, the following suggestions are recommended to improve the profit planning system of the bank:

- 1) In the light of growing competition in the banking sector the business of the bank is customer oriented. It should strengthen and active its marketing function, as it is an effective tool of attracting and retaining customers. The bank should develop an innovative approach to bank marketing and formulate new strategies of serving customers in a more convenient way.

-) Correlation between budgeted and actual data of deposits, loans and advances, interest expenses, operating and other expenses and interest income are highly positive correlated, it shows there is highly positive relation between budgeted and actual data but it is not sufficient, so bank should maintain perfect positive correlation between budget and actual data.
-) Actual achievement of deposits, loans and advances, interest expenses, operating and other expenses and interest income are more variable than budgeted, the bank should maintain consistency between budgeted and actual achievements.
-) Correlation between deposit and interest expenses show there is lowly positive correlation. It shows there is lowly positive relation between interest and deposits, but it is not possible. So bank should maintain perfectly positive correlation between interest expenses and deposits.
-) Correlation between loans and advances and interest income is highly positive correlated, it shows there is highly positive relation between loans and advances and interest income. But it is not sufficient so the bank should maintain perfectly positive correlation between loans and advances and interest income.
-) In practice joint ventured banks are urban based; service quite a few elite, a fluent big customer are heavily dependent on free based activities. To overcome its situation they should be accessible to rural areas and possible loans and advances to its deposit. So the customers are enjoying by getting deposit borrowing and other services
-) The Nepal Rastra Bank has put the restriction on the difference of average rate of interest income and average rate of interest expenses of the bank (i.e. spread) not to exceed 6%. Therefore the bank has to put more focus on the other kind of non-funded activities by which it shall increase income from other sources than interest to increase its profitability
-) Expenses can not be avoided and always are growing with increasing activities, but it should be optimized and should be related with the income generating activities. Bank should minimize those expenses which are not related to income earning. Other expenses than interest form a burden to the gross profit margin (interest margin) of the bank; therefore lowering the other expenses the bank shall enhance its profit.

) The average cost of deposit of the bank is high, therefore the bank should try to lower it by mobilizing more and more low cost or cost free deposits there by reducing the interest cost because due to the high cost of deposit, bank is forced to invest its fund more on high yielding assets, which are generally not liquid and obviously risky for the bank.

Proper profit planning are the major means to achieve the desired objectives and constant growth from its focused activities, so the banks are advised to prepare better plans. As a result, there would not be highly fluctuating increments.

Appendix -7
Cost Volume profit Analysis

For fiscal year 2001-02	Amount in Rs.'000'
Total Interest Income	Rs. 3, 99,631
Total Interest Expenses	Rs. 2, 88,579
Total Other Expenses	Rs. 1, 78,949
Total Other Income	Rs. 1, 08,740

Net Burden (Fixed Cost)

$$\begin{aligned}
 &= \text{Total Other Expenses} - \text{Total Other Income} \\
 &= \text{Rs. 1, 78,949} - \text{Rs. 1, 08,740} \\
 &= \text{Rs. 70,209}
 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned}
 &= \text{Total Interest Income} - \text{Total Interest Expenses} \\
 &= \text{Rs. 3, 99,631} - \text{Rs. 2, 88,579} \\
 &= \text{Rs. 1, 11,052}
 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\text{BEP in \%} \times \frac{\text{Net Burden}}{\text{Interest Margin}} \mid 100$$

$$\times \frac{\text{Rs.70208}}{\text{Rs.111052}} \mid 100$$

$$\times 63.22\%$$

$$\text{BEP in Rs.} \times \text{Interest Income} \mid \text{BEP in \%}$$

$$= \text{Rs. 3, 99,631} \times 63.22\%$$

$$= \text{Rs. 2, 52,647}$$

We find out Nepal SBI Bank's break-even interest income level is Rs.25.26 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
\text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\
&= \text{Rs. } 3,99,631 - \text{Rs. } 2,52,647 \\
&= \text{Rs. } 1,46,984
\end{aligned}$$

Margin of Safety ratio (MOS ratio):

$$\begin{aligned}
\text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\
&= \frac{\text{Rs. } 146984}{\text{Rs. } 399631} \times 100 \\
&= 36.78\%
\end{aligned}$$

$$\begin{aligned}
\text{Alternatively, CMR} &= \frac{\text{Interest Margin}}{\text{Interest Income}} \\
&= \frac{\text{Rs. } 111052}{\text{Rs. } 399631} \\
&= 0.2779
\end{aligned}$$

$$\begin{aligned}
\text{BEP in Rs.} &= \frac{\text{Net Burden}}{\text{CMR}} \\
&= \frac{\text{Rs. } 70209}{0.2779} \\
&= \text{Rs. } 252541
\end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs.25.26 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
\text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\
&= \text{Rs. } 3,99,631 - \text{Rs. } 2,52,641 \\
&= \text{Rs. } 1,46,990
\end{aligned}$$

Margin of Safety ratio (MOS ratio):

$$\begin{aligned} \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\ &= \frac{\text{Rs. } 146990}{\text{Rs. } 399631} \times 100 \\ &= 36.78\% \end{aligned}$$

For fiscal year 2002-03	Amount in Rs.'000
Total Interest Income	Rs. 4, 69,740
Total Interest Expenses	Rs. 2, 91,819
Total Other Expenses	Rs. 2, 25,339
Total Other Income	Rs. 96,168

Net Burden (Fixed Cost)

$$\begin{aligned} &= \text{Total Other Expenses} - \text{Total Other Income} \\ &= \text{Rs. } 2, 25,339 - \text{Rs. } 96,168 \\ &= \text{Rs. } 1, 29,171 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned} &= \text{Total Interest Income} - \text{Total Interest Expenses} \\ &= \text{Rs. } 4, 69,740 - \text{Rs. } 2, 91,819 \\ &= \text{Rs. } 1, 77,921 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned} \text{BEP in \%} &= \frac{\text{Net Burden}}{\text{Interest Margin}} \times 100 \\ &= \frac{\text{Rs. } 1,29,171}{\text{Rs. } 1,77,921} \times 100 \\ &= 72.60\% \end{aligned}$$

$$\begin{aligned} \text{BEP in Rs.} &= \text{Interest Income} \times \text{BEP in \%} \\ &= \text{Rs. } 4, 69,740 \times 72.60\% \\ &= \text{Rs. } 3, 41,031 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 34.10 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 4,69,740 - \text{Rs. } 3,41,031 \\ &= \text{Rs. } 1,28,709 \end{aligned}$$

Margin of Safety ratio (MOS ratio):

$$\begin{aligned} \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\ &= \frac{\text{Rs. } 1,28,709}{\text{Rs. } 4,69,740} \times 100 \\ &= 27.40\% \end{aligned}$$

