# CHAPTER – I

# INTRODUCTION

## 1.1 Background of the Study

The speedy development of any country in this modern era is depends upon to some extent with 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 unutilized natural sources, miserable agriculture, deficit trade, mass poverty, illiteracy and so forth. Agriculture is the main occupation of almost village people but no scientific methods of agriculture have yet been implemented. It is one of the richest countries in the world in terms of natural resources.

A tiny landlocked country is south Asia, Nepal remains as one of the 48 least developed countries in the world. The country's per capita income has been growing at little over two percent annum at a situation when more than two-fifth of the country's population is in absolute poverty. Nepal's current economic situation is best with nearly half of the population living below poverty line, and unemployment and disguised unemployment together depriving one half of the labor force. Investments in productive sectors increase the economic activities. The unutilized financial resources should be diverted towards productive sector in order to increase the economic activities. To develop the Nepalese economy, the financial institutions should be established. The participations of the private sectors play ever more important role for the economic development. Hence, various banks, insurance companies, financial companies etc. have been established in the private sector and government sector as well to develop the economy to develop the economy of the country, their providing their active participation for the economic development. But however even with the rapid development and expansion of financial institutions, the country has not been able to achieve the desired income so far which is due to the poor capital market condition of our country and due to the early stage of economic growth.

As aforementioned, the financial institutions play a vital role in the economic development e.g. the banks, especially the commercial banks; finance companies and insurance companies have been established.

The Profit planning and control mechanism is being widely practiced in manufacturing industries but it is relatively new in non-manufacturing/service, industries/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 goal.

Every company or institution is established based on the definite goals and objectives. According to the objectives, the company performs is tasks. Mainly two types of institutions such as profit oriented and service-oriented instructions are established, but most of them are profit oriented because profit is the lifeblood 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 objectives. Profit do not just happen, profits are managed (Lynch & Williamson, 1989: 125). 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 to each other.

Profit maximization is the basic objectives of a firm and to make it reliable service should render to its customers. Profit is a device to measure efficiency of a firm.

Planning is the first essence of a management and all other functions are performed with the framework of planning. Planning means deciding in advanced what is to be done in future. Planning starts from forecasting and predetermination of future events. The main objective of planning in business is to increase the chance of making profit. The budget is the primary planning operation document committed to performance. In this sense budget is also called a profit planning.

Planning is the process of developing enterprise objectives and selecting a future course of action to accomplish them. The term comprehensive profit planning and control it defined as a systematic and formalized approach for performing significant phase of the management planning and control function (Welsch, et al., 2001: 45).

- The development and application of broad and long range objectives of the enterprise.
- The specification of enterprise goals.
- A long range profit plan developed in broad terms.
- A short range profit plan detailed by assigned responsibilities (divisions, product, project etc.).
- A systematic periodic performance reports detailed by assigned responsibilities, and
- Follow-up procedures.

As like in the other profit oriented organizations, a commercial bank has also to make reasonable profit for its survival. Most of the commercial banks are formed as a company with joint stock and the shares being traded at stock exchanges. Therefore, profit made by them is the important parameter for measurement of effectiveness efficiency of them.

## 1.2 Statement of the Problem

The profit planning and control tool is a newly developed concept as a crucial way in the business organization. The concept of profit planning has not even familiarized in the most of the business concern. By proper profit planning a business can be managed more effectively and efficiently.

Every financial institutions, as a commercial bank must make profit out of its operations for its survival and fulfillment of the responsibilities assigned. Major activities of a commercial bank comprise mobilization of resources, which involves cost, and profitable deployment of those resources, which generates income. The different interest income over the interest cost, which is popularly called as interest margin, can be considered as the contribution margin in the profit of the bank. The bank attempts to compensate the other operational expenses by generating other income out of non-fund based business activities of the bank.

The present study aims to analyze and examines the application of PPC tool in the commercial banks taking a case of Everest Bank Ltd. Nabil Bank Ltd. and Bank of Kathmandu. In this ground, the study deals with the following issues for the purpose of this study.

- How properly the collected fund has been used?
- What is the profitability position of the banks?
- What is the trend position of banks in terms of deposits collection and net profit?
- What is the effect of investment decision on profitability position of the banks?
- Is there significant relationship between loan and advances, total interest earned to total outside assets etc?

## 1.3 Objectives of the Study

The basic objective of the study is to analysis the profit planning policy of commercial banks with reference to NABIL. The specific objectives of the study are:

- To identify the investment priority sectors of Commercial Banks.
- To assess the impact of investment on profitability.
- To analyze and forecast the trend and structure of deposit utilization and its projection for five years of Commercial Banks.
- To provide suggestions and possible guidelines to improve investment Policy and its problems.
- To study the growth of the business of the bank over the period.

## 1.4 Significance of the Study

Profit is the life blood of the any organization because the continuity or survival of the each and every organization is depends upon the earning capacity of that organization. This study is concerned with the profit planning in the commercial bank. It attempts to examine and analyze the applicability of profit planning system in the bank. Profit planning process significantly contributes to improve the profitability as well as the overall financial performance of an organization with the help of the best utilization of resources.

Profit planning is a part of an overall process and is an area in which finance function plays major role. It is now an important responsibility of financial manager while activities of those require an accounting background. It's also need knowledge of business principles, economic statistics and mathematics. Hence profit planning represents on overall plan of preparation for a definite period of time.

Profit planning is crucial for management. Profit is the most important indicators for judging managerial efficiency and does not just happened for this every organization has to manage. Various functional budgets are the basic tools for proper planning of profit and control. Therefore, this study will be useful for those who want to know the profit-planning tool and also for next researcher as a reference.

## 1.5 Limitations of the Study

The study confines only profit planning aspect of the Nabil Bank Ltd. So, the limitations of this study are:

1. This study focuses on profit planning control and its application in the Nabil Bank.
2. Only profit planning aspect of Nabil Bank has been analyzed.
3. This study covers the related data of the banks from FY 2004/05 to 2008/09.
4. The study is mostly based on secondary source of data.

## 1.6 Profile of NABIL Bank Ltd.

### 1.6.1 Establishment:

Nabil Bank Limited, formerly known as Nepal Arab Bank Limited, Was incorporated on 29 Baisakh 2041(11May 1984) as the first foreign joint venture bank in Nepal with the Authorized capital of Rs.100 million and called-up share capital of Rs 30 million. It commenced its operation from 12 July, 1984 with the Technical Service Assistance and 50% shares of Dubai Bank Limited (Acquired in April 1985 by Emirates Bank International Limited, Dubai) and remaining 50% shared among

Nepal Industrial Development Corporation 10%, Rastriya Beema sansthan 9.67%, Nepal Stock Exchange Limited 0.33% and Nepalese General Public 30%. Authorized capital, issued capital and paid up capital mid July 2009 were 16,000,000,000, 965,747,000 and 965747,000 respectively.

**1.6.2 Branches:**

Nabil provides a full range of commercial banking services through its 17 points of representation across the kingdom and over 250 reputed correspondent banks across the globe. The head office of the bank is located at Kantipath, Kathmandu. Besides the head office, the bank has 28 numbers of branches within the country.

**1.6.3 Banking Product & Services:**

Nabil Bank has been providing full-fledged Commercial banking services to the clients. The facilities provided by the bank are as follows:

- Deposits.
- Loans and advances.
- Export finance.
- Import finance.
- Bank Guarantees.
- Remittances.
- Bill Purchase.
- SWIFT facility for remittances and Letter of Credit.
- Lockers.
- Tele banking.

**1.6.4 Technology:**

From its inception, the bank has been providing the services with latest technologies and computerized equipments. The bank is providing Tele banking facilities, which enables the clients to get the information as well as statements through fax whenever required simply by dialing a phone. The bank is using world-renowned software from Infosys Technologies System, Banglore, India. The bank has also obtained a membership of SWIFT which has enables it to transmit messages of remittances, Letter of credit etc. to other member banks in no time.

## 1.7 Organization of the Study

**Chapter I - Introduction**:

This chapter includes background of the study, statement of problem, objective of study, significance of study, limitation of the study and profile of Nabil Bank Ltd.

**Chapter II - Review of Literature**

This chapter includes the concept of commercial banks, conceptual framework of relevant terminologies, the summary of the financial statements of the commercial banks and review of previous works and publications.

**Chapter III - Research Methodology**

This chapter includes the research design, data collection procedures and the tools and techniques to be employed for the analysis of the data.

**Chapter IV - Data Presentation and Analysis**

This part of the study includes presentation and analysis of financial figures of bank. This presentation and analysis helps to come to the ultimate conclusion of the study. The financial figures of the individual institutions as well as of the industry as a whole are dissected and analyzed in detail to arrive at the conclusion. The analysis is made on the basis of various tools and techniques like ratio analysis, comparisons and trend analysis. This part also contains the list of major findings derived from the analysis.

**Chapter V - Summary, Conclusion and Recommendations**

Summary of the findings of the study are outlined in this chapter. Conclusion on the position of the Nabil bank is presented in this section. Recommendations on the solutions to the foreseen problems foreseen problems are also recommended which could be helpful in better performance in the forthcoming years.

# CHAPTER - II
# REVIEW OF LITERATURE

A literature review is an account of what has been published on a topic by accredited scholars and researchers. A review may be a self-contained unit an end in itself –or a preface to and rationale for engaging in primary research. A review is a required part of grant and research proposal and often a chapter in thesis and dissertations. The purpose of writing the literature review is to convey the reader what knowledge and ideas have been established on a topic and what their strength and weaknesses are.

This chapter sheds light on the conceptual framework of the commercial bank. This chapter is also concerned with the review of literature relevant to the financial statements of commercial banks, specially the contents of the Balance sheet and the Profit & Loss Account. The chapter also provides insight into the findings of earlier studies through the review of books, publications and previous studies.

This chapter devotes to review some of the existing literature regarding the profit planning concepts. In this regard, various books, journals and articles concerned to this topic have been reviewed. The first part of the chapter deals with the conceptual framework of the study and the second part is concern with the review of previous articles, journals and dissertation.

## 2.1 Conceptual Framework

### 2.1.1 Concept of Profit Planning

Profit Planning is a comprehensive statement of intentions expressed in financial terms for the operation of both short and long period. It is a plan of the firm's expectation and is used as a basis for measuring the actual performance of managers and their units. A profit plan has an immense value in management; it helps in planning and coordinating if used appropriately, but not a replacement for management. Profit planning is a comprehensive and coordinated plan expressed in financial terms for the operations and resource of an enterprise for some specific period in the future (Fremgen, 1973: 12).

Profit Planning is a predetermined detailed plan of action developed and distributed as a guide to current operations and as a partial basis for the subsequent evaluation of performance. Thus it can say that profit planning is a tool which may be used by the management in planning the future course of actions and controlling the actual performance (Gupta, 1992:3). The term comprehensive profit planning and control it defined as a systematic and formalized approach for performing significant phase of the management planning and control functions.

A profit planning and control program can be one of the more effective communication networks in an enterprise. Communication for effective planning and control requires that both the executive and the subordinate have the same understanding of responsibilities, ensure a degree of understanding not otherwise understanding of responsibilities, and ensure a degree of understanding not otherwise possible. Full and open reporting in performing reports that, fouls on assigned responsibilities likewise enhance the degree of communication essential to sound management, (Welsch, et al., 2001: 66).

Profit Planning involves streamlining activities in order to get employees profit minded and to secure maximum benefit from minimum effort and expenditure. Best results seem to be obtained by assigning a profit planner to investigate all the footers affecting the profit obtained from a single product; the planner is given the right to prove the economics, the organization. The mode of operations, the pricing, the marketing or any fact of making and selling the product that in his judgment affects profit accruing from that product.

A profit plan is an advance decision of expected achievement based on the most efficient operating standards in effect or n prospect of time. It is established against which actual accomplishment is regularly compared (Niel, 2001:305). Profit Planning through volume of cost analysis, however, is a modern concept of management planning tools designated primarily for industrial enterprises. It involves a study of what a business cost and expenses should be and will be at different level of operations and it include a study of the resultant effect due to this hanging relationships between volume and cost (Young Dong, 200:74).

### 2.1.2 Concept of Profit

Profit is the basic elements of profit plan so that the concept of profit planning may not be completed and meaningful in absence of the clear-cut well defined idea of profit. Oxford dictionary defines profit as a (a) financial gain and amount of money gained in business especially the difference between the amount earned and the amount spent (b) Advantage or benefits gained from something (Hornby and Cowie, 1992:63). According to some theories, profits are the factor payment for talking the risk for agreeing to take what is left over after contractual outlays have been made. In the second type of profit theory they viewed as a wage for the service of innovation. Profits in this theory are tied to dynamic development. Profit around which all enterprises activities directly or indirectly revolve play the significant role for judging the managerial efficiency. In absence of profit nobody can think about the long-term survivability of the enterprises.

### 2.1.3 Concept of Planning

Planning is the first essence of management and all other functions are performed within the framework of planning. Planning means deciding in advance what is to be done in future. Planning starts from forecasting and predetermination of future events. Planning is the whole concept of any business organization with proper and effective planning. No firm can accomplish its predetermined goals and objectives. Hence it is the life blood of any organization which helps them to run efficiently in competitive environment. Planning is a techniques were by the use pattern of resources is carried out (Agrawal and Kundom, 1989:24).

A planning process includes setting goals, evaluating resources forecasting by different methods and formulating a master plan. Planning depends upon the organized objectives. For the planning purpose a firm's objectives can distinguish mainly three types, the first is prime, the second is instrumental objectives are aims for accomplishment of more basis aim. For this purpose the company has established divisional departmental and individual job objectives. Specific objectives are those objectives that have been specified as to tome and magnitude which is known as goals. As a result of specifying a time period and a target amount, this goal is capable of giving specific guidance to various senses of management planning. Objective setting of a firm is very difficult task. Unfortunately, most top management fails to develop a clear and operational statement of company objectives. More carefulness is necessary for this tedious job and it stated from firm's objectives. More carefulness is necessary for this tedious job. Carefully stated firm's objectives would yield at least the following benefits.

1. Company objectives provide the ultimate criteria for resolving difficult company decisions and
2. Company objectives are the basis for long-range profit planning.

Planning is the process of developing enterprises objectives and selecting future course of action to accomplish them. It includes (Welsch, et al., 2001: 127).

1. Establishing enterprises objectives,
2. Developing premises about the environment in which they are to be accomplished,
3. Decision making,
4. Identifying activities necessary to translate plans in to action, and
5. Current re-planning to current deficiencies.

The planning processes both short and long term is the most crucial component of the whole system. It is both foundation and the bond for the other elements because it is through the planning process that we determine what we are going to do, how we are going to do it and who is going to do it. It operates as the brain centre of an organization and like the brain it both reason and communicate (Welsch, et al., 2001: 45).

Planning is the conscious recognition of the futurity of present decision (Drucker, 1989:87). 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 condition that state of the enterprise that determines its density

(Pandey, 1991:325).

Planning could be taken as the tools of achieving organizational goals efficiently and effectively from the selection of various alternatives with in a acceptable time frame. The essence of planning is:

1. To accomplish goals.
2. To reduce uncertainty.
3. To provide direction by determining the course of action in advance.

Planning is determined course of action for achieving organizational goals or objectives effectively and efficiently at a fluid environment with a certain time frame through the selection of various alternatives. On the other hand it holds accountability and responsibility about result to individual. A full appreciation of the firm task requires distinguishing among three types of company's activities which we call strategic planning, management control and operational control. The strategic planning is an important function of top management. Planning requires the management to setting a future state toward which effort will be directed i.e. objective, assessing the organization's resources, i.e. what the organization is going to work with, assessing the current and future environment with which the organization must connected to achieve its goals and lately determine how and when to allocate resource accomplish the objective. Planning on the other hand is selecting objective and determining a course of action including allocation of resources in order to achieve those objectives in a specific time period. Planning states what, when, and how things will be accomplished.

### 2.1.4 Types of Planning

**Corporate Planning**

The concept of corporate planning was first introduced and started in the United State in the late 1950's and nowadays it has been using in several companies in all over the world. The premises of the corporate planning are as follows (Robertson, 1968:245).

1. Before drawing up a plan which is designed to decide something what the corporation wants to do.

2. In these days of rapid change it is necessary to look ahead as for as possible to anticipate these changes.
3. Instead of treating a company as a collection of departments treat it as a corporate whole, and
4. Take full accounts of the company's environment before drawing up and plan.

He has also defined corporate planning as, it is to determine the long term goals of a company as a whole and then to generate plans designated to achieve these goals bring in mind probable change in its environment.

**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 objective 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. Management planning and control is the process carried on within the framework established by strategic planning. Long range 5 to 10 years varying with the enterprise sometimes extended to 10 years. It is one of the most difficult times span involved in planning as many problems in short range planning can be traced to the absence of clear sense of direction and the practice which a comprehensive long-range plan provides. Basically, the long-range planning is more important for broad and long living enterprises. A long-range planning is closely concerned with the concept of the corporation as a long living institution. (David, 1964:298). The planner must include the following factors in his/her plan from the analysis of available information.

a. Probable future opportunity
b. Uncertainty and
c. Challenges

Long range planning is the continuous process of making present entrepreneurial (risk taking) decision. Systematically and best possible organizing efforts is need to carry out these decisions and measuring the result of these decisions against the expectations through organized systematic feedback (Drucker, 1964:165). It is a decision making process. Such decision should be related about:

Determination of goals, objectives and strategies.

- Accession of new sources of funds.
- Organization design and structure etc.

**Tactical/Short Term Planning**

A tactical planning is done at all level and involves directing the organizations activities to achieve overall strategic objectives with the organization's mission and policies. Standing plans provide consistency and efficiency for non going operations, and single use plans are developed for unique situation. Projects are short term plans designed to achieve objective within large scale programs. Short term plans cover about a year, and are less formal and detailed than long range plans, which usually cover more than three months.

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 then some. What 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 a long period makes planning of questionable value. (Horold and Cyric, 1964 :45).

### 2.1.5 Forecasting

The forecasting is to take future decision at present form by the analysis of relevant factors of past and present. Forecasting is not only imagination or guess matter, it is related with certain assumption. Its main aim is to reduce uncertainty and risk in future and attain conformity to achieve desired goals or objectives as far as possible.

It should be realized that budgeting is not merely forecasting although forecasting is form of the basis of budgeting. Forecasting is estimate of the future environment with in which the company will operate. Budgeting or planning on the other hand involves the determination of what should be done, how the goals may be reached and what individual units are to be assumed responsible and be held accountable. Budget provides orderly way to attain goals and also provides a time schedule for future action to produce, measure result ( Pandey, 1991:35).

When an estimate of future condition is made on the systematic basis, the process is referred to as forecasting. Its aim is to reduce the area of uncertainty that management decision making with respect to cost and capital investment.