Alternatively,

$$\begin{aligned} \text{CMR} &= \frac{\text{Interest Margin}}{\text{Interest Income}} \\ &= \frac{\text{Rs. } 1,77,921}{\text{Rs. } 4,69,740} \\ &= 0.3788 \end{aligned}$$

$$\begin{aligned} \text{BEP in Rs.} &= \frac{\text{Net Burden}}{\text{CMR}} \\ &= \frac{\text{Rs. } 1,29,171}{0.3788} \\ &= \text{Rs. } 3,41,001 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 34.10 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 4,69,740 - \text{Rs. } 3,41,001 \\ &= \text{Rs. } 1,28,739 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned} \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\ &= \frac{\text{Rs } 1,28,739}{\text{Rs } 4,69,740} \times 100 \\ &= 27.41\% \end{aligned}$$

For fiscal year 2003-04	Amount in Rs.'000
Total Interest Income	Rs. 4, 93,598
Total Interest Expenses	Rs. 2, 55,919
Total Other Expenses	Rs. 2, 94,836
Total Other Income	Rs. 1, 18,008

Net Burden (Fixed Cost)

$$\begin{aligned} &= \text{Total Other Expenses} - \text{Total Other Income} \\ &= \text{Rs. } 2, 94,836 - \text{Rs. } 1, 18,008 \\ &= 1, 76,828 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned} &= \text{Total Interest Income} - \text{Total Interest Expenses} \\ &= \text{Rs. } 4, 93,598 - \text{Rs. } 2, 55,919 \\ &= \text{Rs. } 2, 37,679 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned} \text{BEP in \%} &= \frac{\text{Net Burden}}{\text{Interest Margin}} \times 100 \\ &= \frac{\text{Rs } 1,76,828}{\text{Rs } 2,37,979} \times 100 \\ &= 74.40\% \end{aligned}$$

$$\begin{aligned} \text{BEP in Rs.} &= \text{Interest Income} \times \text{BEP in \%} \\ &= \text{Rs. } 4, 93,598 \times 74.40\% \\ &= \text{Rs. } 3, 67,237 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 36.72 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 4,93,598 - \text{Rs. } 3,67,237 \\ &= \text{Rs. } 1,26,361 \end{aligned}$$

Margin of Safety ratio (MOS ratio):

$$\begin{aligned} \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\ &= \frac{\text{Rs. } 1,26,361}{\text{Rs. } 4,93,598} \times 100 \\ &= 25.60\% \end{aligned}$$

Alternatively,

$$\begin{aligned} \text{CMR} &= \frac{\text{Interest Margin}}{\text{Interest Income}} \\ &= \frac{\text{Rs. } 2,37,679}{\text{Rs. } 4,93,598} \\ &= 0.4815 \\ \text{BEP in Rs.} &= \frac{\text{Net Burden}}{\text{CMR}} \\ &= \frac{\text{Rs. } 1,76,828}{0.4815} \\ &= \text{Rs. } 3,67,244 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 36.72 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 4,93,598 - \text{Rs. } 3,67,244 \\ &= \text{Rs. } 1,26,354 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\text{MOS Ratio} = \frac{\text{Mos}}{\text{Total Interest Income}} \times 100$$

$$= \frac{Rs.1,26,354}{Rs.4,93,598} \times 100$$

$$X25.60\%$$

For fiscal year 2004-05	Amount in Rs.'000'
Total Interest Income	Rs. 5, 78,372
Total Interest Expenses	Rs. 2, 58,430
Total Other Expenses	Rs. 4, 03,171
Total Other Income	Rs. 1, 40,616
Net Burden (Fixed Cost)	
= Total Other Expenses - Total Other Income	
= Rs. 4, 03,171- Rs. 1, 40,616	
= Rs. 2, 62,555	

Interest Margin (Spread)

$$= \text{Total Interest Income} - \text{Total Interest Expenses}$$

$$= \text{Rs. } 5, 78,372 - \text{Rs. } 2, 58,430$$

$$= \text{Rs. } 3, 19,942$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$BEP \text{ in } \% \times \frac{Net \ Burden}{Interest \ Margin} | 100$$

$$= \frac{Rs.2,62,555}{Rs.3,19,942} \times 100$$

$$X82.06\%$$

$$BEP \text{ in Rs. } \times Interest \ Income | BEP \text{ in } \%$$

$$= \text{Rs. } 5, 78,372 \times 82.06 \%$$

$$= \text{Rs. } 4, 74,612$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 47.46 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}\text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 5,78,372 - \text{Rs. } 4,74,612 \\ &= \text{Rs. } 1,03,760\end{aligned}$$

$$\begin{aligned}\text{MOS Ratio X} &\frac{\text{Mos}}{\text{Total Interest Income}} | 100 \\ &= \frac{\text{Rs. } 1,03,760}{\text{Rs. } 5,78,372} \times 100 \\ &= 17.94\%\end{aligned}$$

Alternatively,

$$\begin{aligned}\text{CMR X} &\frac{\text{Interest Margin}}{\text{Interest Income}} \\ &= \frac{\text{Rs. } 3,19,942}{\text{Rs. } 5,78,372} \\ &= 0.5532\end{aligned}$$

$$\begin{aligned}\text{BEP in Rs. X} &\frac{\text{Net Burden}}{\text{CMR}} \\ &= \frac{\text{Rs. } 2,62,555}{0.5532} \\ &= \text{Rs. } 4,74,611\end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 47.46 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}\text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 5,78,372 - \text{Rs. } 4,74,611 \\ &= \text{Rs. } 1,03,761\end{aligned}$$

Margin of Safety ratio (MOS ratio):

$$\begin{aligned}\text{MOS Ratio X} &\frac{\text{Mos}}{\text{Total Interest Income}} | 100 \\ &= \frac{\text{Rs. } 1,03,761}{\text{Rs. } 5,78,372} \times 100 \\ &= 17.94\%\end{aligned}$$

For fiscal year 2005-06	Amount in Rs.'000'
Total Interest Income	Rs. 7, 08,719
Total Interest Expenses	Rs. 3, 34,770
Total Other Expenses	Rs. 3, 47,896
Total Other Income	Rs. 90,950

Net Burden (Fixed Cost)

$$\begin{aligned}
 &= \text{Total Other Expenses} - \text{Total Other Income} \\
 &= \text{Rs. } 3, 47,896 - \text{Rs. } 90,950 \\
 &= \text{Rs. } 2, 56,946
 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned}
 &= \text{Total Interest Income} - \text{Total Interest Expenses} \\
 &= \text{Rs. } 7, 08,719 - \text{Rs. } 3, 34,770 \\
 &= \text{Rs. } 3, 73,949
 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\text{BEP in \%} \times \frac{\text{Net Burden}}{\text{Interest Margin}} \mid 100$$

$$= \frac{\text{Rs. } 2,56,946}{\text{Rs. } 3,73,949} \times 100$$

$$\times 68.71\%$$

$$\text{BEP in Rs.} \times \text{Interest Income} \mid \text{BEP in \%}$$

$$= \text{Rs. } 7, 08,719 \times 68.71 \%$$

$$= \text{Rs. } 4, 86,961$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 48.70 Crore.

Margin of Safety can be calculated as follows:

$$\text{Margin of Safety} = \text{Total Interest Income} - \text{BEP Interest Income}$$

$$= \text{Rs. } 7, 08,719 - \text{Rs. } 4, 86,961$$

$$= \text{Rs. } 2, 21,758$$

$$\begin{aligned}
 \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\
 &= \frac{\text{Rs. 2,21,758}}{\text{Rs. 7,08,719}} \times 100 \\
 &= 31.29\%
 \end{aligned}$$

Alternatively,

$$\begin{aligned}
 \text{CMR} &= \frac{\text{Interest Margin}}{\text{Interest Income}} \\
 &= \frac{\text{Rs. 3,73,949}}{\text{Rs. 7,08,719}} \\
 &= 0.5276
 \end{aligned}$$

$$\begin{aligned}
 \text{BEP in Rs.} &= \frac{\text{Net Burden}}{\text{CMR}} \\
 &= \frac{\text{Rs. 2,56,946}}{0.5276} \\
 &= \text{Rs. 4, 87,009}
 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 48.70 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
 \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\
 &= \text{Rs. 7, 08,719} - \text{Rs. 4, 87,009} \\
 &= \text{Rs. 2, 21,710}
 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned}
 \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\
 &= \frac{\text{Rs. 2,21,710}}{\text{Rs. 7,08,719}} \times 100 \\
 &= 31.28\%
 \end{aligned}$$

For fiscal year 2006-07	Amount in Rs.'000'
Total Interest Income	Rs. 8, 31,117
Total Interest Expenses	Rs. 4, 12,262
Total Other Expenses	Rs. 2, 78,602

Total Other Income Rs. 1, 14,656

Net Burden (Fixed Cost)

= Total Other Expenses - Total Other Income

= Rs. 2, 78,602- Rs. 1, 14,656

= Rs. 1, 63,946

Interest Margin (Spread)

= Total Interest Income - Total Interest Expenses

= Rs. 8, 31,117- Rs. 4, 12,262

= Rs. 4, 18,855

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned} \text{BEP in \%} &= \frac{\text{Net Burden}}{\text{Interest Margin}} \times 100 \\ &= \frac{\text{Rs.1,63,946}}{\text{Rs.4,18,855}} \times 100 \\ &= 39.14\% \end{aligned}$$

$$\begin{aligned} \text{BEP in Rs.} &= \text{Interest Income} \times \text{BEP in \%} \\ &= \text{Rs. 8, 31,117} \times 39.14 \% \\ &= \text{Rs. 3, 25,299} \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 32.53 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. 8, 31,117} - \text{Rs. 3, 25,299} \\ &= \text{Rs.5, 05,818} \end{aligned}$$

$$\begin{aligned} \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\ &= \frac{\text{Rs.5,05,818}}{\text{Rs.8,31,117}} \times 100 \\ &= 60.86\% \end{aligned}$$

Alternatively,

$$\begin{aligned}
 \text{CMR} & \times \frac{\text{Interest Margin}}{\text{Interest Income}} \\
 & = \frac{\text{Rs.4,18,855}}{\text{Rs.8,31,117}} \\
 & = 0.5040
 \end{aligned}$$

$$\begin{aligned}
 \text{BEP in Rs.} & \times \frac{\text{Net Burden}}{\text{CMR}} \\
 & = \frac{\text{Rs.1,63,946}}{0.5040} \\
 & = \text{Rs. 3, 25,290}
 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 48.70 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
 \text{Margin of Safety} & = \text{Total Interest Income} - \text{BEP Interest Income} \\
 & = \text{Rs. 8, 31,117} - \text{Rs. 3, 25,290} \\
 & = \text{Rs. 5, 05,827}
 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned}
 \text{MOS Ratio} & \times \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\
 & = \frac{\text{Rs.5,05,827}}{\text{Rs.8,31,117}} \times 100 \\
 & \text{X60.86\%}
 \end{aligned}$$

For fiscal year 2007-08	Amount in Rs.'000'
Total Interest Income	Rs. 9, 70,513
Total Interest Expenses	Rs. 4, 54,918
Total Other Expenses	Rs. 3, 90,289
Total Other Income	Rs. 1, 22,464

Net Burden (Fixed Cost)

$$\begin{aligned}
 & = \text{Total Other Expenses} - \text{Total Other Income} \\
 & = \text{Rs. 3, 90,289} - \text{Rs. 1, 22,464}
 \end{aligned}$$

$$= \text{Rs. } 2, 67,825$$

Interest Margin (Spread)

$$= \text{Total Interest Income} - \text{Total Interest Expenses}$$

$$= \text{Rs. } 9, 70,513 - \text{Rs. } 4, 54,918$$

$$= \text{Rs. } 5, 15,595$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned} \text{BEP in \%} & \times \frac{\text{Net Burden}}{\text{Interest Margin}} \mid 100 \\ & = \frac{\text{Rs. } 2,67,825}{\text{Rs. } 5,15,595} \times 100 \\ & = 51.94 \% \end{aligned}$$

$$\begin{aligned} \text{BEP in Rs.} & \times \text{Interest Income} \mid \text{BEP in \%} \\ & = \text{Rs. } 9, 70,513 \times 51.94 \% \\ & = \text{Rs. } 5, 04,084 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 50.41 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} & = \text{Total Interest Income} - \text{BEP Interest Income} \\ & = \text{Rs. } 9, 70,513 - \text{Rs. } 5, 04,084 \\ & = \text{Rs. } 4, 66,429 \end{aligned}$$

$$\begin{aligned} \text{MOS Ratio} & \times \frac{\text{Mos}}{\text{Total Interest Income}} \mid 100 \\ & = \frac{\text{Rs. } 4,66,429}{\text{Rs. } 9,70,513} \times 100 \\ & = 48.06 \% \end{aligned}$$

Alternatively,

$$\begin{aligned} \text{CMR} & \times \frac{\text{Interest Margin}}{\text{Interest Income}} \\ & = \frac{\text{Rs. } 5,15,595}{\text{Rs. } 9,70,513} \end{aligned}$$

$$= 0.5313$$

$$\begin{aligned} \text{BEP in Rs. X} &= \frac{\text{Net Burden}}{\text{CMR}} \\ &= \frac{\text{Rs. 2,67,825}}{0.5313} \\ &= \text{Rs. 5, 04,094} \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 50.41 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. 9, 70,513} - \text{Rs. 5, 04,094} \\ &= \text{Rs. 4, 66,419} \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned} \text{MOS Ratio X} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\ &= 48.06 \% \end{aligned}$$

Cost Volume profit Analysis of Nepal SBI Bank (Budgeted data are used)

For fiscal year 2001-02	Amount in Rs.'000'
Total Interest Income	Rs. 5, 25,293
Total Interest Expenses	Rs. 3, 03,485
Total Other Expenses	Rs. 2, 48,480
Total Other Income	Rs. 77,839