**2.1.6 Forecasting Vs Planning**

Planning and forecasting often are confusing of being the same. But they are not same, although related. The notion that planning and forecasting are different functions deserves special mentions here. Forecasting is generally used to predict what will happen, given a set of circumstances assumptions. Planning on the other hand, involves the use of forecast to help to make good decisions about most attractive alternatives for the organization. Thus a forecast seeks to describe what will happen, where as a plan is based on the notion that by taking certain action how the decision maker can affect subsequent events in a given situation and thus influence the final results, in the direction desired. Generally speaking forecasting and forecast are inputs to the planning process.

**2.1.7 Control**

After being clear about the concept of profit and planning we move towards the third component of profit planning and control i.e. control. The dictionary meaning of control is,

1. Have a power or authority over somebody or something
2. Regular something
3. Management, guidance, restriction
4. Standard of comparison for checking the results of the experiment. (Hornby, 1992:32)

Controlling can be defined as a process of measuring and evaluating actual performance of each organizational component of an enterprises and initiating corrective action when necessary to ensure efficient accomplishment of enterprises objectives, goals, policies and standards. Planning establishes the objectives, goals, policies and standards of an enterprise. Control is exercised by using personal evaluation, periodic performance, reports and special reports.

Control is an ambiguous word; it means the ability to direct oneself and one's work. It can also mean domination of person by another (management). Objectives are the basis of control in the first sense, but they must never become the basis of control as in the second for this would defeat their purpose, indeed one of the major contributions of management by substitute management. By objective is that it enables us to substitute management by self control for management by dominant (Drucker , 1954:20)

An important aspect of control that is frequently overlooked is its relationship to the point of action or at the time of commitment. Effective control requires feed forward. In other words, it is assumed that objectives that objectives, plan, policies, and standards have been developed and communicated to those manager who have the related performance responsibilities.

Thus, control must necessarily rest upon the concept of feedback, which requires performances measurements and triggers corrective action designed to ensure attainment of the objectives. When plans become operational control must be exercised to measure progress. In some cases, control also results in the revisions of prior plans and goals or in the formulation of new plans changes in operations and reassignment of people. Control approach must be tailored to the characteristics of the operation and the organization structure. A control process designed to help monitor the periodic activities of business and of each responsibility center has the following phases:

i. Compare actual performance for the period with the planned goals and standards.
ii. Prepare a performance report that shows actual results, planned results and any differences between the two (i.e Variation above or below planned results)
iii. Analyze the variations and the related operations to determine the underlying

causes of the variations.

iv. Develop alternative course of action to correct any deficiencies and learn from the successes.

v. Make a choice (corrective action) from the set of alternatives and implements it.

vi. Follow up to appraise the effectiveness of the correction. Follow with feed forward for re-planning, (Welsch, et al., 2001: 188).

The comparison of actual result with planned goals and standard constitutes measurement of the effectiveness of control during a specified past period. This provides the basis for effective feedback. The facts shown in a performance report cannot be changed; however the historical measurement may lead to improved control in the future. The significant concept here is that objectives policies and standards fulfill two basic requirements in the overall control process, namely (1) feed forward-to provide a basis for control at the point of action. (2) Feedback-to provide a basis for measurement of the effectiveness of control after the action has taken place. Moreover, feedback is of instrumental in re-planning.

### 2.1.8 Budgeting and Budget

Budgeting is a forward planning and involves the preparation in advance for the quantitative as well as financial statement in indicate the intention of the management in respect of the various aspects of the business. A budget is a comprehensive and coordinated plan expressed in financial term for the operation and source of an enterprise for some specific period in the future (Pandey, 1991:98).

As regards the term 'Budget' it can be visualized as the end result of the budgeting. If Budgeting is the procedure for preparing plan in respect of future financial requirements, the plan when presented in written form is called budget. Budgeting in facts is a managerial technique and a business budget is such a written plan in which all aspects of Business operations with respect to a definite future period are included. It is a formal statement of policy, plan, objectives and goals established by the top-level management in respect of some future period (Gupta, 1981:136).

A budget is forecast, in detail, of the results of an officially recognized programmed of operations based on the highest reasonable expected operating efficiency.

Budget is defined as a comprehensive and coordinated plan, expressed in financial terms for the operations and resources of enterprises for some specified period in the future (Fregmen, 1976:256). According to his definition the essential elements of a budget are:

- Plan
- Operations and Resources
- Financial Terms
- Specified Future Period
- Comprehensiveness
- Co-operation

Therefore, we can say that budget is a tool, which may be used by the management in planning the future course of action-and in controlling the actual performance.

**2.1.9 Budgeting: As a Device of Profit Plan**

Budgeting is a forward planning. It serves basically as a device (tool) for management, control; it is rather pivot of any effective scheme of control. Budgeting is the principal tool of planning and control offered to management by accounting functions (Welsch, et al., 1999:346). The prime objective of budgeting is to assist in systematic planning and in controlling the operations of the enterprises. In fact budgeting is best sources of communication and an important tool in the hands of management. Since, budgeting deals with fundamental policies and objectives, it is prepared by top management. A formal budget by itself will not ensure that a firm's operations will be automatically geared to the achievement of the goals set in the budget. For this to happen, the to A-level managers and lower level employees have to understand the goals and support them and co-ordinate their efforts to attain them.

Budgeting is a device of a planning and control that serves as a guide to conduct operation and a basis for evaluating actual results. Actual results can be judged being satisfactory or unsatisfactory in the light of the relevant budgeted data and also in the light of changes in conditions. Company controls operations through its budgeting and responsibility reporting system. Top executive are able to control every area of the organization through a systems of budgetary planning and control reporting by responsibility area.

Budgets are an important tool of profit planning. The main objectives of budgeting are:

- Explicit statement of expectations
- Communication
- Co-ordination
- Expectation as a framework for judging performance.

### 2.1.10 Essentials of an Effective Budgeting

An effective budgeting system should have some essential feature to ensure best results. The following are the chief characteristics of an effective budgeting.

#### 1. Sound Forecasting

Forecasts are the foundation of budgets, these forecasts are discussed by the executives and when most profitable combinations of forecasts are selected they becomes budgets. The sounder are the forecasts better result would come out of the budgeting system.

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

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

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

An efficient adequate and best organization is imperative for budget preparation and its operation. Thus a budgeting system should always be supported by a sound organization structure demarcating clearly the lines of Authority and responsibility. Not only this, there should be a true delegation of authority from top to low levels of management. This will provide adequate opportunity to all executives to make decisions and also to participate in the function of budget preparation. Thus, an efficient organization helps not only in budget co-ordination but it also plays important role in budget co-ordination and operation.

**4. Formation of Budget Committee**

As mentioned earlier, budget committee receives the forecasts and targets of each department as well as periodic reports and finalizes. And also approves the departmental budgets. Thus in order to make a budgeting system more and more effective, a budget committee should always be set up.

**5. Clearly Defined Business Policies**

Every budget reflects the business policies formulated by the top management. In other words budgets should always prepare talking in to account the policies set for particular department or functions. But for this purpose, policies should be precise and clearly defined as well as free from any ambiguity.

**6. Availability of Statistical Information**

Since budgets are always prepared and expressed in quantitative terms. It is necessary that sufficient and accurate relevant that should be made available to each department. Such data may not be available from accounting system alone and therefore they may be processed through statistical technique. These data should be as far as possible, reliable accurate and adequate.

**7. Support of Top Management**

If a budget program is to be made successful, the sympathy of each member of the management team, it should start preferably from top level (chairman). The enthusiasm for budget operation as well as direction for it should initiate and come from top.

**8. Appropriate Reporting System**

An effective budgeting system also requires the presence of a proper feedback system. As work proceeds in the budget period, actual performance should not only be recorded but it should also be compared with budgeted performance. The variations should be reported promptly and clearly to the appropriate levels of management.

**9. Motivational Approach**

All the employees or staff other than executives should be strongly a properly motivate towards budgeting system. In an organization it is needed to make each staff member feel too much involved in the budgeting system. To meet this end motivational approach towards budgeting should be followed.

### 2.1.11 Fundamental of PPC

Comprehensively profit planning and control is one of the more important approaches that has been developed to facilitate effective performance of the management process. The concepts and techniques of PPC have wide application in individual business enterprises, government units, charitable organizations and virtually all group endeavors.

The fundamental concepts of PPC include the underlying activities or tasks that must be carried out to attain maximum usefulness from PPC. The fundamentals of PPC are (Welsch, et al., 2001:235):

1. A management process that includes planning organizing, staffing, leading and controlling.
2. A managerial commitment to effective management participation by all levels in the entity.
3. An organization structure that clearly specifies assignments of management authority and responsibility at all organization levels.
4. A management planning process.
5. A management control process.
6. Continuous and consistent co-ordination of all the management functions.
7. Continuous feed forward, feedback, follow up, and re-planning through defined communication channels (both downward and upward).
8. A strategic profit plan.
9. A tactical profit plan.

10. A responsibility accounting system.
11. A continuous use of the exception principle.
12. A behavior management program

### 2.1.12 Profit Planning and Control Process

Profit planning and control has its own process from preparing plans to implementation and feedback. A PPC Program includes more than the traditional idea of a periodic or master budget rather it encompasses the application of a number of related management concept through a variety of approaches techniques and sequential steps (Welsch et. al., 2006:71). The process of PPC are listed below:

a. **Identification and Evaluation of External Variables:**

   Organization is always affected by two variables i.e. internal and external. Management always encourages about the variables which are directly and indirectly impact to the enterprises. Variables, which have a direct and significant impact on the enterprises, re called relevant variable. Variables may have their different relevancy according to the market nature.

b. **Design of Goals and Objectives of the Enterprises:**

   A major responsibility of management is to design the objectives & goals of the enterprise. Executive management can specify or re-state this phase of the PPC process based on realistic evaluation of the relevant variables. The management defines the purpose of the enterprise; clarify the character, environmental analysis, others decisions are taken in favor of the company.

c. **Strategy formulation and Implementation**:

   Strategy should be set out for the betterment of the enterprises. Timely implementation and evaluation is major consideration of such strategy to achieve planed goals and objectives.

d. **Management PlanningInstructions:**

   Management planning instruction is communication between top management to lower level of management and it should adopt the basic of full communication. Top management establishes a planning foundation. On the basis of this planning foundation. On the basis of this planning foundation. On the basis of this planning foundation the statement of planning guidelines is set as executive management instructions.

e. **Project Plan Preparation & Evaluation:**

Project plans are different from periodical plan. It is a long term strategy. It is prepares and evaluated in the profit planning & control process. Consistent with this approach during the formal planning cycle, management must evaluated decide up on the plan states of each project in process and select any new projects to be initiated during time dimension covered by the upcoming strategies and tactical profit plans.

f. **Development of Long term and Short term Profit Plan:**

In the profit planning and control process developing long term and short term profit plan is a major task of management executive. Certain information are collected from related sources, to develop profit plan general format is available to management Two profit plans completed, management should subject the entire planning payable to a careful analysis and evaluation to determine whether overall plans are the most realistic set that can be develop under the circumstances. When this point reaches the two profit plans should be formally approved by the top executive and distributed to the related managers.

g. **Implementation of Profit Plan:**

Formulation is one of the major tasks of manager whereas implementation is more and more important factor of profit planning & control. The profit plan should be implemented by every concern designation. Implementation of plans and strategy is a function of management. Effective management at all levels requires that enterprise objectives goals, strategies, and policy to be communicated and understood by subordinates.

### 2.1.13 Merits and Demerits of Profit Planning and Control

Profit planning and control has both merits and demerits even though merits are dominant one. Merits of profit planning and control listed below.

1. Profit planning and control brings organizational policy in to action.
2. Organizational structure will be sound and effective by the means of PPC
3. Historical statistical and accounting data is used by PPC.
4. It compels management to plan for the most economical use of labor material a capital.

Efficiency and inefficiency can be measured by PPC.

Management attention can drawn by PPC for the general business condition

5. It reduced cost by increasing the span of control because fewer supervisors are needed.
6. PPC creates understanding between management and their co-workers.
7. PPC reduce the uncertainty and gives guidelines to achieve organizational goal.
8. It provides to all level of management the habit of timely, careful, and adequate consideration of the relevant factors before receiving important decisions.

Profit planning and control model can't be assumed that it is free from problem. Some of its demerits listed below.

- Preparing profit plan is a difficult task.
- Some of traditional types manager don't like to prepare profit plan.
- It is not realistic to whiteout and distributes goals, policies and guidelines to all the supervisors.
- It takes away management flexibility.
- It creates all kinds of behavioral problems
- It adds a level of complexity that is not needed.
- The manager's supervisors and other employees do not like the budget.

### 2.1.14 Concept of Commercials Banks

The term 'Bank', signifies the place where we keep our money for safe keeping as well as for earning some interest or the place from where we borrow money as loan. As regard to the borrowing money from the Bank, we may consider its function as that of money lender in our society. But a bank a moneylender is different in the sense that the former lends the money which is principally collected from their depositors while later does so from its own resources. The Random House Dictionary of the English Language defines the bank as an institution for receiving money and is some cases, issuing notes and transiting other financial business (Stein and Urdang, 1985:29).

Banks refer to an institution, which perform the activities related with money and credit. Banks have been traditionally regarded as merely the purveyor of money. But today they are not merely purveyor of money but creator or manufacturer of money in an economic system. Maclead, in this book 'theory of credit' has defined the bank not only as an institution, that borrows and lend money but also the institution for creating credit. In the opinion of Sayers. Banks are the institutions whose debts usually are referred to as bank deposit and are commonly acceptable in final settlement of other people's debt. He has taken the bank deposit as the debt owe by bank and that particular depositor can set off his liability with his creditor by the deposit in the Bank to the extent of his deposit amount.

The Commercial Bank Act 2031, under which commercial banks in Nepal are established and operated, has defined Commercial Bank as a bank which exchanges money, accepts deposit, advances loans and performs other commercial transactions and which is not specially established with the objectives of co-operative, agricultural, industrial or any other of such kind of specified purpose. The Act has defined the commercial Bank on the basis of its objectives and activities. Referring to the act, a commercial bank should be established with a specified objective of co-operative, agricultural, industrial or any of such of specific purpose.

- Should accept customer deposit?
- Should advance loans and make investments?
- Should perform commercial transactions?

The same Act has provided for the modalities of establishing a commercial bank, as per which a commercial bank can be established under the Company Act as a limited liability company only with the recommendations of Nepal Rastra Bank. From the various definition made and opinion produced regarding commercial banking, it can be concluded that a commercial bank is set up to collect scattered funds and employ them to productive sector of economy.

### 2.1.15 Evolution of Commercial Bank

The world 'Bank' is derived from the word 'Banco', 'Bancus' or 'Banque' all meaning to a bench. This refers that early bankers transacted their money lending activities on banches in the marketplace exhibiting the coins of different countries in different denominations for the purpose of changing and or lending money. Some writers are of the opinion that the word 'Bank' came from the German word 'Banc' meaning joint stock fund (Varshney, 1993:169).

In its native from, banking is as old as in the authentic history and origins of the modern commercial banking are traceable in ancient times. In ancient Greece, around 2000 B.C., the famous temples of Ephesus, Delphi and Olympia were used as depositories for people surplus fund and these temples were the centers for money lending transactions. The pries of these temples acted as financial agents until public confidence was destroyed by the spread of disbelief in the religion. Later, however, for a few centuries, banking as an organized system of money lending receded because of the religious belief that the charging of interest was immoral. However, the banking as we know today, made its first beginning around the middle of 12th century in Italy. The Bank of Venice, founded in 1157 A.D. was the first public banking institutions. Following this, in $14^{th}$ century, the Bank of Barcelona and the Bank of Genoa were established in 1401 A.D. and 1407 A.D. respectively (Vaish, 1996:192).

In England, start of Banking can be accounted for as far back as the region of Edward III. Those days, the Royal Exchanger used to exchange the various coins into British money and also used to supply foreign money to the British men going out of the country. The bankers of Lombardy were famous n medieval Europe as the credit of planning the seed of modern banking in England goes to them when they settled in

London in the locality now famous as the Lombard Street.

The goldsmiths can be considered as the initial Bankers in England as they used to keep strong rooms with watchmen employed. People entrusted their cash to them. The goldsmiths used to issue duly signed receipt of the deposits with the undertaking to return the money on demand charging some fee for safe keeping. These undertaking helped in gaining a further confidence of the public therefore the money were kept with them for longer periods. They were thereby encouraged to lend some part of these funds, which became profitable business to them. Therefore they started offering interest on the deposits to attract more funds. In the course of time independent banking concerned were set up. The Bank of England was established in 1694, under a special Royal Charter. Further in 1833 legislative sanction was granted for establishment of joint stock banks in London, which served as a big impetus to the development of joint stock banking. These banks took the initiative for extending current account facilities and also introduced the facilities of withdrawals through cheques.

In India, the ancient Hindu scriptures refer to the money lending activities in the Vedic period. During the Ramayana and Mahabharata eras, banking had become a full-fledged business activity and during the smiriti period (after the Vedic period), the business of Banking was carried on by the members of Vanish community. Manu, the great law giver of the time speaks of the earning of interest as the business of Bishyas. The bankers in the Smriti period performed most of those functions which the banks in modern times performs such as the accepting of deposits, granting loans, acting as the treasurer, granting loans to the king in times of grave arises and banker to the state and issuing and managing the currency of the country (Vanish, 1992:183).

In Nepal, although the monetary history dates back to 1st century (Lichhavi Dynasty), the banking history is comparatively very short. The development of organized banking has started in Nepal only from around the starting of 20th century of Bikram Sambat. Nepal Bank Limited, established in B.S. 1994 with an authorized capital of Rs.1 crore and paid up capital of Rs.8 lacs 42 thousand is the first organized bank established in Nepal (NRB, 2045). Although during the Prime Minister-ship of

Rana Prime Minister Ranadwip Singh an office called "Tejarath Adda" was established for granting loans to government officials and also to the general public against the security of gold, silver and other valuables, it could not be considered as Bank in real sense as it did not collect deposit. Later after establishment of Nepal Bank, the functions of "Tejarath Adda' were limited upto providing loans to government officials only (NRB Report, 2045:12).Banking development in Nepal found another break after the establishment of Nepal Rastra Bank, the Central Bank of Nepal in 2013 B.S. (NRB, 2045:14). This has helped organizing the monetary system in the country before which the duel currency system (Indian and Nepalese currency) was prevailing in the system. Larger sector of economy was none monetized. In the course of organized development of banking sector, second commercial bank, Rastriya Banijya Bank was established in 2022 B.S. at the state ownership (NRB Report, 2045:16). Later on, in FY 2039/40, the policy for allowing establishment of foreign joint venture banks was taken with an aim of having fair competition and skill development in banking sector, which had added a new dimension in development of banking in Nepal. Accordingly, Nepal Arab Bank Ltd. (presently renamed as Nabil Bank) has been established as the first joint venture bank in Nepal in 2041 B.S. (NRB Report, 2045:17).

Afterward, various commercial banks were opened with foreign joint venture under private sectors in Nepal which had contributed a lot to bring the commercial banking at present day position. Nepal Bangladesh Bank has established in the year 2051 B.S.

**2.1.16 Financial Statements of a Commercial Bank:**

The financial statement of a commercial bank includes Balance Sheet, Profit and Loss Account, Cash Flow statement and other relevant disclosures.