Net Burden (Fixed Cost)

$$\begin{aligned} &= \text{Total Other Expenses} - \text{Total Other Income} \\ &= \text{Rs. 2, 48,480} - \text{Rs. 77,839} \\ &= \text{Rs. 1, 70,641} \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned} &= \text{Total Interest Income} - \text{Total Interest Expenses} \\ &= \text{Rs. 5, 25,293} - \text{Rs. 3, 03,485} \end{aligned}$$

$$= \text{Rs.} 2, 21,808$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned} \text{BEP in \%} & \times \frac{\text{Net Burden}}{\text{Interest Margin}} \mid 100 \\ & \times \frac{\text{Rs } 1,70,641}{\text{Rs } 2,21,808} \mid 100 \\ & \times 76.93\% \end{aligned}$$

$$\begin{aligned} \text{BEP in Rs.} & \times \text{Interest Income} \mid \text{BEP in \%} \\ & = \text{Rs. } 5, 25,293 \times 76.93 \% \\ & = \text{Rs. } 4, 04,108 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 40.41Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned} \text{Margin of Safety} & = \text{Total Interest Income} - \text{BEP Interest Income} \\ & = \text{Rs. } 5, 25,293 - \text{Rs. } 4, 04,108 \\ & = \text{Rs.} 1, 21,185 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned} \text{MOS Ratio} & \times \frac{\text{Mos}}{\text{Total Interest Income}} \mid 100 \\ & \times \frac{\text{Rs } 1,21,185}{\text{Rs } 5,25,293} \mid 100 \\ & \times 23.07\% \end{aligned}$$

For fiscal year 2002-03	Amount in Rs.'000'
Total Interest Income	Rs. 6, 23,722
Total Interest Expenses	Rs. 3, 33,838
Total Other Expenses	Rs. 2, 66,757
Total Other Income	Rs. 99,174

Net Burden (Fixed Cost)

= Total Other Expenses – Total Other Income

= Rs. 2, 66,757- Rs. 99,174

= Rs. 1, 67,583

Interest Margin (Spread)

= Total Interest Income – Total Interest Expenses

= Rs. 6, 23,722 - Rs. 3, 33,838

$$X \frac{Rs\ 1,67,583}{Rs\ 2,89,884} | 100$$

X57.81%

BEP in Rs. X Interest Income | BEP in %

= Rs. 6, 23,722 x 57.81 %

= Rs. 3, 60,574

We find out Nepal SBI Bank's break-even interest income level is Rs. 36.06 Crore.

Margin of Safety can be calculated as follows:

Margin of Safety = Total Interest Income - BEP Interest Income

= Rs. 6, 23,722 - Rs. 3, 60,574

= Rs.2, 63,148

Margin of Safety ratio (MOS ratio)

$$MOS\ Ratio\ X \frac{Mos}{Total\ Interest\ Income} | 100$$

$$X \frac{Rs\ 2,63,148}{Rs\ 6,23,722} | 100$$

X42.19%

For fiscal year 2003-04	Amount in Rs.'000'
Total Interest Income	Rs. 7, 22,861
Total Interest Expenses	Rs. 3, 67,227
Total Other Expenses	Rs. 3, 14,814
Total Other Income	Rs. 1, 26,586

Net Burden (Fixed Cost)

$$\begin{aligned} &= \text{Total Other Expenses} - \text{Total Other Income} \\ &= \text{Rs. } 3,14,814 - \text{Rs. } 1,26,586 \\ &= \text{Rs. } 1,88,228 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned} &= \text{Total Interest Income} - \text{Total Interest Expenses} \\ &= \text{Rs. } 7,22,861 - \text{Rs. } 3,67,227 \\ &= \text{Rs. } 3,55,634 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\text{BEP in \%} \times \frac{\text{Net Burden}}{\text{Interest Margin}} | 100$$

$$\times \frac{\text{Rs } 1,88,228}{\text{Rs } 3,55,634} | 100$$

$$\times 52.93\%$$

$$\text{BEP in Rs.} \times \text{Interest Income} | \text{BEP in \%}$$

$$= \text{Rs. } 7,22,861 \times 52.93\%$$

$$= \text{Rs. } 3,82,610$$

We find out Nepal SBI Bank's break-even interest income level is Rs.38.26 Crore.

Margin of Safety can be calculated as follows:

$$\text{Margin of Safety} = \text{Total Interest Income} - \text{BEP Interest Income}$$

$$= \text{Rs. } 7,22,861 - \text{Rs. } 3,82,610$$

$$= \text{Rs. } 3,40,251$$

Margin of Safety ratio (MOS ratio)

$$\text{MOS Ratio} \times \frac{\text{Mos}}{\text{Total Interest Income}} | 100$$

$$\times \frac{\text{Rs } 3,40,251}{\text{Rs } 7,22,861} | 100$$

$$\times 47.07\%$$

For fiscal year 2004-05	Amount in Rs.'000'
Total Interest Income	Rs. 5, 86,858
Total Interest Expenses	Rs. 2, 76,343
Total Other Expenses	Rs. 3, 96,834
Total Other Income	Rs. 1, 33,827

Net Burden (Fixed Cost)

$$\begin{aligned}
 &= \text{Total Other Expenses} - \text{Total Other Income} \\
 &= \text{Rs. } 3, 96,834 - \text{Rs. } 1, 33,827 \\
 &= \text{Rs. } 2, 63,007
 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned}
 &= \text{Total Interest Income} - \text{Total Interest Expenses} \\
 &= \text{Rs. } 5, 86,858 - \text{Rs. } 2, 76,343 \\
 &= \text{Rs. } 3, 10,515
 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned}
 \text{BEP in \%} & \times \frac{\text{Net Burden}}{\text{Interest Margin}} \mid 100 \\
 & \times \frac{\text{Rs } 2,63,007}{\text{Rs } 3,10,515} \mid 100 \\
 & \times 84.70\%
 \end{aligned}$$

$$\begin{aligned}
 \text{BEP in Rs.} & \times \text{Interest Income} \mid \text{BEP in \%} \\
 & = \text{Rs. } 5, 86,858 \times 84.70 \% \\
 & = \text{Rs. } 4, 97,069
 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
 \text{Margin of Safety} & = \text{Total Interest Income} - \text{BEP Interest Income} \\
 & = \text{Rs. } 5, 86,858 - \text{Rs. } 4, 97,069 \\
 & = \text{Rs. } 89,789
 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$MOS \text{ Ratio } X \frac{Mos}{Total \text{ Interest Income}} | 100$$

$$X \frac{Rs \ 89,789}{Rs \ 5,86,858} | 100$$

$$X15.30\%$$

For fiscal year 2005-06	Amount in Rs.'000'
Total Interest Income	Rs. 6, 97,104
Total Interest Expenses	Rs. 3, 09,056
Total Other Expenses	Rs. 3, 48,552
Total Other Income	Rs. 1, 19,372

Net Burden (Fixed Cost)

$$= \text{Total Other Expenses} - \text{Total Other Income}$$

$$= \text{Rs. 3, 48,552} - \text{Rs. 1, 19,372}$$

$$= \text{Rs. 2, 29,180}$$

Interest Margin (Spread)

$$= \text{Total Interest Income} - \text{Total Interest Expenses}$$

$$= \text{Rs. 6, 97,104} - \text{Rs. 3, 09,056}$$

$$= \text{Rs. 3, 88,048}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$BEP \text{ in } \% X \frac{Net \ Burden}{Interest \ Margin} | 100$$

$$X \frac{Rs \ 2,29,180}{Rs \ 3,88,048} | 100$$

$$X59.06\%$$

$$BEP \text{ in Rs. } X \text{ Interest Income } | BEP \text{ in } \%$$

$$= \text{Rs. 6, 97,104} \times 59.06 \%$$

$$= \text{Rs. 4, 11,710}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 41.17 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}\text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\ &= \text{Rs. } 6,97,104 - \text{Rs. } 4,11,710 \\ &= \text{Rs. } 2,85,394\end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned}\text{MOS Ratio} &= \frac{\text{MOS}}{\text{Total Interest Income}} \times 100 \\ &= \frac{\text{Rs } 2,85,394}{\text{Rs } 6,97,104} \times 100 \\ &= 40.94\%\end{aligned}$$

For fiscal year 2006-07	Amount in Rs.'000'
Total Interest Income	Rs. 8,13,458
Total Interest Expenses	Rs. 3,79,074
Total Other Expenses	Rs. 3,61,936
Total Other Income	Rs. 1,46,108

Net Burden (Fixed Cost)

$$\begin{aligned}&= \text{Total Other Expenses} - \text{Total Other Income} \\ &= \text{Rs. } 3,61,936 - \text{Rs. } 1,46,108 \\ &= \text{Rs. } 2,15,828\end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned}&= \text{Total Interest Income} - \text{Total Interest Expenses} \\ &= \text{Rs. } 8,13,458 - \text{Rs. } 3,79,074 \\ &= \text{Rs. } 4,34,384\end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned}\text{BEP in \%} &= \frac{\text{Net Burden}}{\text{Interest Margin}} \times 100 \\ &= \frac{\text{Rs } 2,15,828}{\text{Rs } 4,34,384} \times 100 \\ &= 49.69\%\end{aligned}$$

$$\begin{aligned}
 & \text{BEP in Rs. X Interest Income} \mid \text{BEP in \%} \\
 & = \text{Rs. } 8,13,458 \times 49.69 \% \\
 & = \text{Rs. } 4,04,207
 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 40.42 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
 \text{Margin of Safety} & = \text{Total Interest Income} - \text{BEP Interest Income} \\
 & = \text{Rs. } 8,13,458 - \text{Rs. } 4,04,207 \\
 & = \text{Rs. } 4,09,251
 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned}
 \text{MOS Ratio X} & \frac{\text{Mos}}{\text{Total Interest Income}} \mid 100 \\
 & \text{X} \frac{\text{Rs } 4,09,251}{\text{Rs } 8,13,458} \mid 100 \\
 & \text{X} 50.31\%
 \end{aligned}$$

For fiscal year 2007-08	Amount in Rs.'000'
Total Interest Income	Rs. 9,13,002
Total Interest Expenses	Rs. 4,23,516
Total Other Expenses	Rs. 4,00,101
Total Other Income	Rs. 1,78,983

Net Burden (Fixed Cost)

$$\begin{aligned}
 & = \text{Total Other Expenses} - \text{Total Other Income} \\
 & = \text{Rs. } 4,00,101 - \text{Rs. } 1,78,983 \\
 & = \text{Rs. } 2,21,118
 \end{aligned}$$

Interest Margin (Spread)

$$\begin{aligned}
 & = \text{Total Interest Income} - \text{Total Interest Expenses} \\
 & = \text{Rs. } 9,13,002 - \text{Rs. } 4,23,516 \\
 & = \text{Rs. } 4,89,486
 \end{aligned}$$

We can calculate the BEP in terms of interest income of Nepal SBI Bank as follows:

$$\begin{aligned}
 \text{BEP in \%} &= \frac{\text{Net Burden}}{\text{Interest Margin}} \times 100 \\
 &= \frac{\text{Rs } 2,21,118}{\text{Rs } 4,89,486} \times 100 \\
 &= 45.17\%
 \end{aligned}$$

$$\begin{aligned}
 \text{BEP in Rs.} &= \text{Interest Income} \times \text{BEP in \%} \\
 &= \text{Rs. } 9,13,002 \times 45.17\% \\
 &= \text{Rs. } 4,12,403
 \end{aligned}$$

We find out Nepal SBI Bank's break-even interest income level is Rs. 41.24 Crore.

Margin of Safety can be calculated as follows:

$$\begin{aligned}
 \text{Margin of Safety} &= \text{Total Interest Income} - \text{BEP Interest Income} \\
 &= \text{Rs. } 9,13,002 - \text{Rs. } 4,12,403 \\
 &= \text{Rs. } 5,00,599
 \end{aligned}$$

Margin of Safety ratio (MOS ratio)

$$\begin{aligned}
 \text{MOS Ratio} &= \frac{\text{Mos}}{\text{Total Interest Income}} \times 100 \\
 &= \frac{\text{Rs } 5,00,599}{\text{Rs } 9,13,002} \times 100 \\
 &= 54.83\%
 \end{aligned}$$

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Nepal SBI Bank, Budget Statements and Annual Reports from FY 2000/02 to 2007/08 AD

Appendix -1
Status of Budgeted and Actual Deposits

Rs. (000000)

Fiscal Year	Budgeted Deposits (x)	Actual Deposits (y)	x²	y²	xy
2001-02	742	557	550564	310249	413294
2002-03	641	652	410881	425104	417932
2003-04	619	720	383161	518400	445680
2004-05	685	865	469225	748225	592525
2005-06	965	1100	931225	1210000	1061500
2006-07	1115	1145	1243225	1311025	1276675
2007-08	1311	1372	1718721	1882384	1798692
n =7	Σx = 6078	Σy = 6411	Σx² = 5707002	Σy² = 6405387	Σxy = 6006298

$$\text{Arithmetic Mean of X} = (\bar{x}) = \frac{\sum x}{n} = \frac{6078}{7} = 868.29$$

$$\text{Arithmetic Mean of Y} = (\bar{y}) = \frac{\sum y}{n} = \frac{6411}{7} = 915.86$$

$$\text{Standard Deviation of X} (\sigma_x) = \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$$

$$\begin{aligned} &= \sqrt{\frac{5707002}{7} - \left(\frac{6078}{7}\right)^2} \\ &= \sqrt{815286 - 753920.08} \\ &= \sqrt{61365.92} = 247.72 \end{aligned}$$

$$\text{Standard Deviation of Y} (\sigma_y) = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2}$$

$$\begin{aligned} &= \sqrt{\frac{6405387}{7} - \left(\frac{6411}{7}\right)^2} \\ &= \sqrt{915055.29 - 838794.31} \\ &= \sqrt{76260.98} = 276.15 \end{aligned}$$

$$\begin{aligned} \text{Coefficient of variation (C.V.) of X} &= \frac{\sigma_x}{\bar{x}} \times 100 \\ &= \frac{247.72}{868.29} \times 100 = 28.53 \% \end{aligned}$$

$$\begin{aligned} \text{Coefficient of variation (C.V.) of Y} &= \frac{\sigma_y}{\bar{y}} \times 100 \\ &= \frac{276.15}{915.86} \times 100 = 30.15 \% \end{aligned}$$

$$\begin{aligned} \text{Correlation coefficient (r)} &= \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left[\sum x^2 - \frac{(\sum x)^2}{n} \right] \left[\sum y^2 - \frac{(\sum y)^2}{n} \right]}} \\ &= \frac{42044086 - \frac{6006298 \times 64111}{7}}{\sqrt{\left[5707002 - \frac{6006298^2}{7} \right] \left[6405387 - \frac{64111^2}{7} \right]}} \\ &= \frac{3078028}{3352057.37} \\ &= 0.9183 \end{aligned}$$