- **Balance Sheet:**

The balance sheet includes two sides Capital and Liabilities and Assets side. The brief explanation on accounting heads of the balance sheet is provided below:

**Capital and Liabilities:**

Share Capital: The amount of paid up capital of the bank should be mentioned under this head. The amount received against calls made should be credited in this Share Capital Account.

**Reserves and Funds:**

This accounting head shall contain the amount of reserves appropriated from profit, as well as created through any other process and the accumulated profit. Generally, this account shall be credited by debit to Profit & Loss Appropriation Account and utilization of such reserves shall be debited to the concerned reserve and fund accounts. The following account heads fall under this heading:

**General Reserve Fund:**

This is a statutory reserve. Under this head, only the amount appropriated from profit as per Commercial Banking act shall be credited. Currently, 20% of the net profit should be transferred to this account. Distribution of dividend by utilizing this fund is restricted and approval of Nepal Rastra Bank shall be obtained for the use of this fund for any other purposes.

**Capital Reserve Fund:**

Profit on revaluation of assets and capital assets received in grant from others shall be accounted under this head.

**Share Premium:**

This represents the amount of money collected on issue of shares in excess of its face value. The outstanding amount in this account shall not be considered eligible for distribution of dividends. However, it may be used for issue of bonus shares under approval of Nepal Rastra Bank.

**Other Reserves:**

Funds and reserves, other than those mentioned above shall be included under this head.

**Accumulated Profit/Loss:**

Under this head, the balance of the accumulated profit or loss as per shown in the Profit and Loss Appropriation account shall be shown.

**Borrowings:**

The borrowed funds of the bank shall be disclosed under this head.

**Deposits:**

Deposit received from the depositors as well as the interest payable on the deposits shall be credited to the account of the depositors. The deposit liabilities accepted by the bank shall be exhibited under this head.

**Bills Payable:**

Under this head, the outstanding amounts pertaining to draft, telex transfer, Payment orders issued by one branch to another branch of the bank, as well as bills drawn on the bank by other local and foreign banks shall be accounted.

**Other Liabilities:**

Other than the capital and liabilities mentioned above, all other liabilities of whatsoever nature shall be included under this heading. Any other accounting heads that could not be exhibited elsewhere may be included under this head, as required.

## Assets Side:

**Cash Balance:**

This heading shall be used for showing the total amount of cash-in-vault, consisting of local and foreign currency.

**Balance with Banks:**

The balances of amounts in non-interest bearing accounts maintained by the bank with Nepal Rastra Bank as well as with other local and foreign banks shall be exhibited under this head.

**Money at Call or Short Notice:**

The amount of all interest bearing placements with other banks with maturity of less than 7 days with stipulated condition for payment at call or at short notice (48 hours) shall be exhibited under this head.

**Investments:**

As a line of defense to meet demands for cash and serve as a quick source of funds, banks invest certain proportion of funds in the liquid assets. These typically include holding of shorter-term government bonds like treasury bills, development bands etc. and other securities purchased in the open market and readily convertible into cash in the financial market Other forms of investment include investment in the shares and debentures of other companies. These investments are mainly made for their ability to generate income. The investments are to be valued at market price or cost price whichever is lower.

**Loan, Advances and Bills Purchased:**

The sum outstanding of all loans and advances extended to the customers as well as bills purchased and discounted bills less the amount of provisions made shall be exhibited. However, the loans extended to the staffs shall not be disclosed under this head and should be shown under other assets.

**Fixed Assets:**

All assets of long-term nature owned by the bank shall be accounted under this head and be exhibited in the Balance Sheet at written down value after deducting the depreciation from the total cost.

**Other Assets:**

The heading shall be used for accounting of any other tangible or intangible assets, not mentioned above. Stationary stock, Accrued interest on investment, accrued interest on loan, Sundry debtors, Assets in transit, Non-banking assets, Expenses not written off etc.

**Contingent Liabilities:**

1. Claims on bank but not accepted by bank:
   It means any compensation claimed or other claims for payments in writing by a third party for whatsoever reason against the bank to which the bank holds a different view and has not accepted the liability.
2. Full value of unmatured guarantees shall be disclosed under this head.
3. If the bank has entered into a forward foreign exchange contract with its customers, the full value of unmatured contract shall be disclosed under this head.
4. The full value of the letters of credit shall be disclosed under this head.

**Profit & Loss Account:**

The summary of the heads of account in the profit and loss account of a commercial bank is given below:

**Expenses Side:**

Interest Expenses: Payment of interest on deposits accepted by the bank and on the borrowings is shown under this head.

**Employee Expenses:**

All expenses related to the employees of the bank for the specific period shall be included under this head. Expenses included are salary, allowances, pension, gratuity, training expenses, uniform expenses etc.

**Office Overhead Expenses:**

All expenses related to the office overhead of the bank during the specific period shall be included under this head. Some of the expenses under this head are house rent, insurance, audit expenses, newspapers and magazines, advertisement etc.

**Exchange Loss:**

The negative balance in exchange fluctuation gain/loss account shall be exhibited under this head.

**Non-Operating Expenses:**

These are the expenses that have no direct relationship with the operation of banking transaction. Some of the examples are loss on sale of investment and loss on sale of assets.

**Bad Debts Written off:**

Where the bank has written off loans on account of being unrecoverable, such written off amount to the extent not covered by loan loss provision shall be charged to profit and loss account under this head

**Provision for Loan Loss:**

This is one of the most important heads of account related to the profitability of the bank. As per the directive of the Nepal Rastra Bank, the banks are required to make provisions for loan losses. The provisions are to be made on the basis of the expiry dates on the principal amount of the loans and advances. As per the directive the provisions to be made is as follows:

| Category | Provision required | Criteria |
|---|---|---|
| Pass | 1% | due upto 3 months |
| Substandard | 25% | due for 3 - 9 months |
| Doubtful | 50% | due for 9 months – 2 year |
| Loss | 100% | due for more than 2 years |

However, in case of bills purchased items, provision is to be provided at 1% if it stands due for 90 days and in case it remains due for more than 90 days 100% provision is required.

**Staff Bonus:**

The amount of bonus set aside for payment to staffs is disclosed under this head. As per the Nepal Rastra Bank directives the bank is entitled to make provision for staff bonus @ 10% on the net profit after adjustment for loan loss provision.

**Provision for Income Tax:**

The amount of income tax on net taxable profit for the period shall be determined through this head. Taxable profit has to be determined considering the allowable and disallowable expenses as per the prevailing Income Tax Act and Finance bill.

**Net Profit:**

This figure represents the excess of total income over total expenses of the bank during the period.

**Income Side:**

**Interest Income:**

This is the most significant source of income of any commercial bank. Under this head the interest received from the customers on behalf of the loans and advances and on the investments of the bank is exhibited. However, Nepal Rastra Bank has established several criteria for the recognition as interest income.

- The interest income should be recognized on cash basis.
- The amount of interest accrued but not received; have to be credited to the interest suspense account.
- In case if the interest accrued is realized within one month from the date of closure of fiscal year, such amount may be recognized in the income of the earlier fiscal year.
- The interest on loans and advances should not be recovered by overdrawing the borrower's current account or where overdraft limit has been extended, by overdrawing such limit.

**Commission and Discount:**

The total amount of commission, service charges and discount earned by the bank from the transactions during the period shall be exhibited under this head. Some examples are commission on issue of guarantees, commission on issuance of L/C etc.

**Exchange Gain:**

The foreign exchange transaction gains of the banks are to be classified separately into Trading Gain and Revaluation Gain.

**Non-Operating Income:**

Income or profit that has no direct relationship with the operation of banking transaction has to be recognized into Profit and Loss Account under this head. For example, loss on sale of assets, loss on sale of investment etc.

**Other Income:**

Receipts of all other income not specifically provided under the income heads as above shall be booked under this head. E.g. rental income of safe deposit boxes, renewal income of ATM cards etc.

**Net Loss:**

This figure represents the excess of total expenses over total income of the bank during the period.

**2.1.17 Role of Commercial Banks in the Development of Economy**

Commercial Banks play an important role in facilitating the affairs of the economy in various ways. The operations of commercial Banks record the economic pulse of the country. The size and composition of their transaction reflect the economic happening in the country. Commercial Banks have played a vital role in giving the direction in economic growth over the time by financing the requirement of industries and trade in the country. By encouraging thrift among the people, banks have fostered the process of capital formation in the country. In the context of deposit mobilization, commercial banks induce the savers to hold their savings in the form of bank deposits thus help bringing the scattered resources into the organized banking sector which can be allocated to the different economic activities. In his way they help in country's capital assets formation. Through their advances, banks also help the creation of income out of which further saving by the community and further growth potentials emerge for the good of the economy. In a planned economy, banks make the entire planned productive process possible by providing funds to the public sector, joint sector or private sector for any type of organization. All employment income distribution and other objectives of the plan as far as possible subsumed into the production plan which banks finance (Vaish, 1996:265).

The importance of commercial banks in directing the economic activities in the system is immense. Not only in the highly developed economies where the commercial and industrial activities are paralyzed in the absence of banks, even in the developing countries' economy are most of the economic activities particularly of organized sectors bank based. Therefore, in a nutshell it can be said that the growth of the economy is tied up with the growth of the commercial banks in the economy.

**2.2.1 Review of Books:**

Peter Rose in her book commercial bank management says, Achieving superior profitability for a bank depends upon several crucial factors:

- Careful use of financial leverage or the proportion of bank assets financed by debts as opposed by the shareholders equity capital.

- Careful use of operating leverage from fixed assets or the proportions of fixed cost input the bank uses to boost its operating earnings before taxes as bank output grows.
- Careful control of operating expenses so that more dollars of sales revenue become net income.
- Careful control of the bank's exposure to risks so that the losses don't overwhelm its income and equity capital.

Michal R Baye and Dennis W. Jansen through their book Money, Banking and Financial Markets have tried to analyze a bank's profitability under and economic approach. They state. To maximize profits, bank should attract the interest rate paid on deposits.

Bank earn interest on loans and investments, they pay interest to the depositors, when interest rate sensitive assets and liabilities. If, for example, a bank holds more rate sensitive assets and liabilities when interest rate rise, profits will be improved because the bank will receive more in increased interest revenue than it will pay out in rising costs. The reverse would be true during a period of falling interest rates.

The interest gap is the difference between rate sensitive assets and liabilities; holding more rate sensitive assets than liabilities is called a positive Gap and an excess of rate sensitive liabilities over assets result in a negative gap. Emphasizing the bank's modern functions Meir Kohn says, Bank now have steadily expanded their activities in payment related services, in delegation and trust services, in credit substitution and services, and in forward transactions. In doing so, they have pursued economics of scope, relatively uncontained by regulations.

Analyzing the behavior and future prospects for profitability of a financial institution is a complex task. Many factors affect each institution’s profitability. Among the most important factors are the friskiness of loans and investments made; liquidity needs and the institutions provision for those needs' the effectiveness of tax management practices the level of efficiency in utilizing human and non human resources; and the ability of management to control expenses. (Particularly interest expenses and employee costs)

H.D Crosse puts in this way, Lending is the essence of commercial banking and consequently the formulation and implementation of sound policies are among the most important responsibilities of bank directors and management. We conceived lending policies and careful lending practices are essential if a bank is to perform its credit creating function effectively and minimize risk inherent in any extension of credit.

In other words of S.P & Sing & Sign, the investment (credit) policies of banks are conditioned, to great extent, by the national policy framework, every banker has to apply his own judgment for arriving at a credit decision, keeping of course his banker's credit policy also in mind. Sing S.P & Sighs, financial analysis for credit management in banks.

### 2.2.2 Review of preview research work

Rimal (2008), has submitted thesis on the topic *Profit planning and control of Nepal Bangladesh bank limited.*

**Her major objectives:**

1. To analyze the trend of profit of the fiscal year 2057/58 to 2063/64 of Nepal Bangladesh Bank.
2. To highlight the current profit-planning premises adopted and its effectiveness in NB Bank.
3. To observe NB Bank’s Profit planning on the basis of overall managerial Budgets developed by the Bank
4. To analyze the variance of budgeted allocation and actual achievements

**Her major findings:**

a. Major resources mobilization of NB Bank was at deposit. In this respect they incurred higher cost toward deposit mobilizations.
b. Deposit mobilized by the Bank was found to be considerably growing every year. The average growth over the period of last seven years beings as high as

Rs.10865736.

c. Bank's resources deployment for non-yielding liquid assets (cash and bank balance) increased every year. Thus making supportive to meeting liquidity requirements of the Bank.

**Her major recommendations**:

1. The average cost of deposit of bank is high, therefore bank should try to lower it by mobilizing more and more low cost or cost free deposits thereby reducing the interest cost because due to the high cost of deposit.
2. Banks CD ratio is high, which is rather a compulsion for a bank to meet the cost of high cost deposits .Higher CD ratio although gives better results in short term, it hampers the liquidity and is more risky for the bank and calls for more provision for loan loss In this way the profitability of the bank also get hampered on the long run .Therefore the bank should improve its position from lowering the deposit cost and increase the investments in liquid assets although they are of low yield.
3. NB bank shall attempt to lower the burden cost, by increasing the other income and decreasing the other expenses. At the same time it should take a policy to make the interest margin at the maximum extent as allowed by the central Bank's norm.

Kunwar (2009), has submitted thesis on the topic *Profit Planning of Nabil Bank Limited.*

**His Major Objectives:**

1. To find out the relationships between total investment loan andadvances, deposit, net profit and outside assets.
2. To identify the investment priority sectors of commercial Bank
3. To assess the impact of investment on profitability.
4. To analyze and forecast the trend and structure of deposit utilization and its projection for five years of Commercial Bank

**His major finding:**

1. Interest expenses amount is the highest among total expense items of the bank every year.
2. The total deposit of the bank is found increasing every year corresponding to the increase in interest expenses the total deposit is perfectly and positively correlated with total interest expenses.
3. NABIL Bank lacks active and organized planning department to undertake innovative products research and development works.
4. Objectives of the banks are expressed in literary form, and not specified clearly, therefore there is a danger if it being misinterpreted in the ways of one's benefit by the concerned

**His Major Recommendations**:

1. Cash and bank balance of NABIL is high. Banks efficiency should be increased to satisfy the demand of depositor at low level of cash and bank balance does not provide return to the bank. Therefore some percentage of the cash and bank balance should be invested in profitable sectors.
2. Bank is suggested to make policy to ensure rapid identification of delinquent loans. Bank should make immediate follow-up of loan until it is recovered. The recovery of loan is very challenging as well as important part of the bank. Therefore bank must be careful to strengthen credit collection policy
3. NABIL should avoid extending credits merely based on oral information presented at the credit interview. Historical financial and trade records should be obtained for proper assessment.

Maharjan (2009), conducted a study on the topic *Profit Planning in a Commercial Bank (A Case Study of Standard Chartered Bank)*

**Her Major Objectives:**

1. To highlight the current profit-planning premises adopted and its effectiveness in Standard Chartered Bank.
2. To observe Standard Chartered Bank's Profit Planning on the basis of overall managerial Budgets developed by Bank.
3. To analyze the variance of budgeted and actual achievements
4. To study the growth of the business of the Bank over the period.

5. To make necessary suggestions and recommendations.

**Her Major Findings;**

1. The decision making process is highly centralized however, management takes the feed forwards for annual planning and strategy building through manager conferences and strategy building through manager conferences and strategic meeting organized twice in every year at the head office.
2. Interest expenses amount is the highest among total expense items of the bank every year.
3. The total deposit of the bank is found increasing every year corresponding to the increase in interest expenses the total deposit is perfectly and positively correlated with total interest expenses.
4. The Profitability ratio shows that it is a useful measurement for all financial researchers invested in the assets. As Return on assets is high during 2005/06 with 2.55% and return on equity is high in same fiscal year with 37.55%. This shows that overall efficiency of the SC Bank and better utilization of total resources available is higher and strong.

**Her Major Recommendations:**

1. Profit Planning & control technique should be used for making long term banking strategies and managerial decisions.
2. Employee training & career planning at advance level should be given more focus in order to keep the man power updated with the changing practices and the technologies.
3. The average cost of deposit of the Bank is high. Therefore, bank should try to lower it by mobilizing more and more low cost or cost free deposits thereby reducing the interest cost due to high cost of deposit, bank is forced to invest its liquid and obviously risky for the bank.
4. Bank CD ratio is high, which is rather a compulsion to meet the cost of high cost deposits. Higher CD ratio although gives better return in short term, it hampers the liquid and is more risky for the bank and calls for more provision for loan loss. In this way, the profitability of the bank also get hampered on the long run. Therefore, the bank should improve its position from lowering the deposit cost

and increase the investments in liquid assets although they are of low yield.

### 2.2.3 Research Gap

Most of the past research studies were about profit planning system is basically related to profit planning system of manufacturing organization or production oriented activities and comparative study of joint venture banks. The researcher could not find only one study so far that has been related to profit planning system of a commercial bank. All dissertations have pointed out there is no proper planning and controlling system and recommend for the effective implementation of profit planning and controlling system in the concerned institutions.

This study is shall be a new one in this field as no study has been made so far in the profit planning and controlling of particularly Nabil bank. This study has tried to indicate the role of budgets for effective formulation and implementation of profit planning system as well as to see how far the bank is practicing. This study has analyzed the financial position of NABIL BANK by applying the tools of ratio analysis and other mathematical and statistical tools. Finally it concludes the various finding of research and recommendation to NABIL BANK. Above chapter two gives the detailed study about the conceptual framework of profit and profit planning, various activities of commercial bank and the applicability of profit and profit planning, in the bank with a specific reference to NABIL BANK. The forthcoming chapter includes the Research

# CHAPTER- III

# RESEARCH METHODOLOGY

## 3.1 Introduction

The term research is believed to be derived from the French word researcher meaning to search again .The research work is undertaken following a systematic way, which is called the research methodology .As per Kothari; it is the way to solve systematically about the research problem.

This study has intense relation with the application of planning and control in a commercial Bank with a specific reference to Nepal Bangladesh Bank regarding the objectives to analyze, examine and interpret the application of profit planning in the Bank. The research methodology includes; research design, data collection procedures, and research variable and tools used.

## 3.2 Research Design

A research design is purely and simply the framework or plan for a study that guides the collection and analysis of the data .As per Kerlinger (1986),Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance .This study is an examination and evaluation of budget process in profit planning program of NB Bank .Various functional budgets and other related accounting information's and statement of the bank are the materials to analyze and evaluate the profit planning system of the bank. Descriptive as well as analytical research designs have been adopted in this research. This is a case study research.

## 3.3 Population & Sample

As this report aims at studying the profit planning aspect of a commercial Bank taking the case study of a single Bank i.e. Bank, and data have been made analyzed for whole seven years of its operation the population and sample term is not relevant for this study .

## 3.4 Data Collection Procedures and Sources of Data

This study is mostly based on secondary data. However, primary data and information have been obtained through informal discussions with the staffs of the bank. Secondary data have been collected from the annual published accounting and financial statement of the banks. Similarly other necessary data have collected from website, newspapers and related publications.