Appendix -2
Status of Budgeted and Actual Loans and Advances

Rs. (000000)

Fiscal Year	Budgeted Loans and Advances (x)	Actual Loans and Advances (y)	x ²	y ²	xy
2001-02	548	430	300304	184900	235640
2002-03	451	447	203401	199809	201597
2003-04	560	514	313600	264196	287840
2004-05	609	621	370881	385641	378189
2005-06	793	763	628849	582169	605059
2006-07	944	946	891136	894916	893024
2007-08	1111	1211	1234321	1466521	1345421
n =7	$\sum x =$ 5016	$\sum y =$ 4932	$\sum x^2 =$ 3942492	$\sum y^2 =$ 3978152	$\sum xy =$ 3946770

$$\text{Arithmetic Mean of X} = (\bar{x}) = \frac{\sum x}{n} = \frac{5016}{7} = 716.57$$

$$\text{Arithmetic Mean of Y} = (\bar{y}) = \frac{\sum y}{n} = \frac{4932}{7} = 704.57$$

$$\text{Standard Deviation of X } (\sigma_x) = \sqrt{\frac{\sum x^2}{n} - \frac{x^2}{n}}$$

$$= \sqrt{\frac{3942492}{7} - \frac{5016^2}{7}}$$

$$= \sqrt{563213.14 - 357474.61}$$

$$= \sqrt{205738.53}$$

$$= 223.02$$

$$\text{Standard Deviation of Y } (\sigma_y) = \sqrt{\frac{\sum y^2}{n} - \frac{y^2}{n}}$$

$$= \sqrt{\frac{3978152}{7} - \frac{4932^2}{7}}$$

$$= \sqrt{568307.43 - 3496420.90}$$

$$= \sqrt{218665.53} = 268.12$$

$$\text{Coefficient of variation (C.V.) of X} = \frac{\sigma_x}{\bar{x}} \times 100$$

$$= \frac{223.02}{716.57} \times 100$$

$$= 31.12 \%$$

$$\text{Coefficient of variation (C.V.) of Y} = \frac{\sigma_y}{\bar{y}} \times 100$$

$$= \frac{268.12}{704.57} \times 100$$

$$= 38.05 \%$$

$$\begin{aligned} \text{Correlation coefficient (r)} &= \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \\ &= \frac{7 \times 2888478 - 23925 \times 22967}{\sqrt{7 \times 83332409 - (23925)^2} \sqrt{7 \times 78970891 - (22967)^2}} \\ &= \frac{2888478}{2929997.543} \\ &= 0.9858 \end{aligned}$$

Appendix -3
Status of Budgeted and Actual Interest Expenses

Rs. (00000)

Fiscal Year	Budgeted Interest Expenses (x)	Actual Interest Expenses (y)	x ²	y ²	xy
2001-02	3035	2886	9211225	8328996	8759010
2002-03	3338	2918	11142244	8514724	9740284
2003-04	3672	2559	13483584	6548481	9396648
2004-05	2763	2584	7634169	6677056	7139592
2005-06	3091	3348	9554281	11209104	10348668
2006-07	3791	4123	14371681	16999129	15630293
2007-08	4235	4549	17935225	20693401	19265015
n =7	$\sum x =$ 23925	$\sum y =$ 22967	$\sum x^2 =$ 83332409	$\sum y^2 =$ 78970891	$\sum xy =$ 80279510

$$\text{Arithmetic Mean of X} = (\bar{x}) = \frac{\sum x}{n} = \frac{23925}{7} = 3417.86$$

$$\text{Arithmetic Mean of Y} = (\bar{y}) = \frac{\sum y}{n} = \frac{22967}{7} = 3281$$

$$\text{Standard Deviation of X} (\sigma_x) = \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$$

$$= \sqrt{\frac{83332409}{7} - \left(\frac{23925}{7}\right)^2}$$

$$= \sqrt{11904629.86 \text{ Z } 11681747.45}$$

$$= \sqrt{222882.41}$$

$$= 472.10$$

$$\text{Standard Deviation of Y } (\sigma_y) = \sqrt{\frac{\sum y^2}{n} - \frac{(\sum y)^2}{n^2}}$$

$$= \sqrt{\frac{78970891}{7} - \frac{22967^2}{7}}$$

$$= \sqrt{11281555.86 \text{ Z } 10764961}$$

$$= \sqrt{516594.86}$$

$$= 718.74$$

$$\text{Coefficient of variation (C.V.) of X} = \frac{\sigma_x}{\bar{x}} \times 100$$

$$= \frac{472.10}{3417.86} \times 100$$

$$= 13.81 \%$$

$$\text{Coefficient of variation (C.V.) of Y} = \frac{\sigma_y}{\bar{y}} \times 100$$

$$= \frac{718.74}{3281} \times 100$$

$$= 21.91 \%$$

$$\text{Correlation coefficient (r)} = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 80279510 - 23925 \times 22967}{\sqrt{7 \times 83332409 - 23925^2} \sqrt{7 \times 78970891 - 22967^2}}$$

$$= \frac{561956570 \text{ Z } 549485475}{\sqrt{583326863 \text{ Z } 572405625} \sqrt{552796237 \text{ Z } 527483089}}$$

$$= \frac{12471095}{16626823.67}$$

$$= 0.7500$$

Appendix -4
Status of Budgeted and Actual Interest Income

Rs. (00000)

Fiscal Year	Budgeted Intgerest Income (x)	Actual Interest Income (y)	x ²	y ²	xy
2001-02	5253	3996	27594009	15968016	20990988
2002-03	6237	4697	38900169	22061809	29295189
2003-04	7229	4936	52258441	24364096	35682344
2004-05	5869	5784	34445161	33454656	33946296
2005-06	6971	7087	48594841	50225569	49403477
2006-07	8135	8311	66178225	69072721	67609985
2007-08	9130	9705	833569000	94187025	88606650
n =7	$\Sigma x =$ 48824	$\Sigma y =$ 44516	$\Sigma x^2 =$ 351327746	$\Sigma y^2 =$ 309333892	$\Sigma xy =$ 325534929

$$\text{Arithmetic Mean of X} = (\bar{x}) = \frac{\Sigma x}{n} = \frac{48824}{7} = 6974.86$$

$$\text{Arithmetic Mean of Y} = (\bar{y}) = \frac{\Sigma y}{n} = \frac{44516}{7} = 6359.43$$

$$\text{Standard Deviation of X } (\sigma_x) = \sqrt{\frac{\Sigma x^2}{n} - \left(\frac{\Sigma x}{n}\right)^2}$$

$$= \sqrt{\frac{351327746}{7} - \left(\frac{48824}{7}\right)^2}$$

$$= \sqrt{50189678.5714 - 48648632.16}$$

$$= \sqrt{1541045.84}$$

$$= 1241.39$$

$$\text{Standard Deviation of Y } (\sigma_y) = \sqrt{\frac{\Sigma y^2}{n} - \left(\frac{\Sigma y}{n}\right)^2}$$

$$\begin{aligned}
& X \sqrt{\frac{309333892}{7} + \frac{44516^2}{7}} \\
&= \sqrt{44190556 + 40442331.75} \\
&= \sqrt{3748224.245} \\
&= 1936.03
\end{aligned}$$

Coefficient of variation (C.V.) of X = $\frac{s_x}{\bar{x}} \times 100$

$$\begin{aligned}
&= \frac{1241.39}{6974.86} \times 100 \\
&= 17.80 \%
\end{aligned}$$

Coefficient of variation (C.V.) of Y = $\frac{s_y}{\bar{y}} \times 100$

$$\begin{aligned}
&= \frac{1936.03}{6359.43} \times 100 \\
&= 30.44\%
\end{aligned}$$

Correlation coefficient (r) = $\frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$

$$= \frac{7 \times 325534929 - 48824 \times 44516}{\sqrt{7 \times 351327746 - 48824^2} \sqrt{7 \times 309333892 - 44516^2}}$$

$$= \frac{2278744503 - 2173449184}{\sqrt{2459294222 - 2383782976} \sqrt{2165337244 - 1981674256}}$$

$$= \frac{105295319}{117765084.1}$$

$$= 0.8941$$

Appendix -5
Status of Budgeted and Actual Operating & Other Expenses

Rs. (00000)

Fiscal Year	Budgeted Operating & Other Expenses (x)	Actual Operating & Other Expenses (y)	x²	y²	xy
2001-02	928	891	861184	793881	826848
2002-03	1020	1132	1040400	1281424	1154640
2003-04	1122	1153	1258884	1329409	1293666
2004-05	1248	1282	1557504	1643524	1599936
2005-06	1385	1498	1918225	2244004	2074730
2006-07	1468	1733	2155024	3003289	2544044
2007-08	1585	2273	2512225	5166529	3602705
n =7	Σx = 8756	Σy = 9962	Σx² = 11303446	Σy² = 15462060	Σxy = 13096569

$$\text{Arithmetic Mean of X} = (\bar{x}) = \frac{\sum x}{n} = \frac{8756}{7} = 1250.86$$

$$\text{Arithmetic Mean of Y} = (\bar{y}) = \frac{\sum y}{n} = \frac{9962}{7} = 1423.14$$

$$\text{Standard Deviation of X } (\sigma_x) = \sqrt{\frac{\sum x^2}{n} - \frac{x^2}{n}}$$

$$\begin{aligned} &= \sqrt{\frac{11303446}{7} - \frac{8756^2}{7}} \\ &= \sqrt{1614778 - 1116464.3} \\ &= \sqrt{50134.4} \\ &= 223.91 \end{aligned}$$

$$\text{Standard Deviation of Y } (\sigma_y) = \sqrt{\frac{\sum y^2}{n} - \frac{y^2}{n}}$$

$$\begin{aligned}
& X \sqrt{\frac{15462060}{7} + \frac{9962^2}{7}} \\
&= \sqrt{2208865.71 + 2025335.60} \\
&= \sqrt{4234201.31} \\
&= 428.40
\end{aligned}$$

Coefficient of variation (C.V.) of X = $\frac{s_x}{\bar{x}} \times 100$

$$= \frac{223.91}{1250.86} \times 100$$

$$= 17.90 \%$$

Coefficient of variation (C.V.) of Y = $\frac{s_y}{\bar{y}} \times 100$

$$= \frac{428.40}{1423.14} \times 100$$

$$= 30.10 \%$$

Correlation coefficient (r) = $\frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$

$$= \frac{7 \times 13096569 - 8756 \times 9962}{\sqrt{7 \times 11303446 - 8756^2} \sqrt{7 \times 15462060 - 9962^2}}$$

$$= \frac{91675983 - 87227272}{\sqrt{79124122 - 76667536} \sqrt{108234420 - 99241444}}$$

$$= \frac{4448711}{4700216.20}$$

$$= 0.9465$$

Appendix -6
Status of Budgeted and Actual Other Income

Rs. (00000)

Fiscal Year	Budgeted Other Income (x)	Actual Other Income (y)	x²	y²	xy
2001-02	778	1087	605284	1181569	845686
2002-03	992	962	984064	925444	954304
2003-04	1266	1180	1602756	1392400	1493880
2004-05	1338	1406	1790244	1976836	1881228
2005-06	1194	910	1425636	828100	1086540
2006-07	1461	1147	2134521	1315609	1675767
2007-08	1790	1225	3204100	1500625	2192750
n =7	Σx = 8819	Σy =7917	Σx² = 11746605	Σy² = 9120583	Σxy = 10130155

$$\text{Arithmetic Mean of X} = (\bar{x}) = \frac{\sum x}{n} = \frac{8819}{7} = 1259.86$$

$$\text{Arithmetic Mean of Y} = (\bar{y}) = \frac{\sum y}{n} = \frac{7917}{7} = 1131$$

$$\text{Standard Deviation of X} (\sigma_x) = \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$$

$$\begin{aligned} & X \sqrt{\frac{11746605}{7} - \left(\frac{8819}{7}\right)^2} \\ & = \sqrt{1678086.43 - 1587240.02} \\ & = \sqrt{90846.41} \\ & = 301.41 \end{aligned}$$

$$\text{Standard Deviation of Y} (\sigma_y) = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2}$$

$$X \sqrt{\frac{9120583}{7} - \left(\frac{7917}{7}\right)^2}$$

$$= \sqrt{1302940.43 \text{ Z } 1279161}$$

$$= \sqrt{23779.43}$$

$$= 154.21$$

$$\text{Coefficient of variation (C.V.) of X} = \frac{\sigma_x}{\bar{x}} \times 100$$

$$= \frac{301.41}{1259.86} \times 100$$

$$= 23.92 \%$$

$$\text{Coefficient of variation (C.V.) of Y} = \frac{\sigma_y}{\bar{y}} \times 100$$

$$= \frac{154.21}{1131} \times 100$$

$$= 13.63\%$$

$$\text{Correlation coefficient (r)} = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 10130155 - 8819 \times 7917}{\sqrt{7 \times 11746605 - 8819^2} \sqrt{7 \times 9120583 - 7917^2}}$$

$$= \frac{70911085 - 69820023}{\sqrt{82226235 - 77774761} \sqrt{63844081 - 62678889}}$$

$$= \frac{1091062}{2277456.48}$$

$$= 0.4791$$

Appendix -8

NEPAL SBI BANK LIMITED
Budgeted Profit and Loss Account

Rs. (000)