## 3.5 Research Variables

Loans/Advances overdrafts and Bills discounted (LDO), customer deposits, total resources, total deployment interest expenses, other expenses, interest income, other income etc. of the banks are the research variables of this study.

## 3.6 Analysis of Data

Analysis is the careful study of available facts so that one can understand and drew conclusion from them on the basis of established principles and sound logic (Cottle et al., 1988, 29). This study mostly based the analysis of secondary data with the help of different statistical tools. Therefore the data have been collected accordingly and managed, analyzed and presented in suitable tables, formats, diagrams, graphs and charts. Such presentations have been interpreted and explained wherever necessary. Financial, mathematical and statistical tools are used to analyze the presented data, which includes ratio analysis, percentage, regression analysis, correlation, mean, standard deviation, coefficient of variance, percentile increment, etc.

## 3.7 Statistical Tools

To draw the conclusion by analyzing the collected data simple statistical tool like arithmetic mean, multiple bar diagram, pie-chart are used and tabulation are used to implicit the comparative results.

### 3.7.1 Arithmetic Mean Average

The central values that represent the characteristics of the whole distribution or the values around which all items of the distribution tend to concentrate are called average. Arithmetic mean or arithmetic average is one of the important statistical measures of average. The arithmetic mean of a given set of observation is their sum divided by the number of observations.

### 3.7.2 Multiple Bar- diagrams and graphs

Diagrams and graphs are visual aids which give a bird's eye view of a set of numerical data which show the information in a way that enables us to make comparison between two or more than two sets of data. Diagrams are in different types. Out of these various types of diagram one of the most important form of diagrammatic presentation of data is multiple bar diagram which is used in cases where multiple characteristics of the same set of data have to be presented and compared.

### 3.7.3 Percentage

Percentage is one of the most useful tools for the comparison of two quantities or variables. Simply, the word percentage means per hundred. In other words, the fraction with 100 as its denominator is known as a percentage and the numerator of this fraction is known as rate of percent.

### 3.7.4 Coefficient of correlation(R)

Correlation analysis is the statistical tools use to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the direction of relationship between the two sets of figures. It is the square root of the coefficient of determination. Correlation can either be negative or positive. It always lies between +1 to -1. The degree of association between the two variables, say X and Y, and is defined by correlation coefficient (R)

$$R = \frac{\sum xy}{\sqrt{x^2}\sqrt{y^2}}$$

or,

$$= \frac{Cov_{BA}}{\sigma_B.\sigma_A}$$

Where,

$X = \bar{X} - X$ & $Y = \bar{Y} - Y$

### 3.7.5 Regression Analysis

Regression is the statistical tool which is used to determine the statistical relationship between two (or more) variables and to make estimation (or prediction) of one variable on the basis of the other variable(s).In other words, regression is that statistical tool with the help of which the unknown value of one variable can be estimated on the basis of known value of the other variable.

### 3.7.6 Standard Deviation (σ)

The standard deviation is the absolute measure of dispersion. It is defined as the positive square root of the mean of the square of the deviation taken from the arithmetic mean. The greater the amount of dispersion or variability, the greater the standard deviation, the greater will be the magnitude of the deviation of the values from their mean. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series and a large standard deviation means just the opposite.

### 3.7.7 Coefficient of variation (C.V.)

The relative measure of dispersion based on the standard deviation is known as the coefficient of variation. It is independent of unit. So, two distributions can bitterly be compared with the help of C.V. for their variability. Less the C.V., more will be the uniformity, consistency, stable and homogeneous etc. and vice versa.

# CHAPTER-IV

# PRESENTATION AND ANALYSIS OF DATA

This chapter implies the presentation and analysis of data collected from various secondary sources. The chapter has been divided into two main sections. The first section of the chapter includes the presentation and analysis of data while the second section includes major findings of the study.

## 4.1 Financial Analysis of Nabil Bank

Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet. Here relevant ratio is calculated and appropriate interpretations are made. Analysis of financial ratio shows the performance of the bank.

### 4.1.1. Liquidity Ratio

Commercial Banks must maintain its satisfactory liquidity position to satisfy the credit needs of the commercial to meet demands for deposits, withdrawals, pay nation by obligation in time and convert non-cash assets into cash to fulfill immediate needs without loss of bank and consequent impact on long run profit.

**a. Current Ratio**

It is the relationship of current assets and current liabilities. Current assets can be converted in to cash with in short period of time normally not exceeding one year. Current liabilities are those obligation which are payable with in short period. Current assets consist of cash and bank balance, money at call or short terms notice, loan & advances, investment in government securities and other interest receivable and other miscellaneous current assets. Current liabilities consist of deposits, loan and advances, bills payable, Tax provision, staff bonus, dividend payable and miscellaneous current liabilities.

**Table : 4.1**

**Current Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 0.94 | 0.97 | 2.08 | 1.77 | 1.87 | 2.05 |

(Source Appendix: 1)

In the Table : 4.1 current ratio of Nabil bank has been analyzed. The table reflect that the current assets in year 2003/2004 and 2004/2005 has been. It shows that bank has more current assets than current liabilities. In general it can be said that bank has sound ability to meet their short term obligation. In other words bank is capable of discharging the current liabilities. The references current ratios for better liquidity position of the company are 2:1.

**b. Cash and Bank Balance to Current Assets Ratio**

This ratio measures the proportion of most liquid assets i.e. cash and bank balance among the total current assets of bank. Higher ratio indicated the bank's ability to meet the daily cash requirement of their customers' deposit. Bank has to balance the cash and bank balance to adequate cash for the customers demand against deposit when required and less interest is required to be paid against the cash deposit.

The table below shows the Cash and bank balance to current asset ratio of Nabil bank.

**Table : 4.2**

**Cash and Bank Balance to Current Assets Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 6.81 | 3.74 | 4.54 | 6.72 | 11.40 | 11.88 |

(Source: appendix 2)

This Table : 4.2 shows cash and bank balance to current assets ratios of bank is generally increasing trend. But fiscal year 04/05 it has been decreased than year 03/04. Generally bank ability to meet the daily cash requirement of their customers deposit is increasing trend. It is favorable for organization.

### c. Cash and Bank Balance to Total Deposit Ratio

Cash and bank balance are assets that constitute the banks first live of defense and consist of cash and hand foreign cash on hand cheques and other cash items balance with demotic banks and balance help aboard. This ratio measures the promotion of most liquid assets i.e. cash and balance among the total current asset of bank. Higher ratio shows the bank ability to meet the demand for cash.

The table below shows cash and bank balances to total deposit ratios of Nabil bank

**Table 4.3**

**Cash and Bank Balance to Total Deposit Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 6.87 | 3.83 | 3.26 | 6.00 | 8.37 | 9.03 |

(Source: appendix 3)

Table : 4.3 shows the percentage of cash and bank balance to total deposit ratios position of Nabil bank. The cash reserve ratios (i.e. cash and bank balance to total deposit ratios) determined by Nepal Rastra Bank is 5 times. Mean is 6.22. It is higher than the ratio determined by Nepal Rastra Bank. Last three years this ratio is increasing trend. It is favorable for organization.

But bank may invest in more productive sector like short term marketable security Treasury bill etc. ensuring enough liquidity which will helps the bank to improve its profitability.

### d. Loans and Advances to Current Assets Ratio

Loan and advances include short and long term loan overdrafts and cash credit. Commercial banks should not keep its all collected funds as cash and banks balance in order to invest as loan and advances to the customers. If sufficient loan and advances cannot be granted, it should pay interest on those un-utilized deposits funds. Even high loan and advances may also effects to keep the bank in most liquid position because they can only be collected at the time of maturity. This, a bank must maintain its loan and advances on proper way.

**Table : 4.4**

**Loans and Advances to Current Assets Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio (%) | 57.40 | 70.71 | 92.98 | 76.30 | 92.88 | 98.66 |

(Source: appendix 4)

The table shows the percentage of loan and advance to current assets ratio position of bank. Loan and advance to current assets ratios of bank is increasing trend.

### 4.1.2 Asset Management Ratio

Commercial bank must be managed its assets very well to satisfy its customers to earn high profit and for its own existence. It measures the efficiency of the bank.

#### a. Loans and Advances to Total Deposits Ratio

This ratio measures how successfully the banks are able to mobilize the total deposit on loan and advances for profit generating purpose. Higher the ratio indicates the better mobilization of total deposits, but too high is not be better from its liquidity point of view. This Table : 4.5 reflects the percentage of loan and advances to total deposit ratios position of Nabil.

**Table : 4.5**

**Loans and Advances to Total Deposits Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio(%) | 58.01 | 72.57 | 66.79 | 68.12 | 68.18 | 74.97 |

(Source: appendix 5)

This table shows the loan and advance to total deposit ratio is increasing trend. It shows the bank has able to mobilize the total deposit on loan and advance for generating profit. So now bank has better position regarding the mobilization of total deposit on loan and advance for accruing higher profit.

**Relationship between Deposit and Loan and Advances**

It measures the intensity or magnitudes or degree of relationship between the two variables. In the analysis, deposit is independent variable (X) and loan and advances are dependent variable (Y). The objectives of computing coefficient of correlation (r) between the two variables are to justify whether deposit is significantly used as loan and advances or not. The Table : 4.6 shows the value of ‘r’, r2, P. Er and 6. P. Er between deposit and loan and advance of Nabil Bank.

**Table : 4.6**

**Correlation between Deposit and Loan and Advances**

| r | $r^2$ | PEr | 6PEr |
|---|---|---|---|
| 0.992 | 0.984 | 0.0043 | 0.0258 |

(Source: Appendix 13 )

Table shows that coefficient of correlation between deposit and loan and advance is 0.992. it shows that positive relationship between two variable. The coefficient of determination $r^2$ is 0.984,which means 98.40 % of the variations in the dependent variable (loan and advance) has been explained by the independents variable (deposit ). Similarly consider the value of “r” (i.e 0.9964)and comparing it with 6PEr (i.e 0.0258). we can find it is greater than value of 6PEr which reveles the value of r is significant or there is significant relationship between deposit and loan and advance.

**b. Total Investment to Total Deposit Ratio**

The commercial banks must mobilize its deposit fund by investing in different securities issued by government and other financial, non financial sectors. This ratio measures the extent to which the banks are capable to mobilize their deposits on investment in various securities. This ratio is computed by dividing total investment by total deposit ratio. The Table : 4.7 shows the total investment to total deposit ratio of the bank Nabil bank.

**Table : 4.7**

**Total Investment to Total Deposit Ratio**

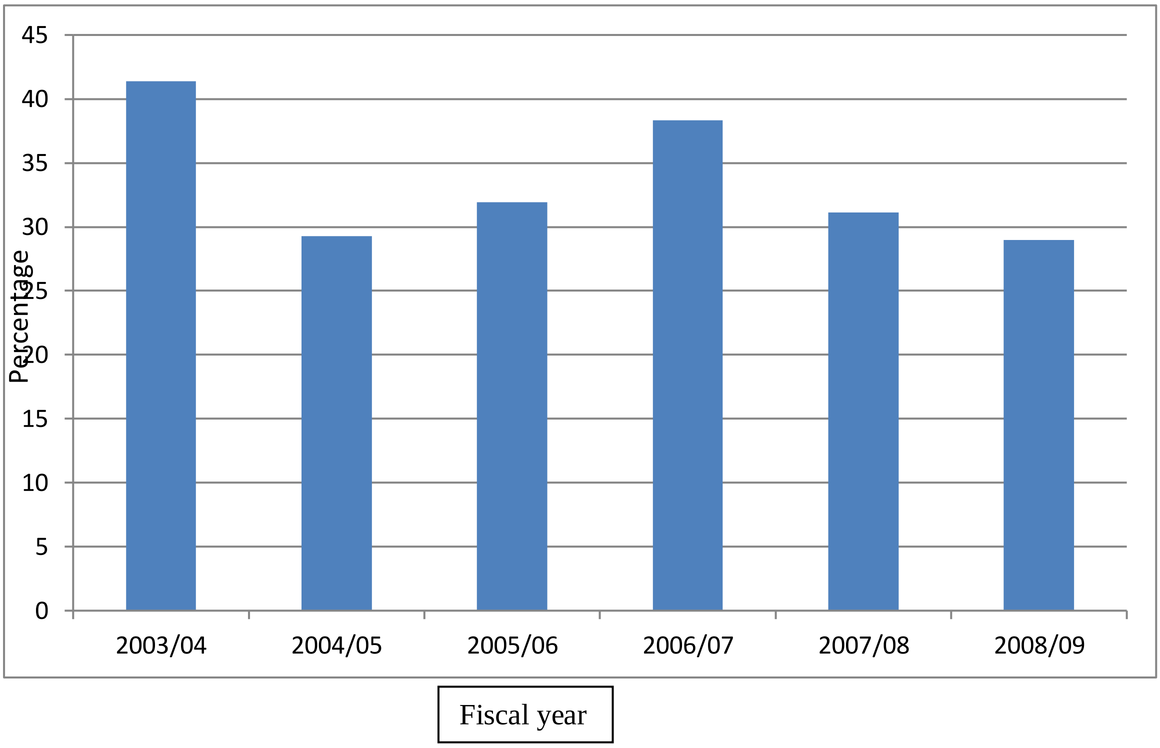
| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 41.33 | 29.25 | 31.93 | 38.32 | 31.14 | 28.99 |

(Source: Appendix 6)

From the Table : 4.7 it is found that total investment to total deposit ratio of bank is in either increasing or decreasing trend or in fluctuating trend during the study period of 2003/04 to 08/09. This ratio is better if there homogeneous.

**Figure : 4.1**

**Total Investment to Total Deposit Ratio**




**Relationship between deposit and total investment**

Coefficient of correlation between deposit and total investment measure the degree of relationship between these two variables. Deposit is independent variables (X) and total investment is dependent variable (Y). The purpose of computing it is to find out whether deposit is significantly used as investment or not.

The Table : 4.8 shows the value of 'r', r2, PEr, 6PEr between outside asset and net profit of, Nabil for the study period 2003/04 to 2008/09.

Table : 4.8 shows the value of 'r', $r^2$, PEr and 6PEr between outside assets and net profit of bank for the period of 2003/04 to 2008/09.

**Table : 4.8**

**Coefficient of Correlation Deposit and Total Investment**

| r | $r^2$ | PEr | 6PEr |
|---|---|---|---|
| 0.994 | 0.988 | 0.0013 | 0.0078 |

(Source: Appendix 14)

From the Table : 4.8 shows the coefficient of correlation between deposit and total investment of Nabil bank is 0.988. It is show the positive relationship between tow variable i.e. deposit independent (X) and total investment dependent (Y) moreover, when consider the value of coefficient of determination $r^2$ it is 0.988 and it means 98.80 % of the variations in the dependent variable is explained by the independent variable. Similarly considering the value of r and comparing with 6PEr. It is lesser than 6PEr which reveals that the value is not significant.

### 4.1.3 Profitability Ratio

Profitability ratios are useful to measure the efficiency of operation of a firm in term of profit. Profit is the indicator of the financial performance of any firm. Commercial banks acquire profit by providing different kinds. Higher the profitability ratio shows the efficiency of the management. The following profitability ratios are related to study under this heading.

**a. Return on Loan and Advances Ratio**

Return on loan and advances ratio measures the earning capacity of banks on its total deposits mobilized on loan and advances. Mostly loan and advances included loan, cash credit, and overdraft, bills purchased and discounted. In other words return on loan and advances ratio indicates how efficiently the banks have employed its resources in the firm of loan and advances.

**Table : 4.9**

**Return on Loan and Advances Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 5.56 | 4.90 | 4.92 | 4.24 | 3.43 | 3.68 |

(Source: Appendix 9)

The Table : 4.9 shows that ratio of return on loan and advance is decreasing trend. It is unfavorable for organization. It indicates that return on loan and advance has not been so effective.

**b. Return on Total Working Fund Ratio**

It also known as return on asset. This ratio measures the profit earning capacity by mobilizing available resources (total assets). The bank has to earn satisfactory return on assets or working funds are well manage and are efficiently utilized, maximizing taxes within the legal options available will also improve the available will also improve the return or return will be higher. Net profit includes the profit that is left to the internal equities after all charge and expenses cost.
The table below shows the return on assets of Nabil.

**Table : 4.10**

**Return on Total Working Fund Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 2.72 | 3.02 | 2.85 | 2.98 | 3.14 | 4.49 |

(Source: appendix 7)

Return on total working fund ratio of bank is increasing trend. Bank has able to maintain a net profit during the study period. It has lower ratio in year 03/04 and high ratio in year 08/09.

**c. Total Interest Earned to Total outside Assets Ratio**

It measures the interest earning capacity of the banks through efficient utilization of all the outside assets. Higher the ratio indicates better us of outside assets of a commercial bank. Total outside assets includes loan and advances, investment on government securities, share and debentures and other all types of investment.

The table below exhibits total interest earned to total outside assets ratio of Nabil.

**Table : 4.11**

**Total Interest Earned to Total outside Assets Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 5.98 | 6.22 | 5.87 | 7.02 | 8.32 | 12.17 |

(Source: annul report 2003/04 to 2008/09)

The Table : 4.11 shows that the ratio of Nabil bank is in increasing trend, it is satisfactory for bank high ratio is the indicators of high earning power of the bank on its total working fund.

### d. Total Interest Earned to Total Working Fund Ratio

This ratio is calculated to find out the percentages of interest earned to total assets. It reflects the extent to which the banks are success in mobilizing their to total assets to gain higher income as interest. Higher ratio indicated higher earning power of the banks of its total working fund. The table below shows the interest earned to total working fund ratio of, Nabil.

**Table : 4.12**

**Total Interest Earned to Total Working Fund Ratio**

| year | 03/04 | 04/05 | 05/06 | 06/07 | 07/08 | 08/09 |
|---|---|---|---|---|---|---|
| ratio | 5.98 | 6.22 | 6.27 | 7.03 | 8.40 | 12.18 |

(Source: appendix 8)

The Table : 4.12 shows the interest paid to total working capital is increasing trend. Year 03/04 is 5.98 % and year 08/09 is 12.18%. it means that organization is bearing more expensive to interest .

### 4.2.1 Deposit Collection

Customer Deposit is the major important source of resource mobilization of the Bank. The contribution of customers deposit to total resources is high. Deposit is collected from various sectors such as the general public, business entities NGO's, Schools, And Trusts and other individuals and institutions, which qualify to open an account in the Bank.

Deposits are collected on customer's account, which are opened as per the Bank's policy. The customer's deposit accounts are of two types

**i Interest Free Deposit Accounts**

1. Current Deposits A/C
2. Margin Deposits A/C
3. Other Deposits A/C

**ii. Interest Bearing Deposits accounts**

1. Saving Deposit Account
2. Call Deposit Account
3. Fixed Deposit Account

### 4.2.2 Deposit Collection budget of Nabil Bank

The following table shows the budgeted amount of deposit collection which has been find out following the time series approach was adopted to ascertain the budgeted figure for Deposit collection from F/Y 2003/04 to F\Y 2008/09. Realizing its significance the bank has started to prepare budget statement from current year. The actual amount of deposit and achievement of it on the budgeted amount is given in the table.

**Table : 4.13**

**Status of Budgeted and Actual Deposit Collection**

"in million"

| Fiscal Year | Budgeted Deposit | Actual Deposit | Achievement |
|---|---|---|---|
| 2003/04 | 13995 | 14119.03 | 100.8% |
| 2004/05 | 14258 | 14586.66 | 102.30% |
| 2005/06 | 20114 | 19347.40 | 96.18% |
| 2006/07 | 22348 | 23342.29 | 104.44% |
| 2007/08 | 28253 | 31915.04 | 112.96% |
| 2008/09 | 35184 | 37348.25 | 106.15% |

(Sources: Annual Reports 2003/04 to 2008/09

The Table : 4.13 shows the deposit collection target was achieved recording 100.8% in first year 2003/04and then year 2004/05 is achieved 102.30% in year 2005/06 bank has not able to maintain standard budgeted. Then after bank's achievement is satisfied. Bar diagram shows the achievement level remaining higher then the budget level.

**Figure : 4.2**

**Bar diagram of budgeted and actual deposit collection of Nabil bank**

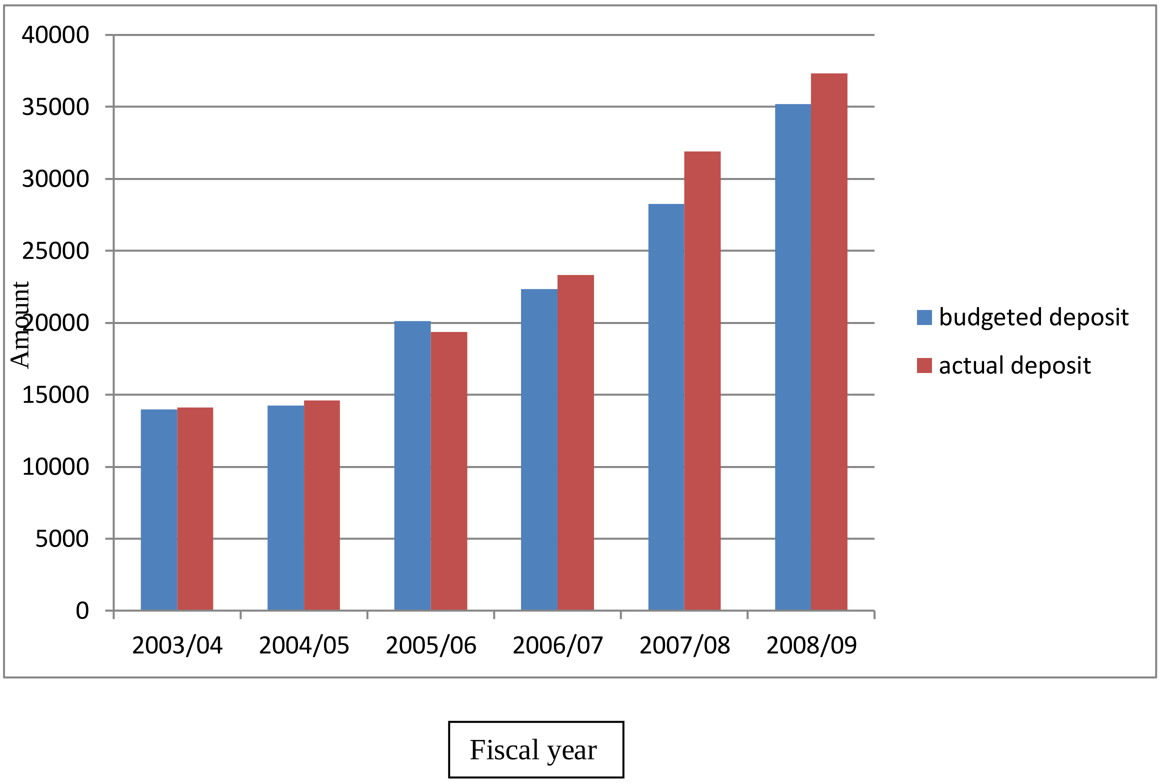



**Table : 4.14**

**Summary of the deposit collection budget and achievement**

| Statistical tools | Budgeted deposit Rs(X)in million | Actual deposit Rs(Y) in million |
|---|---|---|
| Mean ( $\overline{X}$ ) | 22374.5 | 28131.74 |
| Standard deviation (σ) | 8257.96 | 9458.19 |
| C.V. | 0.367 | 0.336 |

The above table shows budgeted deposits are less variable then actual deposit. Since the coefficient of variation of actual deposit is greater then the budgeted deposit. Actual deposit is more variable. On the other hand budgeted deposits are less variable. A greater coefficient of variation is said to be more heterogeneous. Here Nabil bank's actual deposit is the nature of more variable then deposit.

A statistical tool correlation co-efficient can be used to analyze the relationship between budgeted deposits and actual deposits. There should be positive co-relation between budgeted deposits and actual deposits. Karl person's coefficient correlation was used to find correlation between actual deposits and budgeted deposits. Karl person's coefficient of correlation is denoted by (r). By calculating (r) correlation between budgeted deposits and actual deposits can be known. The actual deposits will change in the same direction, as the budgeted deposits. For this purpose budgeted deposits assuming to be independent variable was assigned X and actual deposit assuming to be dependent variable was assigned Y upon budgeted deposits. Budgeted deposits and the actual achievement increased, which meant that there should be positive correlation between, budgeted figure and achievement figures. Significance of correlation of (r) is tested with probable error PE.

The detail calculation of 'r' and probable error PE was made in appendix 1. From that appendix the calculated the value of r was 0.9964. This figure 'r' shows that there was positively perfect correlation between budgeted deposits and actual deposits. The value of r = 0.994 and Probable Error (PE)= 0.0019. From the calculations shown in Appendix 11, the Karl Person's coefficient of correlation (r) between the Budgeted deposit (X) and Actual deposit (Y) i.e. r(X,Y) being 0.994. The following table shows the data of actual deposit mobilized by the bank as of the end of each fiscal year. The table shows the amount of deposits is increased every year considerably.

**Table : 4. 15**

**Growth Ratio in Deposit Amount**

| Fiscal Year | Deposit amount | Growth in Rs | Growth in % |
|---|---|---|---|
| 2003/04 | 14119.03 | 3752.57 | 25.52 |
| 2004/05 | 14586.6 | 467.57 | 3.31 |
| 2005/06 | 19347.40 | 4760.8 | 32.63 |
| 2006/07 | 23342.29 | 3994.89 | 20.64 |
| 2007/08 | 31915.04 | 8572.75 | 36.72 |
| 2008/09 | 37348.25 | 5433.21 | 17.02 |

(Source: Nabil bank annual report 2003 to 2009)

### 4.2.3 Resources Other than Customer Deposits

Resources other than customer deposit contribute in an average 20 % on total resources of the Bank. This was calculated on the basis of the Capital Fund (The Net Worth).The following table shows the budgeted and actual figures of the resources under this category over the period of study. Since the budgeted figure for resources mobilization other than Deposit (RMOD) from fiscal year 2003/2004 to 2008/09 could not be available so, this study has assumed the budgeted amount for the corresponding years using time series.

**Table No. 4.16**

**Status of Budgeted and Actual Resources other than deposit**

In million

| Fiscal Year | Budgeted amount | Actual amount | Growth rate |
|---|---|---|---|
| 2003/04 | 2117.85 | 2435.52 | 114% |
| 2004/05 | 2261.14 | 2172.18 | 96% |
| 2005/06 | 3095.58 | 3182.08 | 102% |
| 2006/07 | 3734.72 | 3925.90 | 105% |
| 2007/08 | 4787.25 | 4972.60 | 103% |
| 2008/09 | 5602.20 | 5503.25 | 98% |

(Sources: Nabil Bank, Annual Reports, 2003 to 2009)

The above table shows the achievement was 20% in mobilizing the resources from other than Customer Deposits for the study period except for the FY 2003/04with 95% achievement.

The resources mobilized from the sources other than customer deposit is shown in the scattered and Bar Diagram pattern:

**Figure : 4.3**

**Bar Diagram of Actual Resources other than deposits**

In million

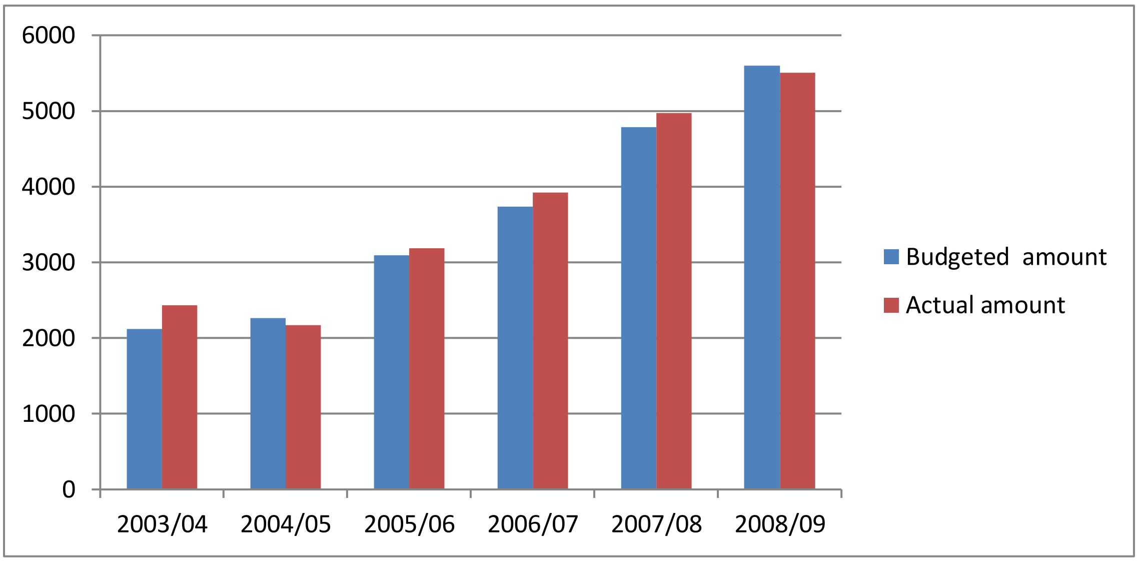
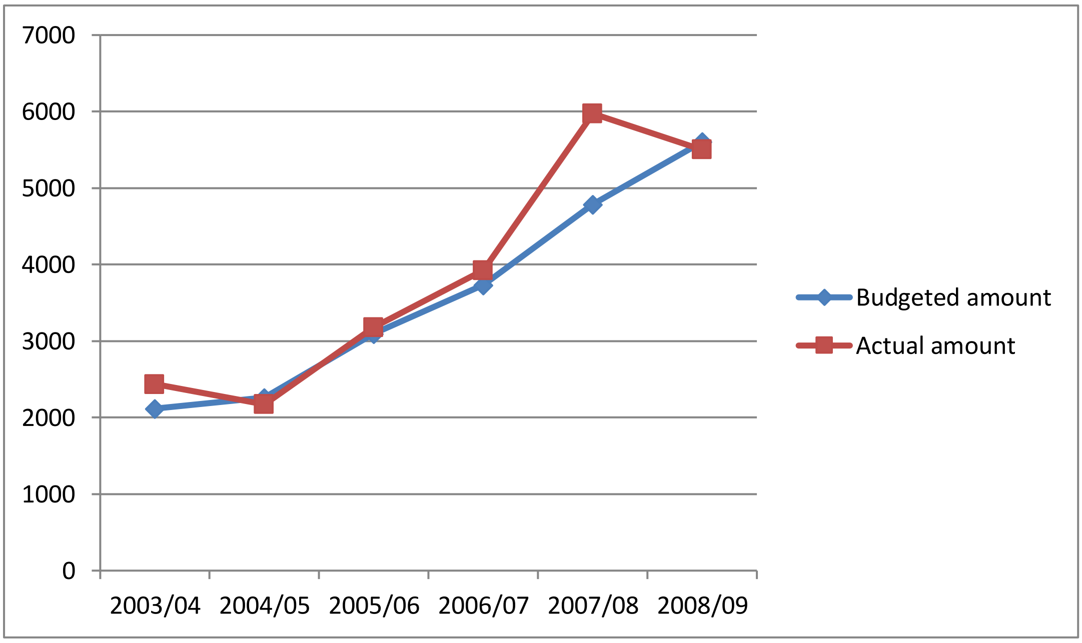



**Figure: 4.4**

**Scatter Diagram of Actual Resources other than deposits**

In million




### 4.2.3.1 LDO budget of Nabil Bank

The following table shows the budgeted amount resources allocation and achievement. Since the budgeted figure of LDO from the F/Y 20057/058 to F/Y 063/064 was not available, time series model was used to find the budgeted amount of resource deployment

**Table : 4.17**

**Status of Budgeted and Actual Deployment for LDO**

Rs. in million

| Fiscal Year | Budgeted amount | Actual amount | Achievement |
|---|---|---|---|
| 2003/04 | 9796 | 11295 | 115 |
| 2004/05 | 9980 | 10200 | 102 |
| 2005/06 | 14080 | 13287 | 94 |
| 2006/07 | 15644 | 14378 | 91 |
| 2007/08 | 19777 | 20182 | 102 |
| 2008/09 | 24629 | 25015 | 101 |

(Source : annual report of Nabil bank 2003/04 to 2008/09)

The above table showed that the achievement on deployment of LDO is in fluctuating trend. It stated from 115% and it has reached to 101% in the fiscal year 2008/09.

**Figure : 4.5**

**Bar Diagram of Actual Deployment for LDO**

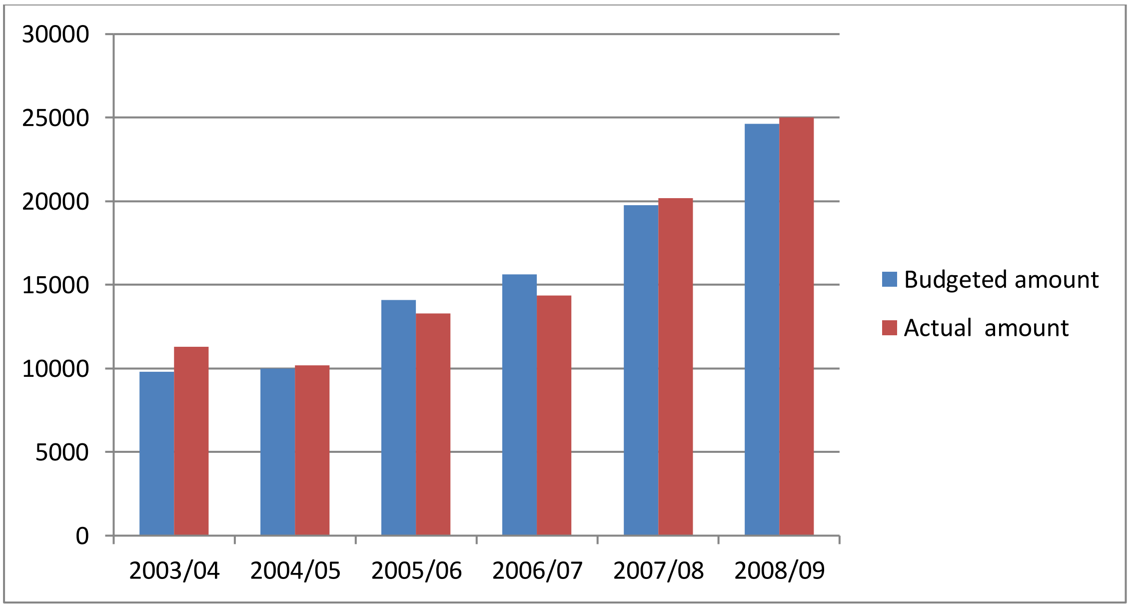
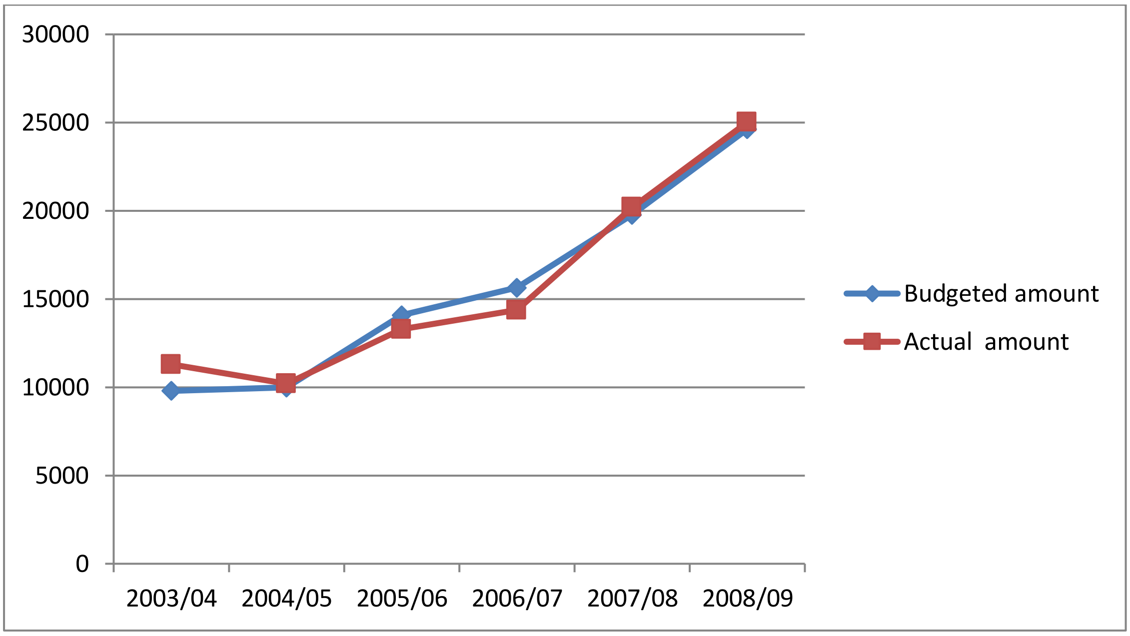


**Figure : 4.6**

**Scatter Diagram of Actual Deployment for LDO**




The statistical tools comprising arithmetic mean, standard deviation and coefficient of variation to find the relationship between the budgeted LDO with that of actual for different years. The details of calculation are available in appendix.

**Table : 4.18**

**Summary of the LDO budget and achievement**

| Statistical tool's | Budgeted Deposits in Rs (x) | Actual Deposits in Rs (y) in |
|---|---|---|
| Mean ( $\overline{X}$ ) | 15651 | 15726.167 |
| Standard deviation($\sigma$ ) | 5771.27 | 5728.48 |
| C.V | 0.37 | 0.364 |

The above table shows that actual LDO were more variable than targeted LDO. Since the coefficient of variations of actual LDO was greater than that of targeted LDO, actual LDO were of more variable. On the other hand budgeted LDO were more consistent and homogeneous than actual LDO. A greater coefficient of variation said to be more heterogeneous. Here NB Bank's actual LDO were the nature of more variability than budgeted LDO.