YEAR	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
INCOME:							
Total Interest Income	525293	623722	722861	586858	697104	813458	913002
Total Other Income	77839	99174	126586	133827	119372	146108	178983
Total Income	603132	722896	849447	720685	816476	959566	1091985
EXPENSES:							
Total Interest Expenses	303485	333838	367227	276343	309056	379074	423516
Operating and Other Expenses	92768	102005	112165	124848	138456	146763	158504
Provision for Loan Losses	95978	66375	73876	190269	100000	80000	80000
Reserve for Exchange Losses	2659	3058	3517	-	-	-	-
Provision for Staff Bonus	10824	21762	29266	13910	26896	35373	42997
Provision for Income Tax	46251	73557	95990	67807	83200	99800	118600
Total Other expenses	248480	266757	314814	396834	348552	361936	400101
Total Expenses	551965	600595	682041	673177	657608	741010	823617
Net Profit After Tax	51167	122301	167406	47508	158868	218556	268368

Appendix -9
NEPAL SBI BANK LIMITED
Actual Profit and Loss Account

Rs. (000)

YEAR	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
(a) Total Interest Income	399631	469740	493598	578372	708719	831117	970513
Commission & discount	36579	29962	30667	42568	40754	52592	50918
Other Operating Income	-	-	-	-	7136	12601	19557
Exchange Fluctuation Income	42535	18510	30616	32357	43060	49463	51989
Non-operating Income	-	-	-	1443	-	-	-
Other Income	29626	47696	56725	64248	-	-	-
(b) Total Other Income	108740	96168	118008	140616	90950	114656	122464
Total Income (a+b)	508371	565908	611606	718988	799669	945773	1092977
(c) Total Interest Expenses	288579	291819	255919	258430	334770	412262	454918
Staff Expenses	26648	33731	32510	37582	50539	53232	74890
Office Operating Expenses	60750	77365	82180	90629	99214	120111	152380
Non-operating Expenses/Losses	1652	2093	571		2926	257	271
Provision for Possible Losses	67551	84173	109560	190269	146657	59377	57464
Provision for Possible Losses Written Back	-	-	-	-	-54178	-78515	-29782
Provision for Non-Banking Assets	-	-	9165	2974	-	-	-
Provision for Staff Bonus	6319	7672	12170	13910	19976	34459	34803
Provision for Income Tax	16029	20305	48680	67807	82762	89681	100263
(d) Total Other Expenses	178949	225339	294836	403171	347896	278602	390289
Total Expenses (c+d)	467528	517158	550755	661601	682666	690864	845207
Net Profit After Tax	40843	48750	60851	57387	117003	254909	247770

Appendix -10

Performance Highlights of Nepal SBI Bank Ltd.

Particulars	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
<u>Profitability</u>								
Interest Income	3996.31	4697.40	4935.98	5783.72	7087.19	8311.17	9705.13	14604.46
Interest Expenditure	2885.80	2918.20	2559.19	2584.30	3347.70	4122.62	4549.18	8247.00
Fee, Commission and Exchange Income	791.15	484.72	612.83	749.25	838.14	1020.55	1029.07	1401.31
Other Income	43.73	54.94	82.20	112.75	71.37	126.01	195.57	527.90
Operating Expenses	607.50	773.65	821.80	906.29	992.14	1201.12	1523.80	2239.66
Operating Profit	395.90	366.17	737.67	846.88	1684.89	3007.90	3533.25	4423.66
Profit Before Tax	568.73	690.53	1095.32	1251.93	1997.64	3445.90	3480.34	4430.32
Profit After tax	408.44	487.48	608.52	573.87	1170.02	2549.09	2477.71	3163.73
<u>Shareholders Fund</u>								
Total Shareholders Fund	5603.47	5698.52	6266.37	6890.13	9823.74	11632.91	14146.45	17126.07
Share Capital	4248.93	4251.57	4268.76	4318.66	6402.36	6477.98	8745.28	8745.28
Reserves	1354.53	1446.95	1997.61	2571.47	3421.38	5154.92	5401.17	8380.79
<u>Liabilities</u>								
Deposits Accounts	55724.70	65228.17	71983.27	86547.74	110020.41	114452.86	137153.95	279572.21
Borrowing	5587.92	658.26	1171.78	4696.29	8124.29	10153.65	18274.80	9274.66
Bills Payable	0.88	-	-	311.24	462.39	488.56	751.15	629.47
Other Liabilities	3294.44	4078.32	4982.64	5008.34	1927.57	2284.03	1548.11	2564.40
<u>Assets</u>								
Advances (Net)	42992.49	44687.20	51436.62	62138.79	76267.36	94604.51	121136.98	151317.48
Investments	5990.56	12072.75	19075.21	26076.80	36107.75	26594.53	30888.87	132861.82
Cash, Short term Funds & Statutory Deposit	16199.62	13335.34	8644.27	8468.58	14813.58	14726.90	16469.73	19039.06
Net fixed Assets	655.88	710.34	623.50	664.52	667.12	972.19	1202.22	2535.81
Other Assets	4372.86	4857.64	4624.46	6105.05	2502.57	2113.88	2176.65	3412.65
<u>Ratios</u>								
Return on Shareholders Equity (ROE)	7.29	8.55	9.71	8.33	12.04	22.10	17.64	18.58
Return on Net Fixed Assets (ROA)	62.27	68.63	97.60	86.36	175.38	262.20	206.09	124.76
Percent of Net Profit/ Gross Income	8.03	8.61	9.95	7.98	14.63	26.95	22.67	19.14
Weighted Average Interest Rate Spread	3.84	4.08	3.55	3.68	3.33	3.01	3.11	2.84
Total Operating Expenses/Total Assets	5.35	5.40	4.46	3.74	3.72	4.21	3.97	3.79
Total Credit/Deposit	82.27	73.52	76.85	77.87	69.32	82.66	88.32	55.84
Cash Dividend on Share Capital	-	8.00	-	-	5.00	12.59	-	2.11
Dividend (Including Bonus)	-	8.00	-	-	5.00	47.59	-	42.11
Price Earning Ratio (PE)	41.72	22.24	21.54	25.21	33.49	29.89	53.34	52.52
<u>Share Information</u>								
Earning Per Share	9.61	11.47	14.26	13.29	18.27	39.35	28.33	36.18
No of Shares	4248933	4251573	4268759	4318656	6402361	6477984	8745278	8745278
<u>Other Information</u>								
No of Employees	141	148	151	164	174	189	249	323
Number of Branches	11	11	13	13	13	15	15	32