Another statistical tool correlation co-efficient to analyze the relationship between budgeted LDO and actual LDO. There should be positive co-relation between budget LDO and Actual LDO. Karl person's coefficient of correlation was used to find correlation between actual LDO and budgeted LDO. Karl person's coefficient of correlation is denoted by (r). By calculating the positive correlation between budgeted LDO and actual LDO can be examined. The actual LDO would change in the same direction, as the budgeted LDO. For this purpose budgeted LDO was assigned by X and assumed to be independent variable and actual LDO was assigned 'Y' and assumed to be dependent variable upon budgeted LDO.

It helped to examine whether increase in budget increased in actual achievement or vice versa, which meant that there should be positive correlation between, budgeted figure and achievement figures. Significance of correlation of ® was tested with probable error (PE). The probable error (PE)=.0082

The details of calculation of 'r' and probable error 'PE' were presented in appendix 3. The value of r is 0.985. This figure of 'r' shows that there was positively perfect correlation between budgeted LDO and actual LDO.

Since r was greater than six times of the probable error 0.0082 the value of r was more significant. So it is no doubtful that actual LDO would go on the same direction that of budgeted LDO.

**Table : 4.19**

**Growth of LDO of Nabil Bank**

| Fiscal Year | LDO | Growth in Amount | Growth % |
|---|---|---|---|
| 2003/04 | 11295 | 2051 | 4.1 |
| 2004/05 | 10200 | (1095) | 9.69 |
| 2005/06 | 13287 | 3087 | 30.26 |
| 2006/07 | 14378 | 1091 | 21.21 |
| 2007/08 | 20182 | 8045 | 40.36 |
| 2008/09 | 25015 | 4833 | 23.94 |

## 4.3 Statistical Tools

### i) Trend Analysis of Total Deposit

Under this topic an efforts has been made to calculate the trend values of deposits of Nabil for five years from mid July 2003/04 to 2008/09 and forecast for next five years from the mid July 2009/10 to 2013/14.

**Table : 4.20**

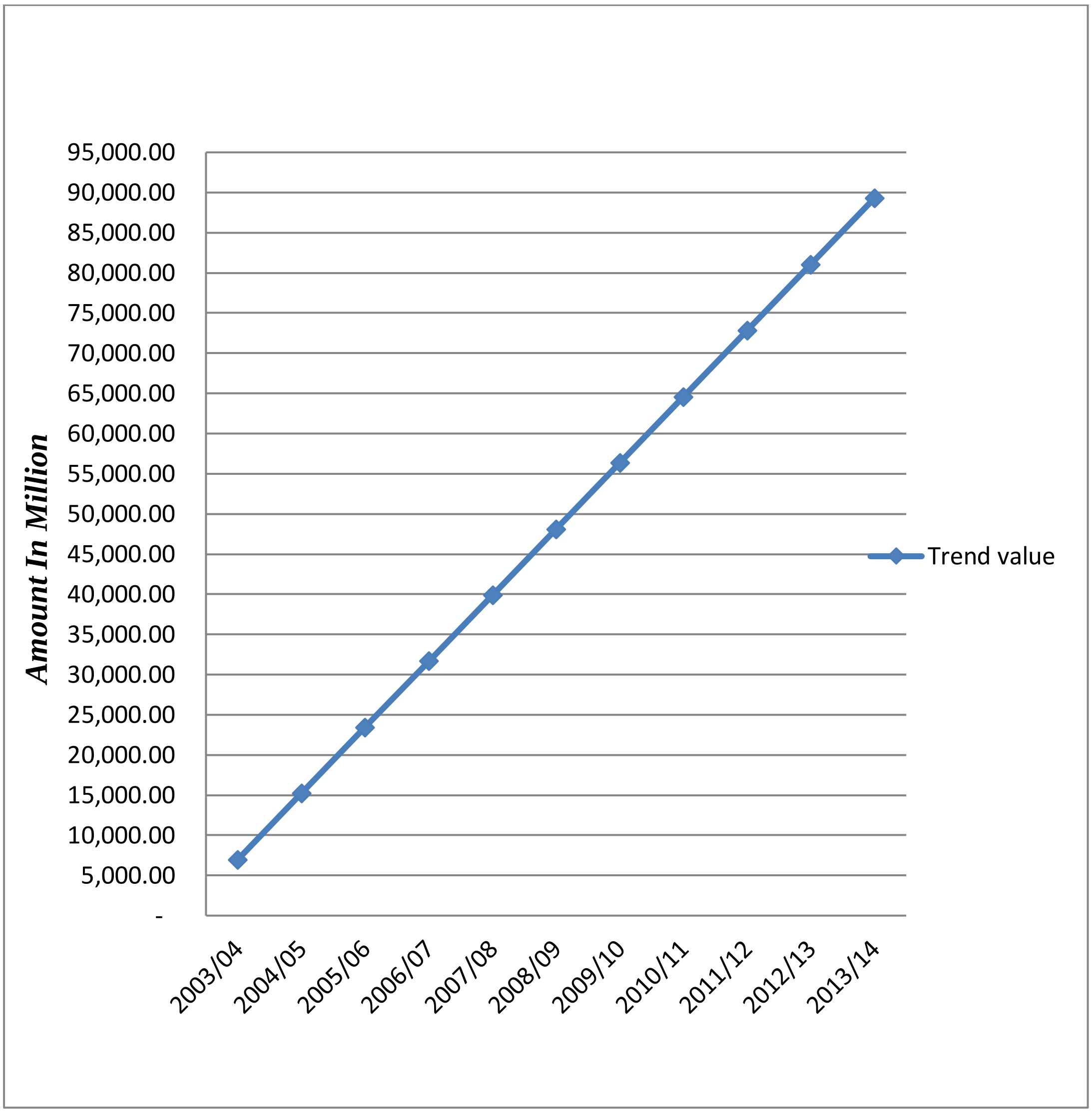
**Trend Analysis of Total Deposit**

| Fiscal year | Trend value | % Change |
|---|---|---|
| 2003/04 | 6,980.75 | |
| 2004/05 | 15,211.93 | 117.91% |
| 2005/06 | 23,443.12 | 54.11% |
| 2006/07 | 31,674.30 | 35.11% |
| 2007/08 | 39,905.48 | 25.99% |
| 2008/09 | 48,136.66 | 20.63% |
| 2009/10 | 56,367.84 | 17.10% |
| 2010/11 | 64,599.02 | 14.60% |
| 2011/12 | 72,830.20 | 12.74% |
| 2012/13 | 81,061.39 | 11.30% |
| 2013/14 | 89,292.57 | 10.15% |

The Table : 4.27 shows the trend value of total deposit from 2009/10 to 2013/14 of Nabil banks. The total deposits of Nabil are in the increasing trend. If all other things remain the same the total deposits of the Nabil will be highest deposit, under the study period. By analyzing the above trend value, it is found that the total deposit position collection of Nabil is better or effective position.

**Figure : 4.7**

**Trend Value of Total Deposit of Nabil Bank**




## ii) Trend Analysis of Total Investment

In this topic, an effort has been made to calculate the trend values of total investment from the mid July 2003/04 to 2008/09 have been calculated and forecasted from July 2009 /10 to 2013/14. The Table : 4.27 shows the trend values of total investment from mid July 2003/04 to 2013/14 of the Nabil BANK.

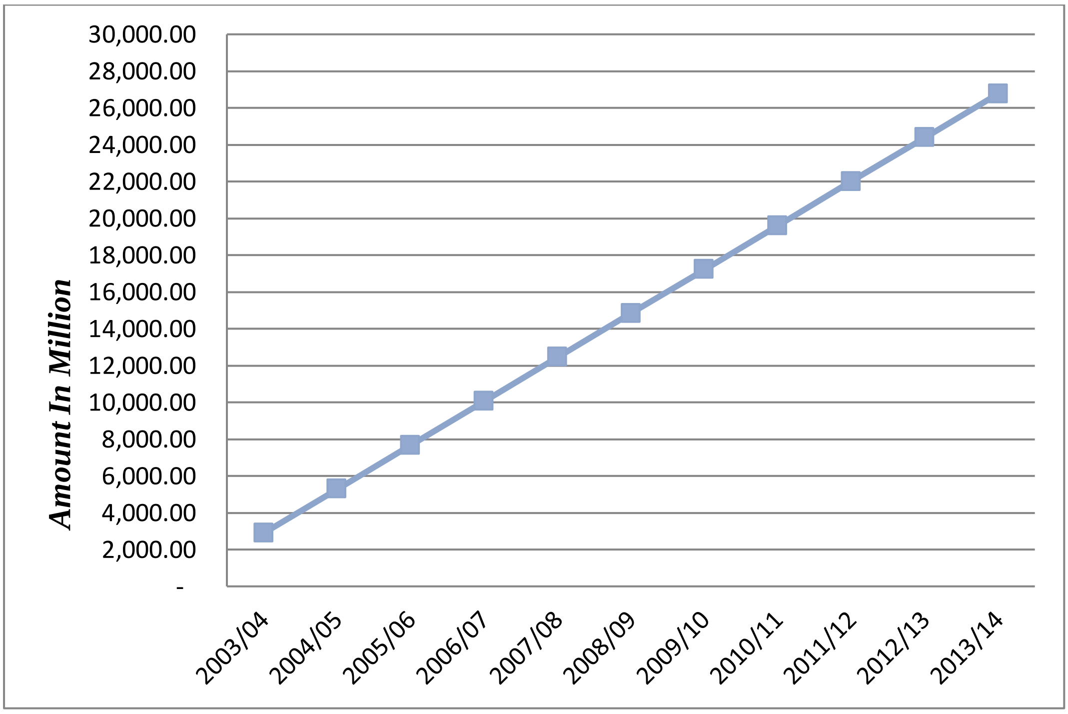
**Table : 4.21**

**Trend Values of Total Investment of Nabil**

| Fiscal year | Trend value | % Change |
|---|---|---|
| 2003/04 | 2,890.28 | - |
| 2004/05 | 5,277.90 | 82.61% |
| 2005/06 | 7,665.53 | 45.24% |
| 2006/07 | 10,053.15 | 31.15% |
| 2007/08 | 12,440.77 | 23.75% |
| 2008/09 | 14,828.39 | 19.19% |
| 2009/10 | 17,216.02 | 16.10% |
| 2010/11 | 19,603.64 | 13.87% |
| 2011/12 | 21,991.26 | 12.18% |
| 2012/13 | 24,378.89 | 10.86% |
| 2013/14 | 26,766.51 | 9.79% |

**Figure : 4.8**

**Trend value of total investment**



**iii) Trend Analysis of Net Profit**

Under this topic, an effort had been made to analyze net profit of Nabil and from the mid July 2003/04to 2008/09 and forecast from the mid July 2009/10 to 2013/14. The Table : 4.30 shows the trend values of net profit for ten years from mid July 2003/04 to 2013/14 of Nabil.

**Table : 4.22**

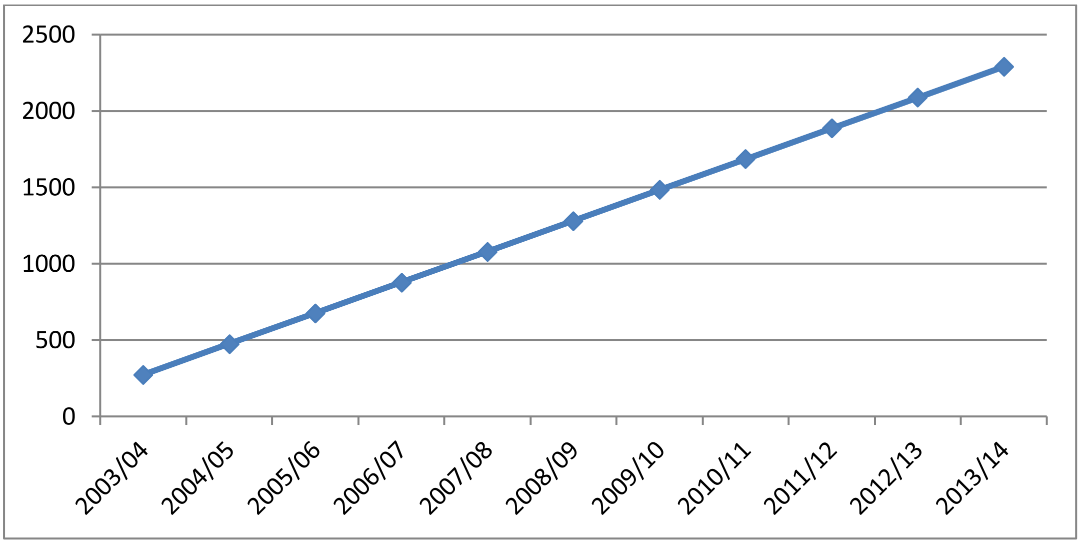
**Trend value of net profit**

| **Fiscal year** | Trend value | % change |
|---|---|---|
| 2003/04 | 273.55 | _ |
| 2004/05 | 475.17 | 73.70 |
| 2005/06 | 676.79 | 42.43 |
| 2006/07 | 878.41 | 29.79 |
| 2007/08 | 1080.03 | 22.95 |
| 2008/09 | 1281.65 | 18.67 |
| 2009/10 | 1483.27 | 15.73 |
| 2010/11 | 1684.89 | 13.59 |
| 2011/12 | 1886.51 | 11.97 |
| 2012/13 | 2088.13 | 10.69 |
| 2013/14 | 2289.75 | 9.66 |

The table shows that net profit is increasing trend. But increasing ratio is decreasing trend. Change % of 2004/05 is 73.70 but in 2013/14 is 9.66%.

**Figure 4. 9**

**Trend value of net profit**




## 4.4 Major Findings of the Study

1. The current ratio of Nabil shows the fluctuating trend during the study period. The ratio ranges from lowest 0.94 in 2003/04 to highest 2.05 in 2005/06 an average ratio of 1.25. In general, the current ratio analysis of banks over the six years period indicates that it has been able to meet its short-term obligations and has satisfactory liquidity position.
2. The cash and bank balances to total deposit ratio of Nabil has fluctuating trend. This ratio is satisfactory, which indicates that its liquidity position is better to serve its customers deposits withdrawal demands.
3. The mean ratio of cash and bank balance to current assets of Nabil is high. It states that liquidity position of Nabil is better in this regard. Nabil is better position in maintaining its cash and bank balance to meet its daily requirement to make the payments on customers deposit and withdraw.
4. The loans and advances to total deposit ratio of Nabil has in increasing trend. The mean ratio is 71.78% which shows that the ratios are satisfactory consistent over the study period.
5. The loans and advances to total deposit ratio of Nabil has in increasing trend. The mean ratio is 71.78% with 4.21% C.V which shows that the ratios are satisfactory consistent over the study period. Coefficient of correlation between deposit and loan and advance is 0.9964. it shows that positive relationship between two

variable. The coefficient of determination $r^2$ is 0.984, which means 98.40 % of the variations in the dependent variable (loan and advance) has been explained by the independent variable (deposit ).

6. Investment to total deposit Nabil bank has in fluctuating trend during the study period.. Its overall figure suggests that the banks have not mobilized significant amount of fund on the government securities and shares and debentures of other companies. the coefficient of correlation between deposit and total investment of Nabil bank is 0.994. it is show the positive relationship between tow variable i.e deposit independent (X) and total investment dependent (Y) . ) moreover ,when consider the value of coefficient of determination $r^2$ it is 0.988 and it means 88.80% of the variations in the dependent variable is explained by the independent variable. Similarly considering the value of r and comparing with 6PEr. It is lesser than 6PEr which reveals that the value is not significant.
7. The coefficient of correlation ‘r’ between total working fund and net profit of the Nabil is 0.991184.Its probable error multiplied by six is found to be 0.029004. Since ‘r’ > 6P.Er and ‘r’ is positive. There is positive correlation between total working fund and net profit during the study period.
8. Return on loans and advances ratio of Nabil is decreasing trend. The mean of the ratio is found to be 2.25% with C.V of 7.85%, which indicates that the ratios are less variable. The average ratio of 2.25% suggests that the earning capacity of the bank loan and advances is satisfactory.
9. The Earning per share of Nabil Bank is very good during the period which show better position of bank in the market. It increases the value of the firm.
10. The Net Profit Margin ratio has been increasing till F/Y 2005/06 and then slightly decreased. Though there is low fluctuation, Nabil Bank has been able to mobilize the resources generated from the operation.
11. Major resources mobilization of NB Bank was at deposit. In this respect they incurred higher cost toward deposit mobilizations.
12. Deposit mobilized by the Bank was found to be considerably growing every year.
13. The targets set for deposit mobilization by the bank were being well met every year.
14. From the data analysis of deposit budget and actual achievements, by coefficient of variance, it is found that, the actual deposits were less variable than the budgeted one.

15. Bank's resources deployment for non-yielding liquid assets (cash and bank balance) increased every year. Thus making supportive to meeting liquidity requirements of the Bank.
16. Major portion of the resources were deployed in LDO.
17. The targets of deployment of fund on LDO were met every year.
18. The data analysis of LDO and deposit, with help of Karl Person's co-efficient of correlation showed that, the deposit and the LDO were not perfectly correlated.
19. The data analysis of Deposit and LDO with the help of coefficient of variation showed that LDO was less variable than the Deposit.
21. Other expenses of the bank were also in increasing trend every year.
22. Interest income amount of the Bank was the highest among other income items in the total Revenue.
23. The amount of interest increased every year corresponding to increase in LDO. There is perfect and positive correlation between interest income and LDO.

# CHAPTER-V
# SUMMARY, CONCLUSION & RECOMMENDATIONS

## 5.1 Summary

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, by playing active role have changed the economic structure of the world. 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.

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 advances or lending for a profitable project, the reason behind it is lack of sound investment policy. The main objective of this study is to evaluate the profit planning policies adopted by, Nabil. The study is totally based on secondary sources of data and required data have been collected by using various published and unpublished sources.

There are 27 commercial banks have been operating in Nepal which are considered to be the population of the study and out of them, Nabil, has been taken as a sample of the study and the collected data have been analyzed by using various financial tools and statistical tools like ratio analysis, correlation coefficient, regression equation etc.

Regarding the profit planning policies of commercial banks there are basically five basic principles of the bank follow while providing the loans i.e. liquidity, profitability, Security and suitability diversification. Various process while making investment decision are applied in the study i.e. set investment process, security analysis, portfolio construction, revision, performance evaluation .The data obtained from annual reports of the concerned banks, likewise the financial statements of six years (from 2003/4 to 2008/09) were selected for the purpose of evaluation.

## 5.2 Conclusions

On the basis analysis and interpretation of various ratios and activities indicating the performance of Nabil banks, the whole study can be deduced as follows:

- The liquidity position of Nabil is good. Nabil has maintained the cash and bank balance to meet the customers demand. Bank has met the normal standard current assets ratio to meet the short term obligation of its customers. Nabil mobilized lots of its funds in order to gain the high profit.

- From the analysis of assets management ratio it can be found that Nabil is in better position. Due to more efficient loan policy, Nabil suffers less from loan loss provision. It takes low credit risk and has sufficient deposits of none bearing interest which can be used in a creation period.

- The interest earned to total outside assets and return on total working fund ratio of Nabil is good position. The return on loan and advances ratio and return on assets of Nabil is lowest of all. The ratio suggests that the earning capacity of the bank's loan and advances is satisfactory. The return on assets of the bank is good in average; it indicates the good earning capacity of the bank assets and good utilization of its assets. The total interest paid to working fund ratio is less than the interest earned to total working fund ratio. So it is profitable position as it is getting higher return that is interest cost.

- Therefore, it was concluded that Nabil Bank is performing well above of the industry standard but also has highest performance among all players in the JV Bank Industry in Nepal. In conclusion, Nabil Bank's past and present earning generating potential is assessed as high in every parameters of profitability in comparison to the industry as well as other joint venture banks in the country.

### 5.3 Recommendations

On the basis of the findings of the study, following recommendations can be drawn:-

1. In commercial banks the liquidity position affects external and internal factors such as saving for investment situations, central banks requirements, the leading policies management capacity etc. In this study it should try to lower the current liabilities to improve its liquidity position. Current ratio of all three banks is not satisfactory. It is below its standard rate 2:1. So the banks are suggested to improve current assets. It means Nabil has higher cash and bank balance which decrease profit of bank, so it is recommended to mobilize cash and bank balance in profitable as loan and advances.
2. LDO of the bank has increased significantly but the part of proper loan assessment and monitoring aspects are not well developed and the infrastructures required (such as trained manpower, logistics etc.) are not adequate. Therefore with such poor infrastructures, it is not advisable to go aggressively in LDO. The Bank should keep adequate required infrastructures to support its objectives.
3. 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 5%. Therefore the bank has to put more focus on the other kind of non-funded activities by which it shall increasing income from other sources than interest to increase its profitability.
4. From the study it is found that Nabil has not invested funds in government securities than that of other banks. Nabil liquidity position shows that it has kept relatively funds as cash and bank balance which doesn't earn any return. This ultimately affects profitability of bank. Investment in government securities i.e. TBs development bonds. Saving certificate are free of risk and highly in nature. So Nabil is recommended to invest its fund in government securities instead of keeping them idle. "Something is better than nothing".

5. Expenses cannot be avoided and always are growing with increasing activities, but it should be optimize 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 from a burden to the gross profit margin (interest margin) of the bank, therefore lowering the other expenses the bank shall enhance its profit.
6. Bank is only established in main city area, bank should be established in remote area where bank will be gain tax discount from government.
7. The human resource is the most important component in a service industry. Thus, utmost care should be taken to increase and maintain high levels of motivation. The bank in this regard needs to review the benefit packages and provide ample training and development opportunities to its staff.
8. To get success itself and to encourage financial and economic development of the country through industrialization and commercialization a commercial bank must mobilize its fund and debentures of other financial and non financial companies. And if other sectors go up positively then bank can utilize its fund more and more by providing them loan or getting sufficient dividend on their share or interest on their debentures. Commercial banks needed to strengthen its economic structure to achieve piped overall development. They have to resort to innovative approach of banking there by bringing professionalism in their business. If they follow those suggestions they can have better reach to the modern innovative and competitive banking markets.

# BIBLIOGRAPHY

## Books:

Bahracharya, B.C. (1998), *Business Statistic and Mathematics,* Kathmandu: Khanal Books Prakashan.

Dongol, R. M. (1997), *Management Accounting,* Kathmandu: Taleju Prakashan.

Fago, G. (2003), *Profit Planning and Control,* Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

Fago, G. & Koirala, K. (2063), *Application of Profit Planning and Control : Theories and Practices,* Kathmandu: K.P. Pustak Bhandar.

Joshi, P.R.(2002), *Research Methodology,* Buddha Academic Publishers.

Pandey, R. Shrestha B. Singh Yamesh Man, Sharma Narendra, Ojha Khagendra. (2005), *Accounting for Financial Analysis and Planning*, Buddha Academic Enterprises Pvt. Ltd.

Welch, Glenn A Ronald, W.Hilton, Paul N Gordon (1999), *Budgeting Profit Planning and Controlling*, 5th edition, New Deli Prentice Hall of India.

## Previous Research Works:

Rimal, K. (2008), *A Study on Profit Planning and Control of Nepal Bangladesh Bank*

Kharel, S. (2009), *Profit Planning and control of commercial bank in Nepal.(a case Study of Nabil , Everest, bank of Kathmandu)*

Rayamajhi, S. J. (2004), *Profitability of NB Bank Ltd with comparison to other joint venture Bank.* Kathmandu

Sharma, B. K. (2002) *Profit planning in commercial banks: A case study of Bangladesh Bank.* Kathamandu

Sharma, K.P. (2006), *Revenue planning and management of public Manufacturing Enterprises: A case study of Singha Durbar Vaidhya Vikash Samiti,* Kathmandu.

## Publications and Reports:

Central Bureau of Statistics, *Statistical pocket Book in Nepal 2006,* GON – NPCS, CBS, Kathmandu

Ministry of finance, *Economic survey (fiscal year 2006/2007)* Government of Nepal

National Planning Commission Secretariat, *The tenth plan*, GON- NPCS Kathmandu

Nepal Rastra Bank, *Quarterly Bulletins* of fiscal year 2005/2006

Nepal Rastra Bank, *Nepal Rastra Samuha* Annual publication 2006/07

UNDP (1998)" Human Development Report

## Websites:

www.google.com

www.nabil bank.com

## Appendix: 1

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

In Million

| Fiscal Year | Current Assets | Current Liabilities | Ratio |
|---|---|---|---|
| 2003/04 | 14,244.04 | 15,135.13 | 0.94 |
| 2004/05 | 14,971.80 | 15,511.63 | 0.97 |
| 2005/06 | 13,857.50 | 6,661.00 | 2.08 |
| 2006/07 | 20,842.70 | 11,742.50 | 1.77 |
| 2007/08 | 23,428.60 | 12,526.25 | 1.87 |
| 2008/09 | 28,375.20 | 13,845.47 | 2.05 |

## Appendix: 2

$$\text{Cash \&bank balance to current ratio} = \frac{\text{Cash \&bank balance}}{\text{current ratio}}$$

In Million

| Fiscal Year | Cash and Bank Balance | Current Assets | Ratio (%) |
|---|---|---|---|
| 2003/04 | 970.49 | 14,244.04 | 6.81% |
| 2004/05 | 559.38 | 14,971.80 | 3.74% |
| 2005/06 | 630.29 | 13,897.50 | 4.54% |
| 2006/07 | 1,399.82 | 20,842.70 | 6.72% |
| 2007/08 | 2,671.14 | 23,428.60 | 11.40% |
| 2008/09 | 3,372.51 | 28,378.20 | 11.88% |

Appendix :3

$$\text{Cash \& bank balance to deposit ratio} = \frac{\text{Cash and bank balance}}{\text{Deposit}}$$

In Million

| Fiscal Year | Cash and Bank Balance | Deposit | Ratio (%) |
|---|---|---|---|
| 2003/04 | 970.49 | 14,119.03 | 6.87% |
| 2004/05 | 559.38 | 14,586.66 | 3.83% |
| 2005/06 | 630.29 | 19,347.40 | 3.26% |
| 2006/07 | 1,399.82 | 23,342.29 | 6.00% |
| 2007/08 | 2,671.14 | 31,915.05 | 8.37% |
| 2008/09 | 3,372.51 | 37,348.26 | 9.03% |

**Appendix : 4**

$$\text{Loan \&advance to current assets ratio} = \frac{\text{loan \&advance}}{\text{current assets}}$$

In Million

| Fiscal Year | Loan & Advances | Current Assets | Ratio (%) |
|---|---|---|---|
| 2003/04 | 8,189.99 | 14,244.04 | 57.50% |
| 2004/05 | 10,586.17 | 14,971.80 | 70.71% |
| 2005/06 | 12,922.50 | 13,897.50 | 92.98% |
| 2006/07 | 15,903.00 | 20,842.70 | 76.30% |
| 2007/08 | 21,759.50 | 23,428.60 | 92.88% |
| 2008/09 | 27,999.00 | 28,378.20 | 98.66% |

## Appendix : 5

$$\text{Loan and advance to deposit ratio} = \frac{\text{loan and advance}}{\text{deposit}}$$

In Million

| Fiscal Year | Loan & Adavances | Deposit | Ratio (%) |
|---|---|---|---|
| 2003/04 | 8,189.99 | 14,119.03 | 58.01% |
| 2004/05 | 10,586.17 | 14,586.66 | 72.57% |
| 2005/06 | 12,922.50 | 19,347.40 | 66.79% |
| 2006/07 | 15,903.00 | 23,342.29 | 68.13% |
| 2007/08 | 21,759.50 | 31,915.05 | 68.18% |
| 2008/09 | 27,999.00 | 37,348.26 | 74.97% |

## Appendix : 6

$$\text{Investment to deposit ratio} = \frac{\text{investment}}{\text{deposit}}$$

In Million

| Fiscal Year | Investment | Deposit | Ratio (%) |
|---|---|---|---|
| 2003/04 | 5,835.95 | 14,119.03 | 41.33% |
| 2004/05 | 4,267.23 | 14,586.66 | 29.25% |
| 2005/06 | 6,178.53 | 19,347.40 | 31.93% |
| 2006/07 | 8,945.31 | 23,342.29 | 38.32% |
| 2007/08 | 9,939.77 | 31,915.05 | 31.14% |
| 2008/09 | 10,826.37 | 37,348.26 | 28.99% |

## Appendix : 7

$$\text{Return to working fund ratio} = \frac{\text{net profit}}{\text{working fund}}$$

In Million

| Fiscal Year | Net Profit | Working Fund | Ratio (%) |
|---|---|---|---|
| 2003/04 | 455.31 | 16,745.48 | 2.72% |
| 2004/05 | 518.64 | 17,186.33 | 3.02% |
| 2005/06 | 635.30 | 22,330.33 | 2.85% |
| 2006/07 | 673.96 | 22,590.00 | 2.98% |
| 2007/08 | 746.47 | 23,780.00 | 3.14% |
| 2008/09 | 1,031.05 | 22,980.00 | 4.49% |

## Appendix : 8

$$\text{Interest earned to working fund ratio} = \frac{\text{interest earned}}{\text{working fund}}$$

In Million

| Fiscal Year | Interest Earned | Working Fund | Ratio (%) |
|---|---|---|---|
| 2003/04 | 1,001.61 | 16,745.48 | 5.98% |
| 2004/05 | 1,068.75 | 17,186.33 | 6.22% |
| 2005/06 | 1,399.98 | 22,330.33 | 6.27% |
| 2006/07 | 1,587.76 | 22,590.00 | 7.03% |
| 2007/08 | 1,998.70 | 23,780.00 | 8.40% |
| 2008/09 | 2,798.48 | 22,980.00 | 12.18% |

**Appendix 9**

**Return on loan and advance ratio**

In Million

| **Fiscal Year** | **Net Profit** | Loan &advance | **Ratio (%)** |
|---|---|---|---|
| 2003/04 | 455.31 | 8,189.99 | 5.56% |
| 2004/05 | 518.64 | 10,586.17 | 4.90% |
| 2005/06 | 635.30 | 12,922.50 | 4.92% |
| 2006/07 | 673.96 | 15,903.00 | 4.24% |
| 2007/08 | 746.47 | 21,759.50 | 3.43% |
| 2008/09 | 1,031.05 | 27,999.00 | 3.68% |

**Appendix : 10**

$$\text{Interest paid to working fund ratio} = \frac{\text{interest exp.}}{\text{working fund}}$$

In Million

| Fiscal Year | Interest Paid | Working Fund | Ratio (%) |
|---|---|---|---|
| 2003/04 | 282.95 | 16,745.48 | 1.69% |
| 2004/05 | 243.54 | 17,186.33 | 1.42% |
| 2005/06 | 357.20 | 22,330.33 | 1.60% |
| 2006/07 | 555.71 | 22,590.00 | 2.46% |
| 2007/08 | 758.43 | 23,780.00 | 3.19% |
| 2008/09 | 1,153.28 | 22,980.00 | 5.02% |

**Appendix: 11**

Calculation of correlation coefficient of budgeted and actual deposit

| Fiscal Year | Budgeted Deposit (X) | $x = X - \overline{X}$ | $(X - \overline{X})^2$ |
|---|---|---|---|
| 2003/04 | 13,995.00 | (8,379.50) | 70,216,020.25 |
| 2004/05 | 14,258.00 | (8,116.50) | 65,877,572.25 |
| 2005/06 | 20,114.00 | (2,260.50) | 5,109,860.25 |
| 2006/07 | 22,348.00 | (26.50) | 702.25 |
| 2007/08 | 28,348.00 | 5,973.50 | 35,682,702.25 |
| 2008/09 | 35,184.00 | 12,809.50 | 164,083,290.25 |
| **Total** | **$\Sigma x$ = 134,247.00** | | **$\Sigma x^2$ = 340,970,147.50** |

$$\text{Mean} = \frac{\Sigma x}{n} = \frac{134247}{6} = 22374.5$$

$$\text{Standard deviation} = \sqrt{\frac{\Sigma(x - \overline{x})^2}{n - 1}}$$

$$= \sqrt{\frac{340970147.50}{6 - 1}}$$

$$= 8257.96$$

$$\text{C.V.} \ \frac{\sigma}{x} = \frac{8257.96}{22374.5} = 0.3690$$

| Fiscal Year | Actual deposit (Y) | $y = Y - \overline{Y}$ | $(Y - \overline{Y})^2$ |
|---|---|---|---|
| 2003/04 | 14,119.03 | (9,324.09) | 86,938,561.09 |
| 2004/05 | 14,586.66 | (8,856.46) | 78,436,795.17 |
| 2005/06 | 19,347.40 | (4,095.72) | 16,774,881.36 |
| 2006/07 | 23,342.29 | (100.83) | 10,165.68 |
| 2007/08 | 31,915.05 | 8,471.94 | 71,773,682.64 |
| 2008/09 | 37,348.26 | 13,905.15 | 193,353,057.47 |
| Total | **140,658.69** | | **447,287,143.41** |

Mean = $\frac{\sum y}{n} = \frac{140658.69}{6} = 28131.74$

Standard deviation $= \sqrt{\frac{\Sigma(x - \overline{x})^2}{n - 1}}$

$= \sqrt{\frac{447287143.41}{6 - 1}}$

$= 9458.19$

C.V. $\frac{\sigma}{\overline{x}} = \frac{9458.19}{28131.74} = 0.336$

| Fiscal Year | $x = X - \overline{X}$ | $y = (Y - \overline{Y})$ | $(X - \overline{X})(Y - \overline{Y})$ |
|---|---|---|---|
| 2003/04 | (8,379.50) | (9,324.09) | 78,131,170.26 |
| 2004/05 | (8,116.50) | (8,856.46) | 71,883,417.01 |
| 2005/06 | (2,260.50) | (4,095.72) | 9,258,363.76 |
| 2006/07 | (26.50) | (100.83) | 2,671.86 |
| 2007/08 | 5,973.50 | 8,471.94 | 50,607,103.72 |
| 2008/09 | 12,809.50 | 13,905.15 | 178,117,954.88 |
| **Total** | | | **388,000,681.49** |

Covariance of Budgeted and Actual Deposit.

$$= \frac{\Sigma\,[(x - \overline{x})\ (y - \overline{y})]}{N - 1}$$

$$= \frac{388000681.49}{5}$$

$= 77600136.29$

= Correlation of Coefficient (r)

$$= \frac{Cov_{BA}}{\sigma_B .\ \sigma_A}$$

$$= \frac{77600136.29}{8257.96 \times 9458.19} = 0.9964$$

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.9928}{6}$$

$= 0.00197$

6 P.Er. = 0.01182

## Appendix 12

### Calculation of correlation coefficient of budgeted and actual LDO

| Fiscal Year | Budgeted LDO( X) | x= X - $\overline{X}$ | (X - $\overline{X}$ )$^2$ |
|---|---|---|---|
| 2003/04 | 9,796.00 | (5,855.00) | 34,281,025.00 |
| 2004/05 | 9,980.00 | (5,671.00) | 32,160,241.00 |
| 2005/06 | 14,080.00 | (1,571.00) | 2,468,041.00 |
| 2006/07 | 15,644.00 | (7.00) | 49.00 |
| 2007/08 | 19,777.00 | 4,126.00 | 17,023,876.00 |
| 2008/09 | 24,629.00 | 8,978.00 | 80,604,484.00 |
| **Total** | **Σx = 93,906.00** | | **Σ (X - $\overline{X}$ )$^2$ = 166,537,716.00** |

Mean = $\frac{\Sigma x}{n} = \frac{93906}{6}$ = 15651

Standard deviation (σ) = $\sqrt{\frac{\Sigma(x - \overline{x})^2}{n - 1}}$

= $\sqrt{\frac{166537716}{6 - 1}}$

= 5771.27

C.V. $\frac{\sigma}{\overline{x}} = \frac{5771.27}{15651}$ = 0.37

| Fiscal Year | Actual LDO (Y) | y=Y-$\overline{Y}$ | (Y-$\overline{Y}$ )$^2$ |
|---|---|---|---|
| 2003/04 | 11,295.00 | (4,431.17) | 19,635,238.03 |
| 2004/05 | 10,200.00 | (5,526.17) | 30,538,518.03 |
| 2005/06 | 13,287.00 | (2,439.17) | 5,949,534.03 |
| 2006/07 | 14,378.00 | (1,348.17) | 1,817,553.36 |
| 2007/08 | 20,182.00 | 4,455.83 | 19,854,450.69 |
| 2008/09 | 25,015.00 | 9,288.83 | 86,282,424.69 |
| **Total** | **Σy = 94,357.00** | | **(Y-$\overline{Y}$ )$^2$ = 164,077,718.83** |

Mean = $\frac{\Sigma y}{n} = \frac{94357}{6}$ = 15726.167

Standard deviation (σ) = $\sqrt{\frac{\Sigma(y - \overline{y})^2}{n - 1}}$

= $\sqrt{\frac{164077718.83}{6 - 1}}$

= 5728.48

C.V. $\frac{\sigma}{\overline{x}}$ = $\frac{5728.48}{15726.167}$ = 0.364

| Fiscal Year | x= X - $\overline{X}$ | y=(Y- $\overline{Y}$ ) | (X - $\overline{X}$ )(Y- $\overline{Y}$ ) |
|---|---|---|---|
| 2003/04 | (5,855.00) | (4,431.17) | 25944480.83 |
| 2004/05 | (5,671.00) | (5,526.17) | 31338891.17 |
| 2005/06 | (1,571.00) | (2,439.17) | 3831930.833 |
| 2006/07 | (7.00) | (1,348.17) | 9437.166667 |
| 2007/08 | 4,126.00 | 4,455.83 | 18384768.33 |
| 2008/09 | 8,978.00 | 9,288.83 | 83395145.67 |
| **Total** | (5,855.00) | | **162,904,654.00** |

Covariance of Budgeted and Actual LDO

$= \frac{\Sigma [(x - \overline{x}) (y - \overline{y})]}{N - 1}$

$= \frac{162904654}{5}$

= 32580930.8

= Correlation of Coefficient (r)

$= \frac{Cov_{BA}}{\sigma_B . \sigma_A}$

$= \frac{32580930.8}{5771.27 \times 5728.48}$ = 0.985

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.970}{6}$$

$$= 0.0082$$

6 P.Er. = 0.0492

**Appendix :13**

**Calculation of Correlation coefficient of deposit and loan advance**

| Fiscal Year | Actual deposit (X) | $x=X-\bar{X}$ | $(X-\bar{X})^2$ |
|---|---|---|---|
| 2003/04 | 14,119.03 | (9,324.09) | 86,938,561.09 |
| 2004/05 | 14,586.66 | (8,856.46) | 78,436,795.17 |
| 2005/06 | 19,347.40 | (4,095.72) | 16,774,881.36 |
| 2006/07 | 23,342.29 | (100.83) | 10,165.68 |
| 2007/08 | 31,915.05 | 8,471.94 | 71,773,682.64 |
| 2008/09 | 37,348.26 | 13,905.15 | 193,353,057.47 |
| Total | **Σx = 140,658.69** | | $\mathbf{\Sigma(X-\bar{X})^2 = 447,287,143.41}$ |

$$\text{Mean} = \frac{\Sigma x}{n} = \frac{140658.69}{6} = 28131.74$$

$$\text{Standard deviation} = \sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$$

$$= \sqrt{\frac{447287143.41}{6-1}}$$

$$= 9458.19$$

$$\text{C.V.} \ \frac{\sigma}{\bar{x}} = \frac{9458.19}{28131.74} = 0.336$$

| Fiscal Year | Loan and advance(y) | $y=Y-\overline{Y}$ | $(Y-\overline{Y})^2$ |
|---|---|---|---|
| 2003/04 | 8,189.99 | -8,036.70 | 64588600.47 |
| 2004/05 | 10,586.17 | -5,640.52 | 31815503.47 |
| 2005/06 | 12,922.50 | -3,304.19 | 10917693.58 |
| 2006/07 | 15,903.00 | -323.69 | 104777.374 |
| 2007/08 | 21,759.50 | 5,532.81 | 30611949.61 |
| 2008/09 | 27999.00 | 11772.31 | 138587204.3 |
| Total | **97360.16** | 0.00 | 276625728.8 |

Mean $\overline{\mathbf{Y}} = \frac{\sum y}{n} = \frac{97360.16}{6} = 16226.69$

Standard deviation $(\sigma) = \sqrt{\frac{\Sigma(y-\overline{y})^2}{n-1}}$

$= \sqrt{\frac{276625728.8}{6-1}}$

$= 7438.08$

C.V. $\frac{\sigma}{\overline{y}} = \frac{7438.08}{16226.69} = 0.46$

| Fiscal Year | $x= X-\overline{X}$ | $y=(Y-\overline{Y})$ | $(X-\overline{X})(Y-\overline{Y})$ |
|---|---|---|---|
| 2003/04 | (9,324.09) | -8,036.70 | 74934914.1 |
| 2004/05 | (8,856.46) | -5,640.52 | 49955039.76 |
| 2005/06 | (4,095.72) | -3,304.19 | 13533037.07 |
| 2006/07 | (100.83) | -323.69 | 32637.6627 |
| 2007/08 | 8,471.94 | 5,532.81 | 46873634.35 |
| 2008/09 | 13,905.15 | 11772.31 | 163695736.4 |
| **Total** | 0 | **0** | **349024999.34** |

Covariance of Budgeted and Actual LDO

$$= \frac{\Sigma\,[(x - \overline{x})\ (y - \overline{y})]}{N - 1}$$

$$= \frac{349024999.34}{5}$$

= 69804999.868

= Correlation of Coefficient (r)

$$= \frac{Cov_{BA}}{\sigma_B \cdot \sigma_A}$$

$$= \frac{69804999.868}{9458.19 \times 7438.08} = 0.992$$

$$\text{P.Er.} = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.984}{6}$$

= 0.0043

6 P.Er. = 0.0258

**Correlation coefficient of deposit and total investment.**

| Fiscal Year | Actual deposit (X) | $x = X - \overline{X}$ | $(X - \overline{X})^2$ |
|---|---|---|---|
| 2003/04 | 14,119.03 | (9,324.09) | 86,938,561.09 |
| 2004/05 | 14,586.66 | (8,856.46) | 78,436,795.17 |
| 2005/06 | 19,347.40 | (4,095.72) | 16,774,881.36 |
| 2006/07 | 23,342.29 | (100.83) | 10,165.68 |
| 2007/08 | 31,915.05 | 8,471.94 | 71,773,682.64 |
| 2008/09 | 37,348.26 | 13,905.15 | 193,353,057.47 |
| Total | **140,658.69** | | **447,287,143.41** |

$$\text{Mean} = \frac{\sum x}{n} = \frac{140658.69}{6} = 28131.74$$

Standard deviation $= \sqrt{\dfrac{\Sigma(x - \overline{x})^2}{n - 1}}$

$= \sqrt{\dfrac{447287143.41}{6 - 1}}$

$= 9458.19$

C.V. $\dfrac{\sigma}{\overline{x}} = \dfrac{9458.19}{28131.74} = 0.336$

| Fiscal Year | investment (Y) | $y=Y-\bar{Y}$ | $(Y-\bar{Y})^2$ |
|---|---|---|---|
| 2003/04 | 5,835.95 | -1,829.58 | 3347351 |
| 2004/05 | 4,267.23 | -3,398.30 | 11548420 |
| 2005/06 | 6,178.53 | -1,487.00 | 2211159 |
| 2006/07 | 8,945.31 | 1,279.78 | 1637845 |
| 2007/08 | 9,939.77 | 2,274.24 | 5172183 |
| 2008/09 | 10,826.37 | 3,160.84 | 9990931 |
| **Total** | **45993.16** | | **$\Sigma(Y-\bar{Y})^2$ = 33,907,889.00** |

Mean $= \dfrac{\Sigma y}{n} = \dfrac{45993.16}{6} = 7665.53$

Standard deviation $= \sqrt{\dfrac{\Sigma(y - \overline{y})^2}{n - 1}}$

$= \sqrt{\dfrac{33907889}{6 - 1}}$

$= 2604.14$

C.V. $\dfrac{\sigma}{\overline{y}} = \dfrac{2604.14}{7665.53} = 0.339$

| Fiscal Year | $x = X - \overline{X}$ | $y = (Y - \overline{Y})$ | $(X - \overline{X})(Y - \overline{Y})$ |
|---|---|---|---|
| 2003/04 | (9,324.09) | -1,829.58 | 17059168.58 |
| 2004/05 | (8,856.46) | -3,398.30 | 30096908.02 |
| 2005/06 | (4,095.72) | -1,487.00 | 6090335.64 |
| 2006/07 | (100.83) | 1,279.78 | -129040.2174 |
| 2007/08 | 8,471.94 | 2,274.24 | 19267224.83 |
| 2008/09 | 13,905.15 | 3,160.84 | 43951954.33 |
| **Total** | 0 | **0** | 116336551.17 |

Covariance of Budgeted and Actual LDO

$$= \frac{\Sigma [(x - \overline{x})\ (y - \overline{y})]}{N - 1}$$

$$= \frac{116336551.17}{5}$$

= 23267310.234

= Correlation of Coefficient (r)

$$= \frac{Cov_{BA}}{\sigma_B . \sigma_A}$$

$$= \frac{23267310.234}{2604.14 \times 9458.19} = 0.994$$

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.988}{6}$$

= 0.0013

6 P.Er. = 0.0078

**Appendix : 14**

Trend analysis of deposit of Nabil Bank

| | Deposit (Y) | X=t-3 | $X^2$ | XY | Yc=A+bX |
|---|---|---|---|---|---|
| 2003/04 | 14,119.03 | -2 | 4 | (28,238.06) | 6,980.75 |
| 2004/05 | 14,586.66 | -1 | 1 | (14,586.66) | 15,211.93 |
| 2005/06 | 19,347.40 | 0 | 0 | - | 23,443.12 |
| 2006/07 | 23,342.29 | 1 | 1 | 23,342.29 | 31,674.30 |
| 2007/08 | 31,915.05 | 2 | 4 | 63,830.10 | 39,905.48 |
| 2008/09 | 37,348.26 | 3 | 9 | 112,044.78 | 48,136.66 |
| **Total** | **Σ (Y) 140,658.69** | | **$\Sigma X^2$ = 19.00** | **Σ(XY) = 156,392.45** | |

$$a = \frac{\Sigma y}{n} = \frac{140658.69}{6} = 23443.115$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{156392.45}{19} = 8231.18$$

| Fiscal Year | X=t-3 | Yc=A+bX |
|---|---|---|
| 2009/10 | 4 | 56,367.84 |
| 2010/11 | 5 | 64,599.02 |
| 2011/12 | 6 | 72,830.20 |
| 2012/13 | 7 | 81,061.39 |
| 2013/14 | 8 | 89,292.57 |

**Appendix :15**

**Trend analysis of total investment**

| Fiscal Year | Investment (Y) | X=t-3 | $X^2$ | XY | Yc=A+bX |
|---|---|---|---|---|---|
| 2003/04 | 5,835.95 | -2 | 4 | (11,671.90) | 2,890.28 |
| 2004/05 | 4,267.23 | -1 | 1 | (4,267.23) | 5,277.90 |
| 2005/06 | 6,178.53 | 0 | 0 | - | 7,665.53 |
| 2006/07 | 8,945.31 | 1 | 1 | 8,945.31 | 10,053.15 |
| 2007/08 | 9,939.77 | 2 | 4 | 19,879.54 | 12,440.77 |
| 2008/09 | 10,826.37 | 3 | 9 | 32,479.11 | 14,828.39 |
| **Total** | **Σy = 45,993.16** | | **$\Sigma X^2$ = 19** | **Σ(XY) = 45,364.83** | |

$$a = \frac{\Sigma y}{n} = \frac{45993.16}{6} = 7665.53$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{45364.83}{19} = 2387.62$$

| Fiscal Year | X=t-3 | Yc=A+bX |
|---|---|---|
| 2009/10 | 4 | 17,216.02 |
| 2010/11 | 5 | 19,603.64 |
| 2011/12 | 6 | 21,991.26 |
| 2012/13 | 7 | 24,378.89 |
| 2013/14 | 8 | 26,766.51 |
| **Total** | | |

## Appendix : 16

## Trend analysis of net profit

| Fiscal Year | Net Profit (Y) | X=t-3 | $X^2$ | X Y | Yc=A+bX |
|---|---|---|---|---|---|
| 2003/04 | 455.31 | -2 | 4 | (910.62) | 273.55 |
| 2004/05 | 518.64 | -1 | 1 | (518.64) | 475.17 |
| 2005/06 | 635.30 | 0 | 0 | - | 676.79 |
| 2006/07 | 673.96 | 1 | 1 | 673.96 | 878.41 |
| 2007/08 | 746.47 | 2 | 4 | 1,492.94 | 1,080.03 |
| 2008/09 | 1,031.05 | 3 | 9 | 3,093.15 | 1,281.65 |
| **Total** | **ΣY = 4,060.73** | | **$\Sigma X^2$ 19** | **ΣXY = 3,830.79** | |

$$a = \frac{\Sigma y}{n} = \frac{4060.73}{6} = 676.79$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{3830.79}{19} = 201.62$$

| Fiscal Year | X=t-3 | Yc=A+bX |
|---|---|---|
| 2009/10 | 4 | 1,483.27 |
| 2010/11 | 5 | 1,684.89 |
| 2011/12 | 6 | 1,886.51 |
| 2012/13 | 7 | 2,088.13 |
| 2013/14 | 8 | 2,289.75 |
| **Total** | | |

| Fiscal Year | Actual deposit (Y) | y=Y-Ȳ | (Y-Ȳ)2 |
|---|---|---|---|
| 2003/04 | 14,119.03 | (9,324.09) | 86,938,561.09 |
| 2004/05 | 14,586.66 | (8,856.46) | 78,436,795.17 |
| 2005/06 | 19,347.40 | (4,095.72) | 16,774,881.36 |
| 2006/07 | 23,342.29 | (100.83) | 10,165.68 |
| 2007/08 | 31,915.05 | 8,471.94 | 71,773,682.64 |
| 2008/09 | 37,348.26 | 13,905.15 | 193,353,057.47 |
| Total | **140,658.69** | | **447,287,143.41** |

| Fiscal Year | Budgeted Deposit (X) | $x = X - \overline{X}$ | $(X - \overline{X})^2$ |
|---|---|---|---|
| 2003/04 | 13,995.00 | (8,379.50) | 70,216,020.25 |
| 2004/05 | 14,258.00 | (8,116.50) | 65,877,572.25 |
| 2005/06 | 20,114.00 | (2,260.50) | 5,109,860.25 |
| 2006/07 | 22,348.00 | (26.50) | 702.25 |
| 2007/08 | 28,348.00 | 5,973.50 | 35,682,702.25 |
| 2008/09 | 35,184.00 | 12,809.50 | 164,083,290.25 |
| **Total** | **134,247.00** | | **340,970,147.50** |

| Fiscal Year | $x = X - \overline{X}$ | y=(Y-Ȳ) | $(X - \overline{X})$*(Y-Ȳ) |
|---|---|---|---|
| 2003/04 | (8,379.50) | (9,324.09) | 78,131,170.26 |
| 2004/05 | (8,116.50) | (8,856.46) | 71,883,417.01 |
| 2005/06 | (2,260.50) | (4,095.72) | 9,258,363.76 |
| 2006/07 | (26.50) | (100.83) | 2,671.86 |
| 2007/08 | 5,973.50 | 8,471.94 | 50,607,103.72 |
| 2008/09 | 12,809.50 | 13,905.15 | 178,117,954.88 |
| **Total** | | | **388,000,681.49** |

| Fiscal Year | Budgeted Deposit(X) | $x = X - \overline{X}$ | $(X - \overline{X})^2$ |
|---|---|---|---|
| 2003/04 | 9,796.00 | (5,855.00) | 34,281,025.00 |
| 2004/05 | 9,980.00 | (5,671.00) | 32,160,241.00 |
| 2005/06 | 14,080.00 | (1,571.00) | 2,468,041.00 |
| 2006/07 | 15,644.00 | (7.00) | 49.00 |
| 2007/08 | 19,777.00 | 4,126.00 | 17,023,876.00 |
| 2008/09 | 24,629.00 | 8,978.00 | 80,604,484.00 |
| **Total** | **93,906.00** | | **166,537,716.00** |

| Fiscal Year | Actual Deposit (Y) | $y = Y - \bar{Y}$ | $(Y - \bar{Y})2$ |
|---|---|---|---|
| 2003/04 | 11,295.00 | (4,431.17) | 19,635,238.03 |
| 2004/05 | 10,200.00 | (5,526.17) | 30,538,518.03 |
| 2005/06 | 13,287.00 | (2,439.17) | 5,949,534.03 |
| 2006/07 | 14,378.00 | (1,348.17) | 1,817,553.36 |
| 2007/08 | 20,182.00 | 4,455.83 | 19,854,450.69 |
| 2008/09 | 25,015.00 | 9,288.83 | 86,282,424.69 |
| **Total** | **94,357.00** | | **164,077,718.83** |

| Fiscal Year | Deposit (Y) | X=t-3 | X2 | X*Y | Yc=A+bX |
|---|---|---|---|---|---|
| 2003/04 | 14,119.03 | -2 | 4 | (28,238.06) | 6,980.75 |
| 2004/05 | 14,586.66 | -1 | 1 | (14,586.66) | 15,211.93 |
| 2005/06 | 19,347.40 | 0 | 0 | - | 23,443.12 |
| 2006/07 | 23,342.29 | 1 | 1 | 23,342.29 | 31,674.30 |
| 2007/08 | 31,915.05 | 2 | 4 | 63,830.10 | 39,905.48 |
| 2008/09 | 37,348.26 | 3 | 9 | 112,044.78 | 48,136.66 |
| **Total** | **140,658.69** | | **19.00** | **156,392.45** | |

| Fiscal Year | X=t-3 | Yc=A+bX |
|---|---|---|

| | | |
|---|---|---|
| 2009/10 | 4 | 56,367.84 |
| 2010/11 | 5 | 64,599.02 |
| 2011/12 | 6 | 72,830.20 |
| 2012/13 | 7 | 81,061.39 |
| 2013/14 | 8 | 89,292.57 |
| **Total** | | |

| Fiscal Year | Investment (Y) | X=t-3 | X2 | X*Y | Yc=A+bX |
|---|---|---|---|---|---|
| 2003/04 | 5,835.95 | -2 | 4 | (11,671.90) | 2,890.28 |
| 2004/05 | 4,267.23 | -1 | 1 | (4,267.23) | 5,277.90 |
| 2005/06 | 6,178.53 | 0 | 0 | - | 7,665.53 |
| 2006/07 | 8,945.31 | 1 | 1 | 8,945.31 | 10,053.15 |
| 2007/08 | 9,939.77 | 2 | 4 | 19,879.54 | 12,440.77 |
| 2008/09 | 10,826.37 | 3 | 9 | 32,479.11 | 14,828.39 |
| **Total** | **45,993.16** | | **19** | **45,364.83** | |

| Fiscal Year | X=t-3 | Yc=A+bX |
|---|---|---|
| 2009/10 | 4 | 17,216.02 |
| 2010/11 | 5 | 19,603.64 |
| 2011/12 | 6 | 21,991.26 |
| 2012/13 | 7 | 24,378.89 |
| 2013/14 | 8 | 26,766.51 |
| **Total** | | |

| Fiscal Year | Net Prrofit (Y) | X=t-3 | X2 | X*Y | Yc=A+bX |
|---|---|---|---|---|---|
| 2003/04 | 455.31 | -2 | 4 | (910.62) | 273.55 |
| 2004/05 | 518.64 | -1 | 1 | (518.64) | 475.17 |
| 2005/06 | 635.30 | 0 | 0 | - | 676.79 |
| 2006/07 | 673.96 | 1 | 1 | 673.96 | 878.41 |
| 2007/08 | 746.47 | 2 | 4 | 1,492.94 | 1,080.03 |

| | | | | | |
|---|---|---|---|---|---|
| 2008/09 | 1,031.05 | 3 | 9 | 3,093.15 | 1,281.65 |
| **Total** | **4,060.73** | | **19** | **3,830.79** | |

| Fiscal Year | X=t-3 | Yc=A+bX |
|---|---|---|
| 2009/10 | 4 | 1,483.27 |
| 2010/11 | 5 | 1,684.89 |
| 2011/12 | 6 | 1,886.51 |
| 2012/13 | 7 | 2,088.13 |
| 2013/14 | 8 | 2,289.75 |
| **Total** | | |